

Flooding

FLOOD ALERT

WHY: DO WE NEED TO UNDERSTAND THE THREAT FROM FLOODING?

BECAUSE: WE NEED TO REDUCE THE ADVERSE SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS OF FLOODING

Floods are natural phenomena providing and supporting a wide range of ecosystem services yet also result in loss of lives and damage to property and infrastructure. The Summer 2007 UK floods were estimated to have cost the UK economy £3.2 billion.

We can prepare for, and reduce, the physical and socio-economic impacts of flooding if we can more accurately forecast short-term and future events. The Pitt Review identified CEH's hydrological modelling approach as providing a significant additional understanding of real-time flood risk and as a key building block to further developments.



Centre for
Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL

enquiries@ceh.ac.uk
www.ceh.ac.uk



NATURAL
ENVIRONMENT
RESEARCH COUNCIL

Flooding



DELIVERING IMPACT

CEH developed the UK's first flood risk maps. Our hydrology data underpin insurers' and regulators' national flood maps.

CEH's 1975 Flood Studies Report was the first UK assessment of flood risk; the methodology was adopted around the world.

The Met Office rainfall models and CEH river flow models are used by the National Flood Forecasting Centre to provide more accurate early warnings and enable rapid emergency responses.

CEH's Flood Estimation Handbook is the industry standard for flood frequency prediction and infrastructure planning.

FUTURE CHALLENGES

To plan for and better quantify the impacts of climate and land use change on extreme flood characteristics.

Improve flood modelling in locations with no or limited hydrometric data, for planners and policy-makers.

Develop real-time flood forecasting at finer scale resolutions to provide more accurate, timely and location-specific warnings.



Centre for
Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL

enquiries@ceh.ac.uk
www.ceh.ac.uk



NATURAL
ENVIRONMENT
RESEARCH COUNCIL