

Dear Dr Stamm,

Many thanks for considering our paper for submission to HESS. We are grateful for the detailed reviewers' comments and have provided comprehensive responses to all points. Clarification of our approach and results through additional figures and tables makes the scientific contribution of this manuscript more explicit and supports its significance. Furthermore, the second reviewer is correct that this manuscript considers, quite extensively, the management of land. The argument presented here is that preservation or improvement of water quality under the legislative requirements of the EU Water Framework Directive in agricultural catchments, must consider land use (regulating the availability of sediment) as well as hydrological flow pathways (for source connectivity and sediment delivery). The authors are therefore confident that the wider scientific community, particularly those with an interest in catchment hydrology, water resource management and catchment scale pollutant transport will find value in data presented and discussed in the manuscript.

Kind regards,

Sophie Sherriff on behalf of all co-authors.