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Dear Professor Helm and Colleagues

Natural Capital Committee: Final Response to the 25 Year Environment Plan Progress Report

We, and our colleagues involved in freshwater research, are writing to warmly welcome the findings of the Natural Capital Committee's 'Final Response to the 25 Year Environment Plan Progress Report'.

We would like, in particular, to strongly endorse the report's recommendations for greater recognition and monitoring of small waters (ponds, small lakes, ditches, upland waters and headwater streams), and suggest that a concerted effort should now be made to establish an appropriate monitoring programme, and set practical protection, restoration and creation targets for these critical waterbodies.

Small waterbodies make up around 80% of England's freshwaters¹, and support over 70% of freshwater species^{2,3} yet they still lack any formal monitoring in the UK. Recent data shows that actively creating and managing small waterbodies has the potential to bring rapid and significant biodiversity benefits at a time of increasing threat and need^{3,4,5,6}. However, for historic reasons, small waters still remain marginalised in many policies that seek to protect the water environment^{7,8,9}.

Post-Brexit policy change gives us the opportunity to correct these important shortcomings and we would like to urge the Office for Environmental Protection and other government agencies to urgently support the following steps:

- **Implement a monitoring programme for small water bodies which meshes into the current programmes of river and lake monitoring.** It is not possible to assess the effectiveness of measures to protect the freshwater environment without knowledge of small waterbodies. Establishing a monitoring programme need not be an onerous task: a stratified selection of sites makes representative monitoring viable, and well established WFD-compatible monitoring methods are already available including the widely used PSYM national assessment system for small lakes and ponds, developed by Freshwater Habitats Trust¹⁰. Other methodologies are also in development, including the use of citizen science with eDNA and new rapid water quality testing methods, pioneered by FHT and others¹¹.
- **Set targets for small waterbody quality and numbers, and integrate these into planning and agri-environment policy, including the Environment Act.** Water environmental law and regulation is heavily based on the view that 'bigger is better'^{7,8,9}. However, for freshwaters this is a false assumption: small waterbodies have unique characteristics, regulate the quality of downstream waters and have an independent value at least equal to, and very different from, larger waters^{2,12,13,14}. These waterbodies need specific protection targets because their value is not being secured by existing policy approaches.

- **Adopt the Wildlife and Countryside Link recommendations¹⁵ for a specific funded programme of creation, protection and enhancement of small waters as part of the next Spending Review.** Without resourcing, small waters will not be protected and we believe that adequately resourced practical programmes, including clean water pond creation and restoration, restoring headwater streams, fens and flushes and recreating networks of floodplain wetlands, are amongst the most cost-effective remedies for reversing the on-going decline of the water environment. Moreover, without investment in headwater stream restoration, there is a high risk that investments in improvements to the downstream water environment will be compromised.

These steps have three major practical benefits: they are simple, have clearly evidenced benefits and, with comparatively modest resources, can be delivered at scale.

The timely advice of the Natural Capital Committee comes at a critical moment if we are to avoid a seriously missed opportunity to act for this vital part of the water environment.

We would welcome an opportunity to meet with you to discuss how best to help the new Office for Environmental Protection to build on the Natural Capital Committee's report to better support the protection of the freshwater environment.

With best wishes

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 Professor David Sear (Professor in Physical Geography, University of Southampton)
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 Professor Nigel Willby (Professor in Biological and Environmental Sciences, University of Stirling)
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