

Flood and Coastal Erosion Risk Management R&D Programme and National Operations

A new flood hydrology road map for the UK

A new vision for flood hydrology

We are working with others to outline a future vision for flood hydrology and a plan to deliver that vision. We'd like to collect by survey your views on our draft material.

<https://www.smartsurvey.co.uk/s/FloodHydrology/>

What is flood hydrology?

Hydrology is the science that tracks water from the sky to the sea. For flooding we use hydrology to convert rainfall and snow into flows for forecasting purposes or to estimate long-term flood risk. We also use hydrology to understand how catchments respond to changes in landscape, to understand the role of lakes and groundwater and to design and manage dams and urban space. Hydrology underpins all our inland flood risk work.

Why now?

It is time to act because:

- We need to reflect that risk changes over time
- We have to understand the spatial nature of flooding and the effect of interventions across catchments;
- The National Flood Resilience Review calls for an ambitious, long-term, joined-up approach to hydrology and meteorology for flood events.
- We are seeing disparate and competing hydrology research proposals in the Defra/EA Joint Research Programme. The roadmap will allow us to bring these needs together and prioritise them properly.

Who is involved?

Although this is Environment Agency led, it is for all of us. We are working with government, academics and industry. Last year we received questionnaire responses representing the views of over 240 people and held a workshop attended by over 50 people representing different organisations. Now we are sharing the draft outputs via an online survey for wider feedback.

We are looking at the problem through 4 themes:

- 1) **Ways of working** in the UK
- 2) **Methods** used in UK flood hydrology
- 3) **Data** used to drive those methods
- 4) **Scientific understanding** of UK flood hydrology

What will we do?

The roadmap project will:

- Develop a vision of flood hydrology 25 years from now
- Create a list of prioritised work areas to influence research councils, our joint EA/Defra R&D programme, the wider research community and operational work.
- Create a strong community of flood hydrology expertise
- Improve awareness of how important flood hydrology is to the flood risk industry

Who is it for?

The project will cover all inland flood risk sources: rivers and lakes, surface water, groundwater and reservoirs. At the Environment Agency, our responsibility is limited to England, but the Joint R&D Programme serves England and Wales. By working with SEPA, Northern Ireland Dept. for Infrastructure and the right partners, we hope our project outputs will be used across the UK.

What next?

We have generated valuable material by questionnaire and at the workshop. We would now like your feedback on this work and any new ideas before we finally prioritise work areas, write a delivery plan and create the flood hydrology road map document.

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The survey will be open from Monday 29th April until Sunday 19th May 2019.

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