Integrated approaches for mitigation control – one example from England and Wales

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In this paper we will present an approach to determine a set of common diffuse pollution mitigation options for phosphorus, nitrate, sediment and faecal indicator organisms and to be able to assess their cost and mitigation potential in a unified and integrated manner. The work has been used to help guide policy decisions towards packages of mitigation methods that might be used to make policy instruments for England and Wales. The approach of adopting mitigation and cost modelling frameworks for helping policy planners target priorities for mitigating diffuse water pollution is a useful 'top down' exercise and can yield useful information for planning priorities where and how best options might be most effectively targeted and for least cost but of greatest potential benefit. The approach also highlights potential diffuse water pollution 'trade-offs', and with future development could link to impacts on gaseous emissions. However, in conducting this policy relevant exercise, it is also evident that there is a notable absence of robust, locality-specific evidence for how mitigation methods work in the field under a range of conditions. We conclude that these approaches are required at the science policy interface and are a first step in the important activity of establishing what we know (and what we do not know) about the performance and cost (and affordability and likelihood of implementation). The future applied research agenda can in part be set to address the most sensitive uncertainties.

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