

Hydrological Outlook UK

Period: From July 2016

Issued on 12.07.2016 using data to the end of June 2016

SUMMARY

The outlook for July is for groundwater levels to be normal to above normal throughout the UK with the exception of the English-Scottish borders where levels are expected to be above normal. In July river flows are likely to be in the normal range in much of the UK, the exceptions being northeast Scotland and southeastern parts of the UK where normal to above normal flows are most likely. In the next three months river flows and groundwater levels are likely to follow the same broad pattern but with normal flows becoming more probable.

Rainfall:

Rainfall for June was above average for the UK as a whole (147% of the 1971-2000 average). However, rainfall was average, or below, in many places including western and southern Scotland and northeast England

The rainfall outlook for July (released by the Met Office on 24th June 2016) is that above-average precipitation is considered slightly more probable than below-average. This tendency is related to the slightly higher-than-usual chances of experiencing winds from the Atlantic. For July-August-September, the forecast for UK precipitation suggests that the chances of above- and below-average rainfall are fairly balanced. The probability that UK precipitation for July-August-September will fall into the driest of our five categories is around 20% and the probability that it will fall into the wettest of our five categories is around 20% (the 1981-2010 probability for each of these categories is 20%).

River flows:

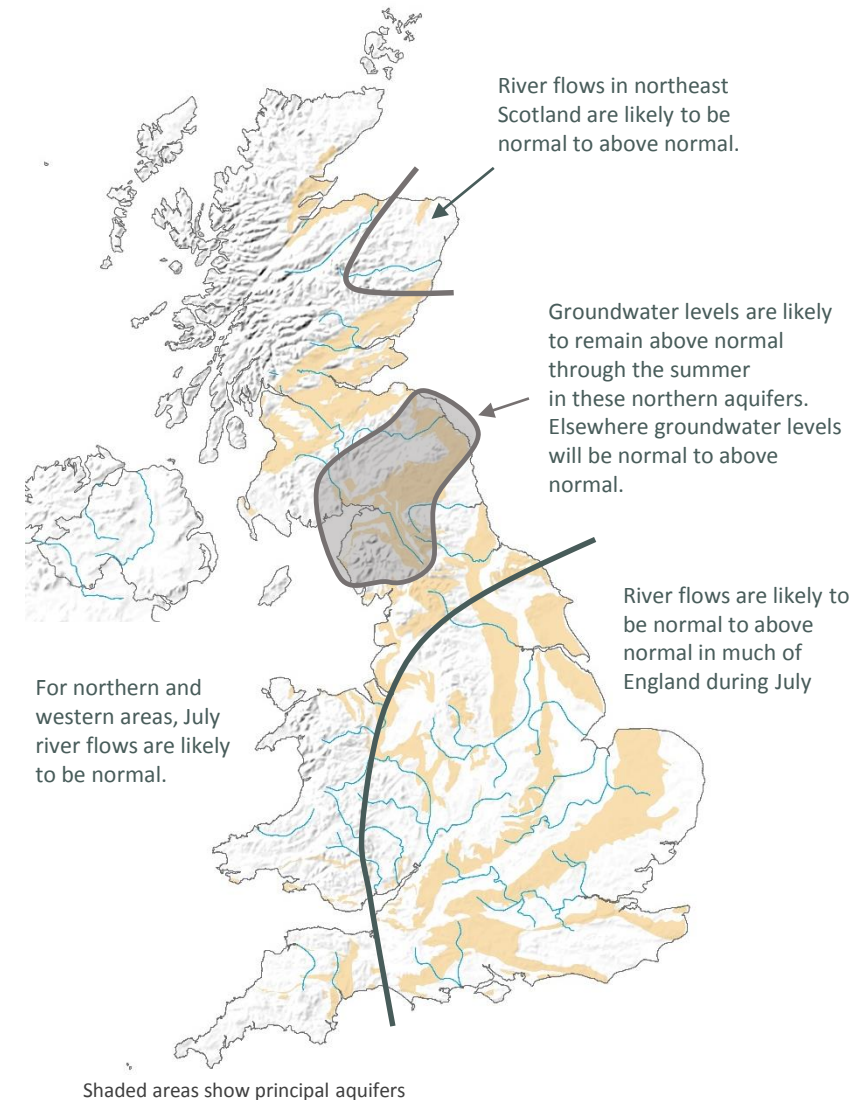
River flows in June showed marked geographical contrasts. There were normal to above normal flows in most of England and Wales, and below normal flows in northeast England and western Scotland. River flows in northeast Scotland were above normal.

In July river flows are likely to be normal to above normal in northeast Scotland and southeastern parts of the UK. Elsewhere river flows are likely to be normal. In the longer term normal flows are most likely across the UK, although above normal flows remain possible in southeastern parts of the UK.

Groundwater:

As the summer groundwater recession continues, groundwater levels in most aquifers are currently at normal or above normal levels, and with the notably high levels in the northern Permo-Triassic sandstones persisting.

Under the highest rainfall forecast, levels at some sites on the Chalk of the South Downs and Wessex may become notably or exceptionally high for the season. The outlook is stable with the 3 month outlook very similar to the current 1 month outlook.



The Hydrological Outlook UK provides an outlook for the water situation for the UK over the next three months and beyond. For guidance on how to interpret the outlook, a wider range of information, and a full description of underpinning methods, please visit the website: www.hydotuk.net

Hydrological Outlook UK

About the Hydrological Outlook:

This document presents an outlook for the UK water situation for the next 1 – 3 months and beyond, using observational datasets, meteorological forecasts and a suite of hydrological modelling tools. The outlook is produced in a collaboration between the Centre for Ecology and Hydrology (CEH), British Geological Survey (BGS), the Met Office, the Environment Agency (EA), Natural Resources Wales (NRW), the Scottish Environment Protection Agency (SEPA), and the Northern Ireland Rivers Agency (RA).

Data and Models:

The Hydrological Outlook depends on the active cooperation of many data suppliers. This cooperation is gratefully acknowledged. Historic river flow and groundwater data are sourced from the UK National River Flow Archive and the National Groundwater Level Archive. Contemporary data are provided by the EA, SEPA, NRW and RA. These data are used to initialise hydrological models, and to provide outlook information based on statistical analysis of historical analogues.

Climate forecasts are produced by the Met Office. Hydrological modelling is undertaken by CEH using the Grid-to-Grid, PDM and CLASSIC hydrological models and by the EA using CATCHMOD. Hydrogeological modelling uses the R-groundwater model run by BGS and CATCHMOD run by the EA. Supporting documentation is available from the Outlooks website: <http://www.hydoutuk.net/methods>

Presentation:

The language used in the summary presented overleaf generally places flows and groundwater levels into just three classes, i.e. below normal, normal, and above normal. However, the underpinning methods use as many as seven classes as defined in the graphic to the right, i.e. the summary uses a simpler classification than some of the methods. On those occasions when it is appropriate to provide greater discrimination at the extremes the terminology and definitions of the seven class scheme will be adopted.

	Percentile range of historic values for relevant month
Exceptionally high flow	> 95
Notably high flow	87-95
Above normal	72-87
Normal range	28-72
Below normal	13-28
Notably low flow	5-13
Exceptionally low flow	< 5

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Further information:

For more detailed information about the Hydrological Outlook, and the derivation of the maps, plots and interpretation provided in this outlook, please visit the Hydrological Outlook UK website.

The website features a host of other background information, including a wider range of sources of information which are used in the preparation of this Outlook.

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Reference for the Hydrological Outlook:

Hydrological Outlook UK, 2016, July, Centre for Ecology and Hydrology, Oxfordshire UK, Online, <http://www.hydoutuk.net/latest-outlook/>

Other Sources of Information:

The Hydrological Outlook should be used alongside other sources of up-to-date information on the current water resources status and flood risk.

Hydrological Summary for the UK: provides summary of current water resources status for the UK: http://www.ceh.ac.uk/data/nrfa/nhmp/monthly_hs.html

Environment Agency Water Situation Reports: provides summary of water resources status on a monthly and weekly basis for England: <https://www.gov.uk/government/collections/water-situation-reports-for-england>

Flood warnings are continually updated, and should be consulted for an up-to-date and localised assessment of flood risk:

Environment Agency: <https://flood-warning-information.service.gov.uk/map>
Scottish Environment Protection Agency: <http://www.sepa.org.uk/flooding.aspx>

UK Met Office forecasts for the UK: www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast