

Recent research supporting the development of RBMPs and targeted implementation of the Water Framework Directive in England and Wales

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The implementation of the Water Framework Directive requires the development of River Basin Management Plans, which necessitate the spatial targeting of mitigation measures aimed at reducing diffuse pollution losses to water bodies. In the UK, draft RBMPs have recently been published and are currently subject to public consultation. Their development is dependent on sound scientific methods which enable policymakers to consider costs, benefits, and locational aspects associated with different mitigation options.

Recent examples of relevant research in England and Wales include:

- expert knowledge coupled with environmental models and a genetic algorithm approach to identify optimal cost-effective solutions for reducing loads of multiple pollutants
- use of agri-environment data with geostatistical modelling to evaluate cost-effective scenarios for new Catchment Sensitive Farming areas
- geochemical tracing to identify the relative importance of different sediment and phosphorus sources on surface water quality
- a spatial targeting methodology to help promote the wider adoption of on-farm woodland to help mitigate diffuse pollution losses to surface waters