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## "Upstream Thinking": the catchment management approach of a water provider

E. Grand-Clement (1,2), M. Ross (2), D. Smith (2), K. Anderson (1), D. Luscombe (1), N. Le Feuvre (1), and R.E. Brazier (1)

(1) Geography Department, Exeter University, Exeter, United Kingdom (e.grand-clement@exeter.ac.uk), (2) South West Water, Exeter, United Kingdom

Human activities have large impacts on water quality and provision. Water companies throughout the UK are faced with the consequences of poor land management and need to find appropriate solutions to decreasing water quality. This is particularly true in the South West of England, where 93% of the drinking water is sourced from rivers and reservoirs: large areas of drained peatlands (i.e. Exmoor and Dartmoor National Parks) are responsible for a significant input of dissolved organic carbon (DOC) discolouring the water, whilst poorly managed farming activities can lead to diffuse pollution. Alongside the direct environmental implications, poor water quality is partly increasing water treatment costs and will drive significant future investment in additional water treatment, with further repercussions on customers. This highlights the need for water companies throughout the UK, and further afield, to be more involved in catchment management.

"Upstream Thinking" is South West Water's (SWW) approach to catchment management, where working with stakeholders to improve water quality upstream aims to avoid increasingly costly solutions downstream. This approach has led the company to invest in two major areas of work:

- (1) The Farmland programme where problematic farm management practices and potential solutions are identified, typically 40% of the required investment is then offered in exchange for a legal undertaking to maintain the new farm assets in good condition for 25 years;
- (2) The Mires programme which involves heavy investment in peatland restoration through the blocking of open ditches in order to improve water storage and quality in the long term.

From these two projects, it has been clear that stakeholder involvement of groups such as local farmers, the Westcountry Rivers Trust, the Exmoor National Park Authority, the Environment Agency, Natural England and the Exmoor Society is essential, first because it draws in catchment improvement expertise which is not directly held within the company, and second because it shows how local communities and groups are considered and valued by the company. Monitoring changes and providing a solid scientific base is also undertaken to prove the concept and justify any investment.

The work carried out so far has highlighted that SWW's collaborative approach to catchment management is changing the relationship between private water suppliers in the UK and stakeholders or groups having an impact on water quality. This results in a progressive move from a situation where the polluter has to pay, to rewarding providers of clean water instead. The value of ecosystem payments of this kind is being discussed with the appropriate authorities (i.e. Natural England, and the Department for Environment, Food and Rural Affairs) so that it can form part of ensuring sustainable water supplies in future, with all the environmental and ecological benefits of clear raw waters in rivers, lakes and streams.