



## **Distributed hydrological models to quantify ecosystem services and inform land use decisions in Europe**

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Landcover conversion is one of the largest anthropogenic threats to ecological services globally; in the EU around 1500 ha of biodiverse land are lost every day to changes in infrastructure and urbanisation. This land conversion directly affects key ecosystem services that support natural infrastructure, including water flow regulation and the mitigation of flood risks. We assess the sensitivity of runoff production to landcover in the UK at a high spatial resolution, using a distributed hydrologic model in the regional land-surface model JULES (Joint UK Land Environment Simulator). This work, as part of the wider initiative 'NaturEtrade', will create a novel suite of easy-to-use tools and mechanisms to allow EU landowners to quickly map and assess the value of their land in providing key ecosystem services.