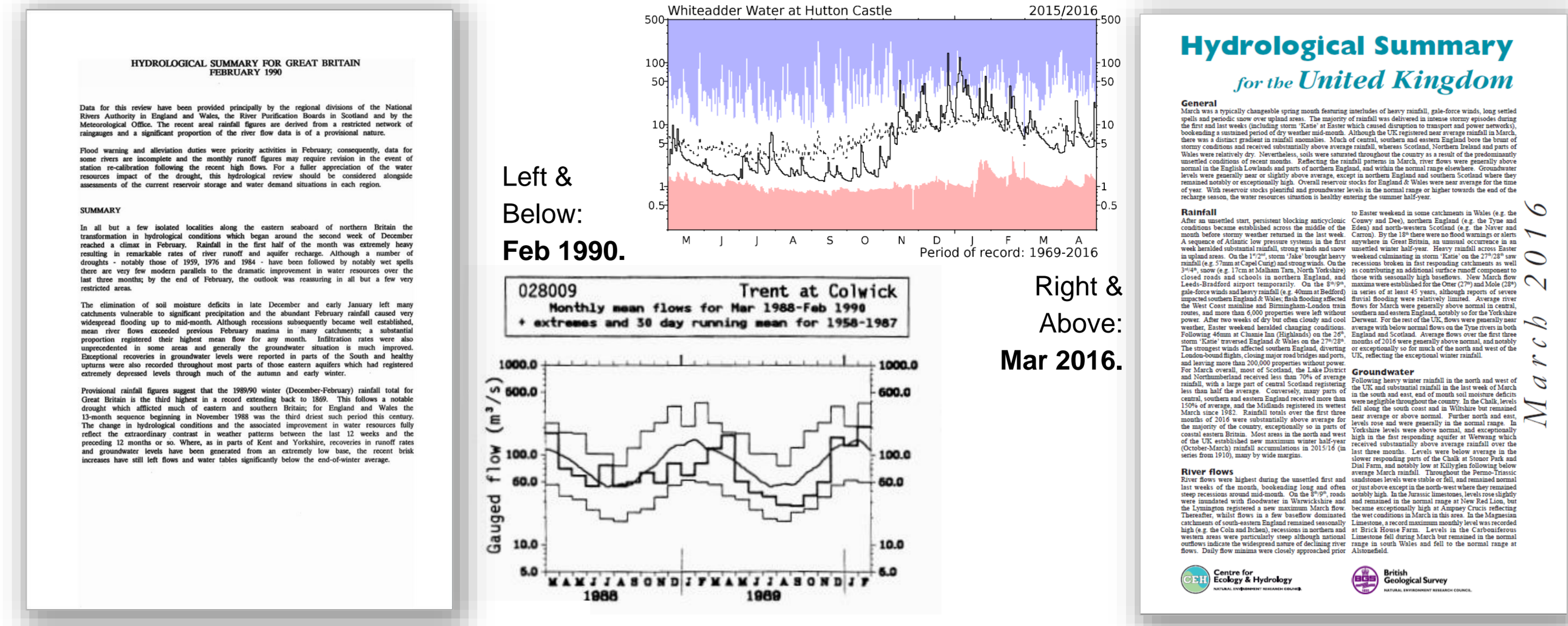


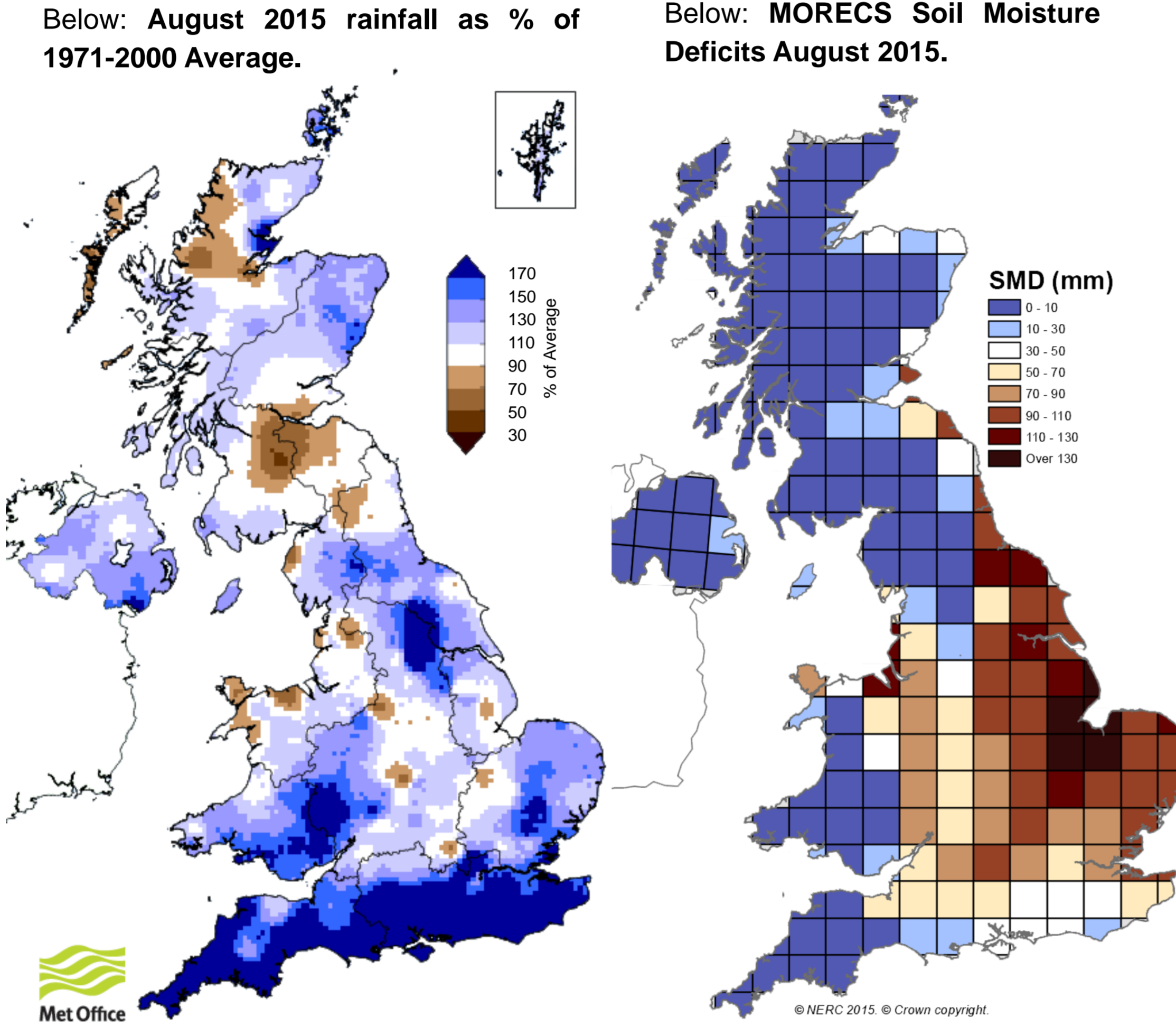
The Hydrological Summary for the UK National Hydrological Monitoring Programme

Reporting of UK hydrological conditions is of paramount importance during extreme flood and drought episodes¹. The Hydrological Summary provides an authoritative and informative commentary on the severity and spatial extent of hydrological extremes and the current water resource situation. Starting in 1988, this monthly report describes the preceding month's conditions, and placing them in a long-term context. It's audience includes academia, consultants, regulators, the water industry, policy makers and the media, as well as appealing to wider public interest. The National Hydrological Monitoring Programme has a particular obligation to document contemporary hydrological conditions through the Summary and in occasional reports on events of major significance.



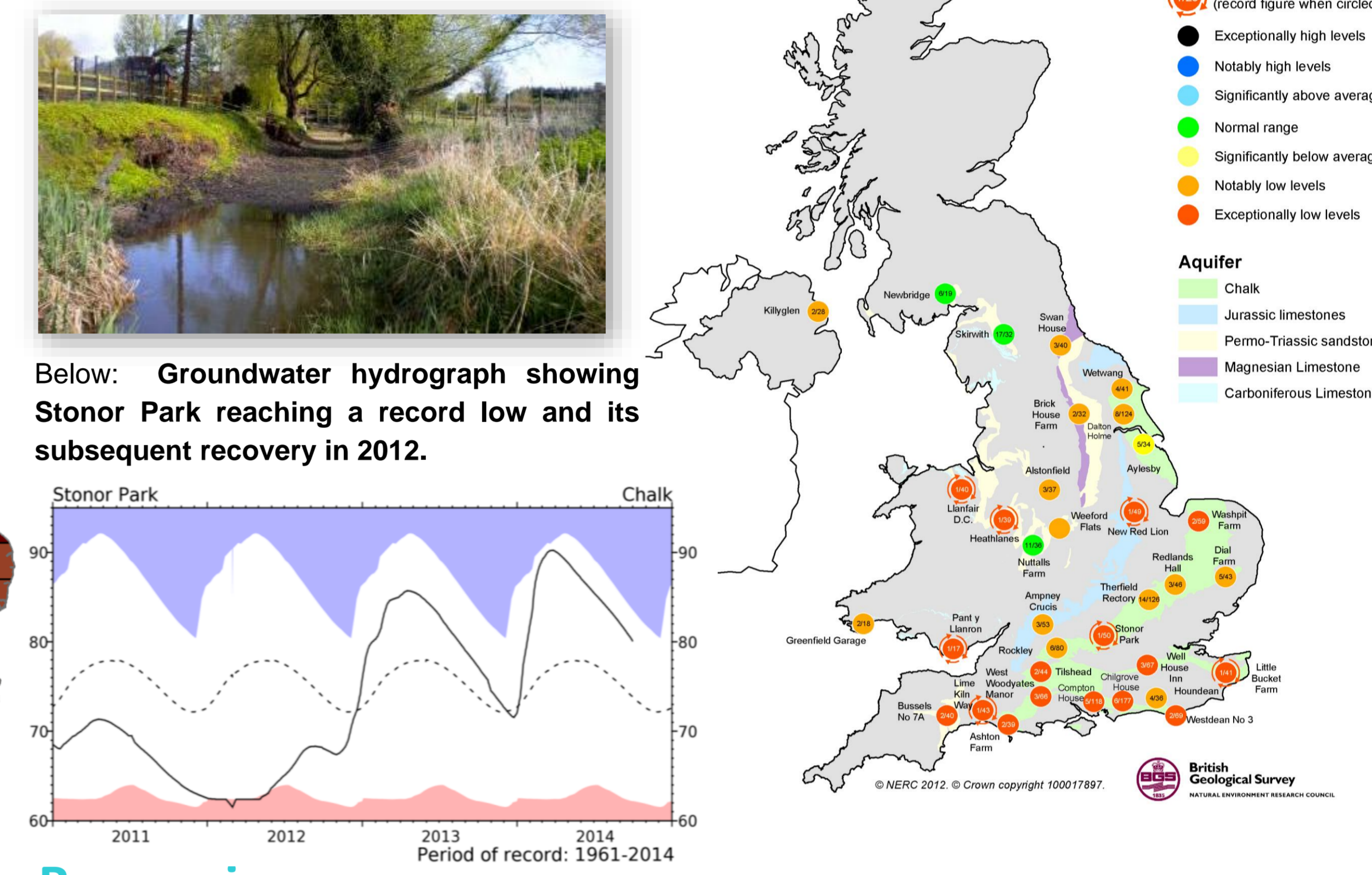
Rainfall and Soil Moisture

- Rainfall data are provided by the Met Office National Climate Information Centre (NCIC).
- Based on 5km resolution gridded data² from rain gauges and extends back to 1910.
- Rainfall accumulations are derived from the monthly areal series with return periods calculated to place events in long-term context.
- Soil moisture deficits from the Met Office Rainfall and Evaporation Calculation System (MORECS) are averaged over 40 x 40km grid squares, in records extending back to 1961³.



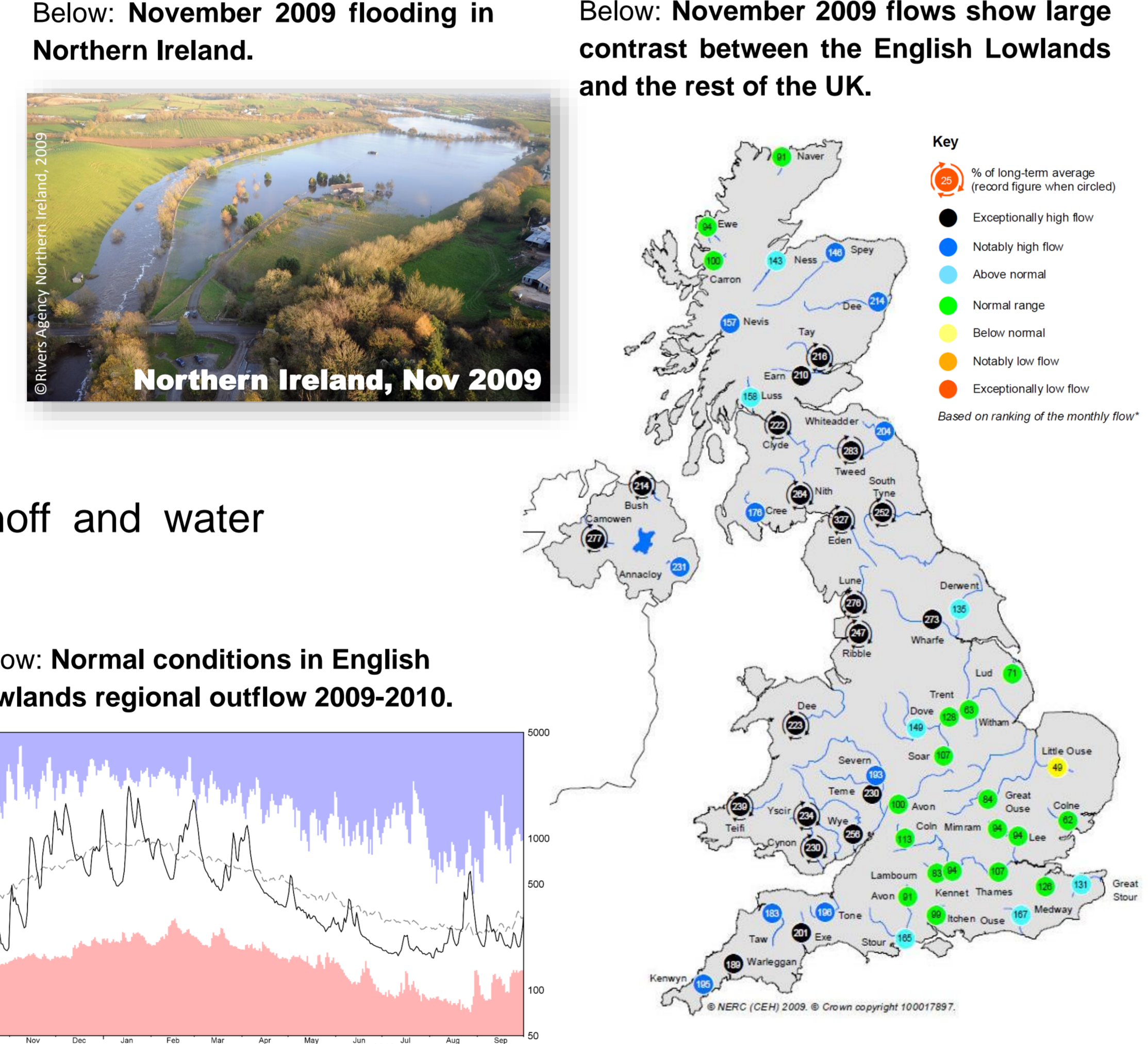
Groundwater

- Collation of data from 33 boreholes, and all groundwater commentaries, are compiled and composed by the British Geological Survey.



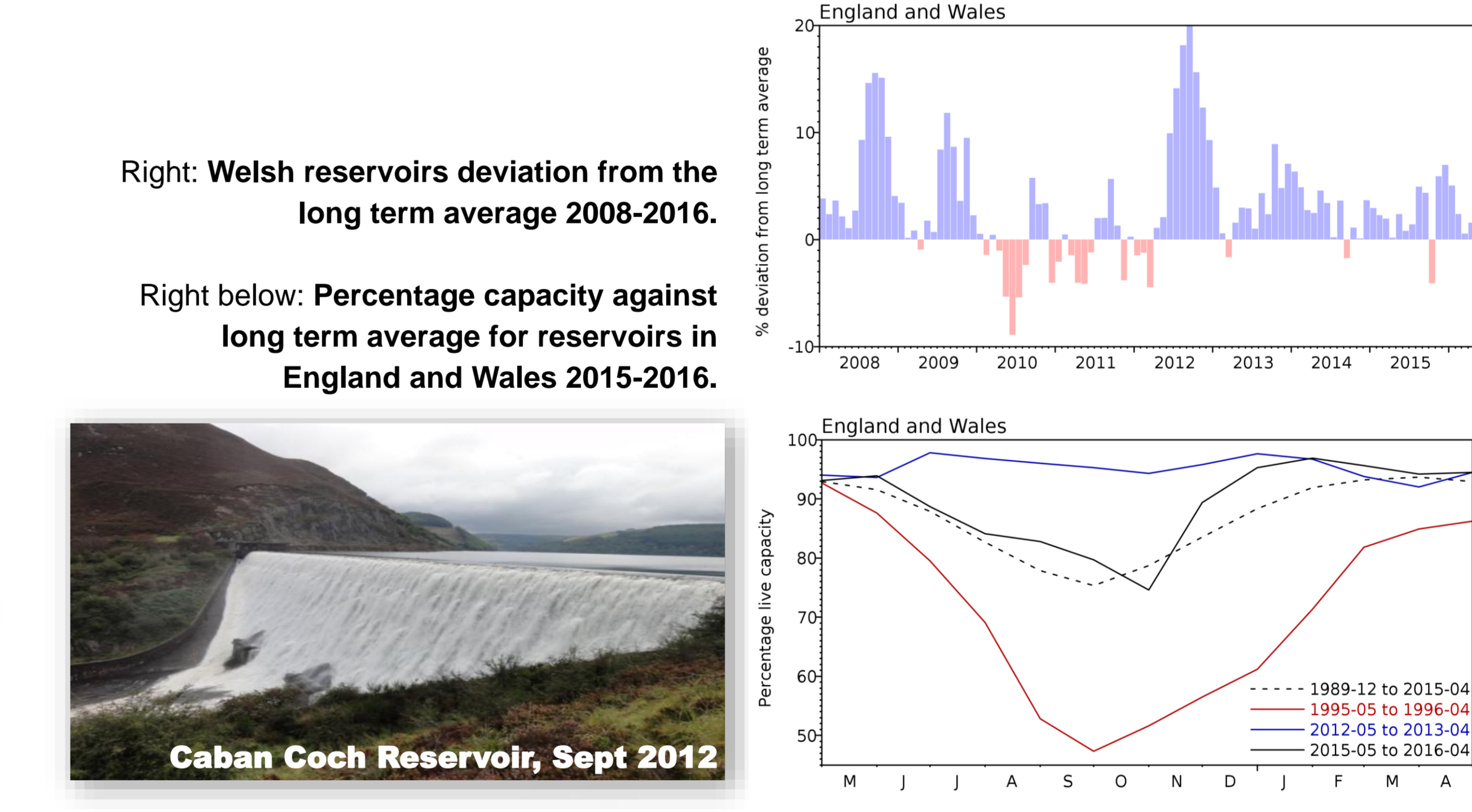
River Flow

- Flows from 105 rivers are used to produce, hydrographs, monthly and accumulated 'spot-maps'.
- Analysis determines if any maximum or minimum records have been registered.
- Flows are combined to produce national and regional outflows, to help characterise contemporary runoff and water resource variability⁴.



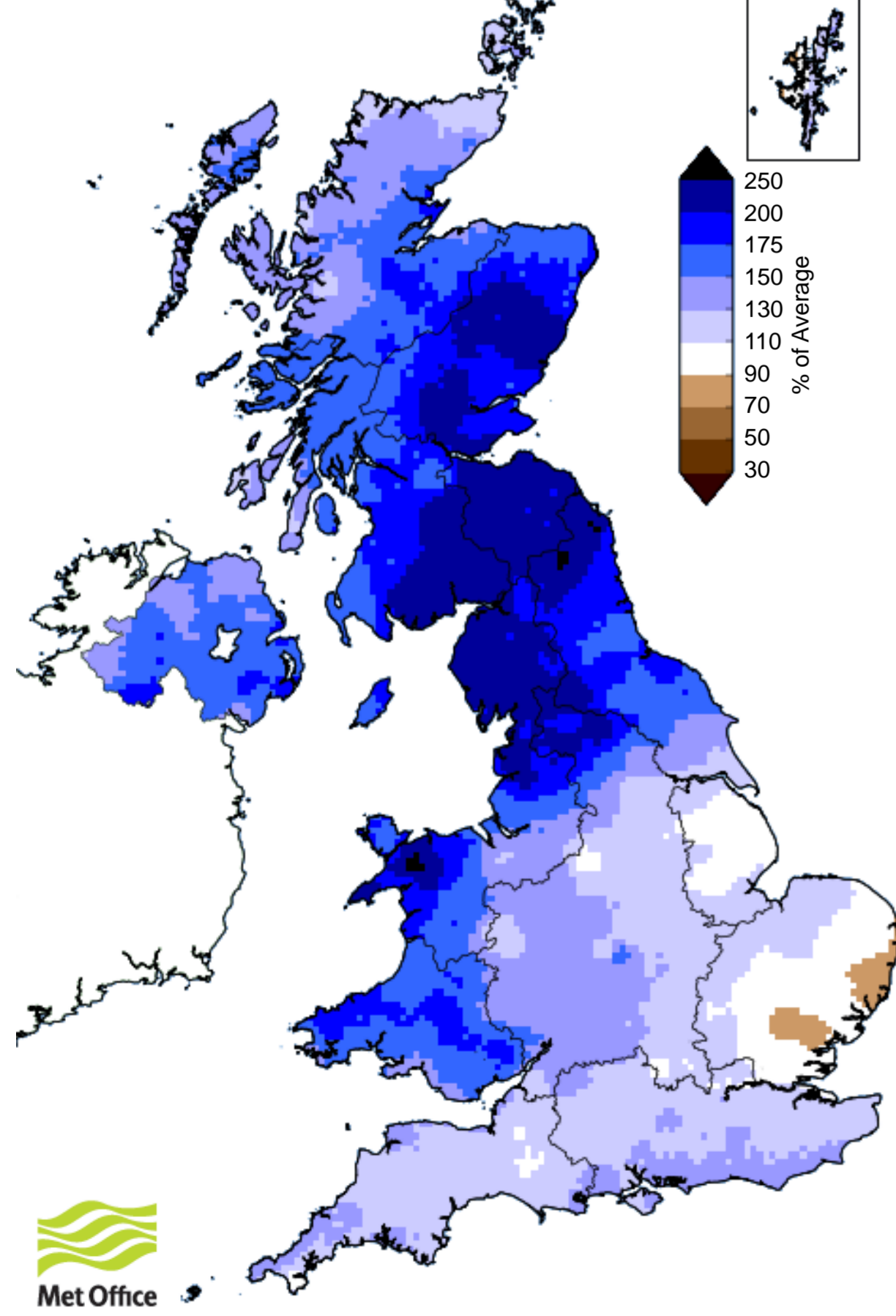
Reservoirs

- Reservoir stocks are provided by the water companies and the EA.
- The percentage capacity of reservoir stocks are compared to long term averages, and is displayed for regions and individual reservoirs.
- Deviation from the long term average highlights current water resources situation.

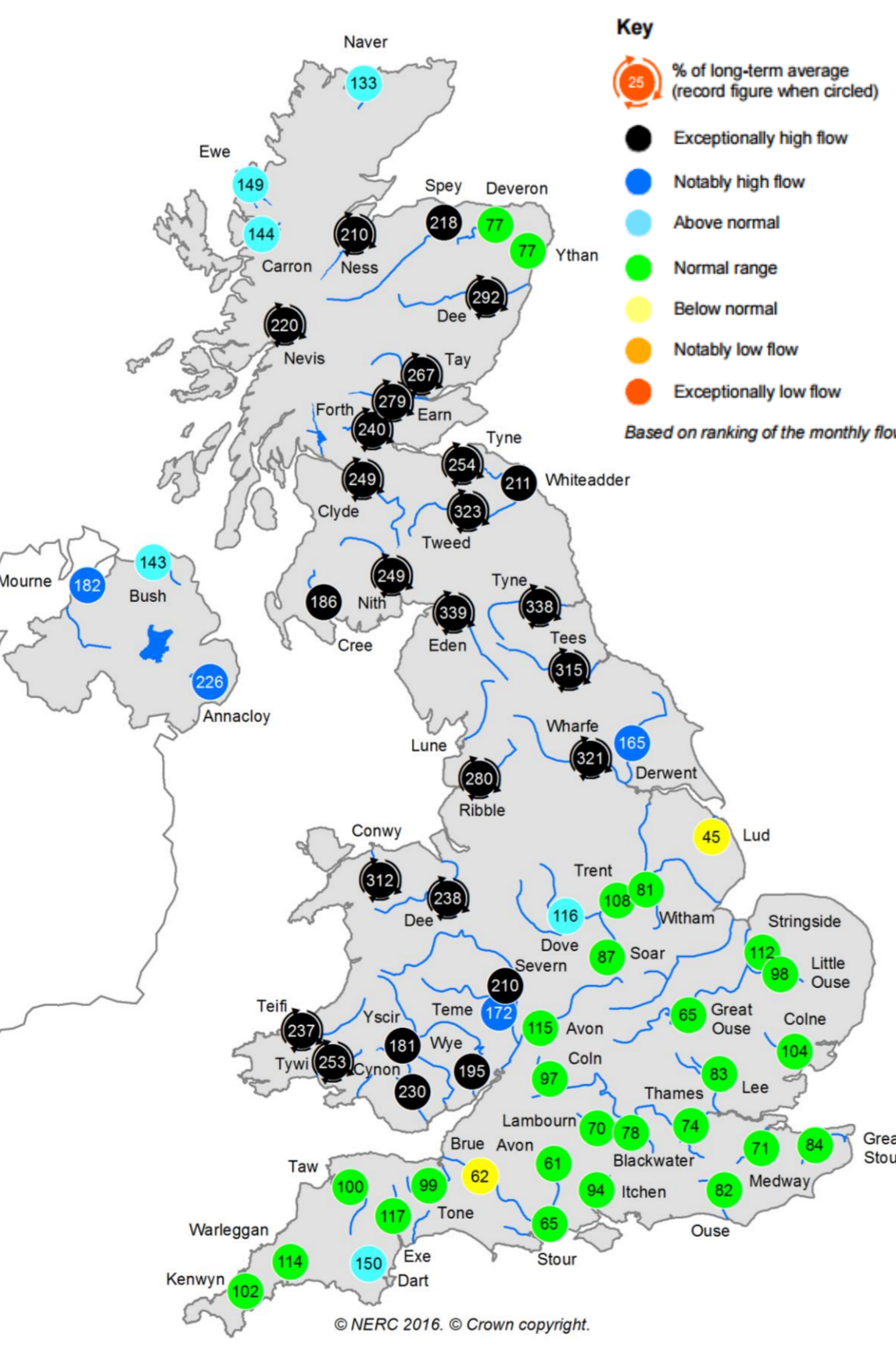


Case Study: The Winter Floods 2015-2016

Below: December 2015 to February 2016 Rainfall as % of 1971-2000 Average.



Below: December 2015 River Flows showing exceptionally high flows in Wales, northern England and Scotland.

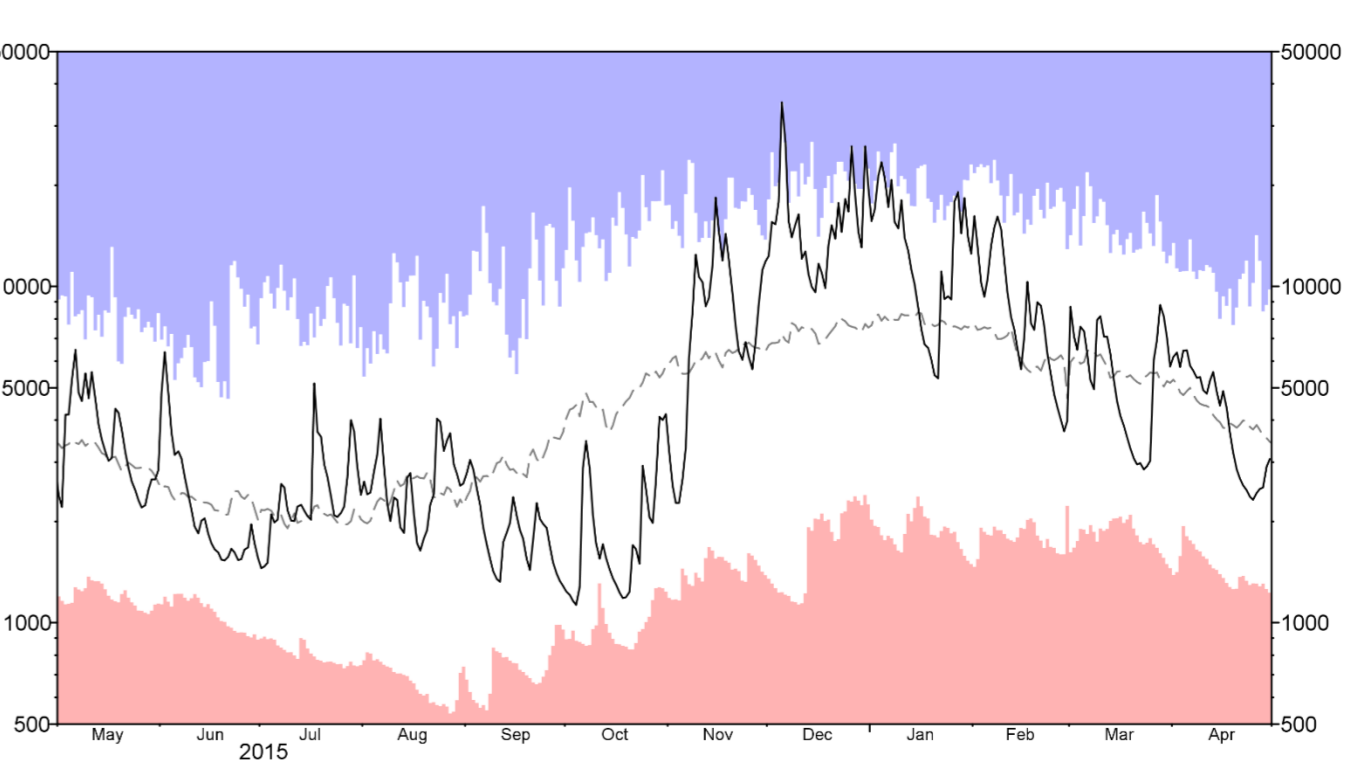


- The three largest peak flows ever recorded in UK (ex. Scotland) occurred on Eden, Lune and Tyne: ~1,700cumecs – enough to fill the Royal Albert Hall in one minute!
- Provisionally approximate return period was 1 in 300 years on the Lune.
- New 24-hour UK rainfall record (341.4mm at Honister Pass, Cumbria).
- Information in the Hydrological Summary was picked up by hundreds of media outlets and used in reporting on the events, including, BBC News, The Independent, The Guardian, Radio 4, BuzzFeed.



BuzzFeedNEWS

- GB outflow highlights the widespread nature of the December 2015 event as well as the magnitude.



Thank you to our data providers for their continued support of the Hydrological Summary

...and the water companies.

