

SUMMARY The outlook for June is for below normal river flows in the north and west, and normal to below normal river flows elsewhere. For groundwater, normal to above normal levels are expected, with above normal levels most likely in the far south. For summer, the outlook is for normal to below normal flows across the UK, and normal to above normal groundwater levels. In parts of the far south, above normal groundwater levels and flows are likely to persist through the summer.

Rainfall:

The May rainfall was above average in some parts of the south and east, but overall it was a very dry month for most of the UK (with around half the average rainfall for the UK as a whole) and notably dry in the north and west.

The forecast (issued by the Met Office on 29.05.2023) shows no strong signal for wet or dry conditions. Chance of each are similar to normal in both June and summer (June – August). Over both these periods the forecast shows increased likelihood of above-average temperatures, with increased chance of localised thundery downpours. While these are possible anywhere they are likely to be more prevalent in southern Britain.

River flows:

River flows in May were above normal across much of southern England, contrasting with below normal (and notably or exceptionally low in many catchments) flows in Scotland and parts of western England and Wales.

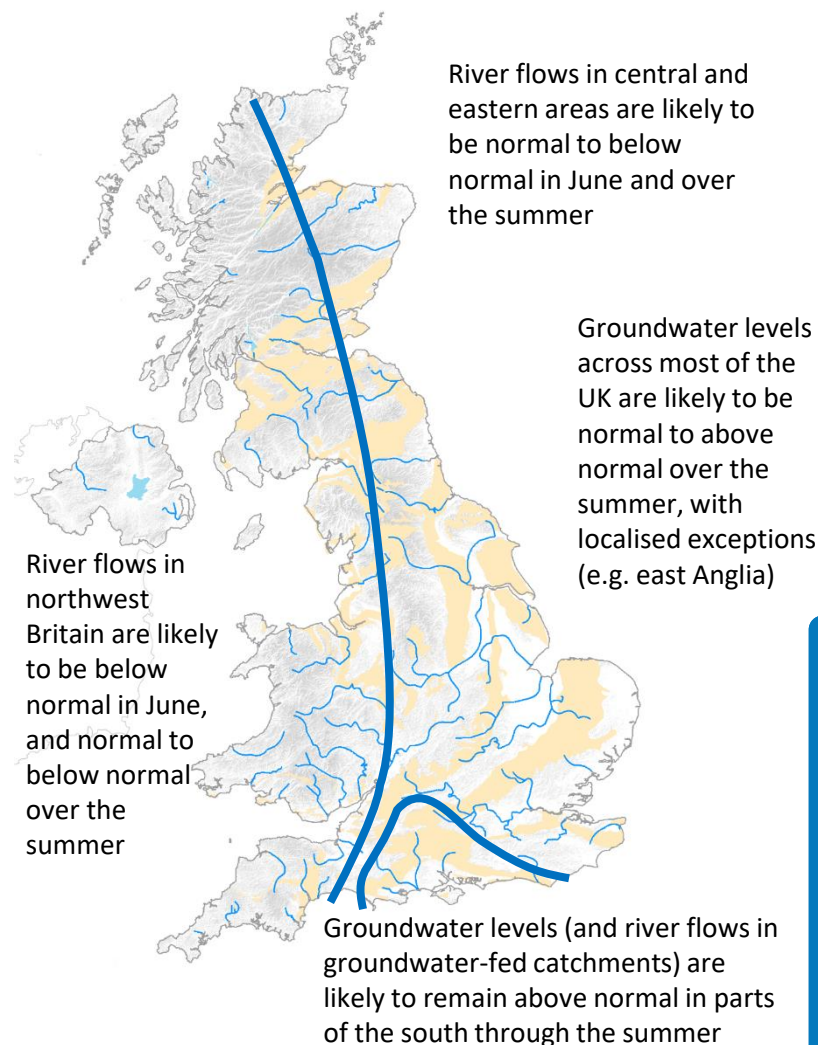
The outlook for June is for below normal flows across the north and west, with notably or exceptionally low flows likely to persist in some catchments, particularly in western Scotland. Elsewhere, normal to below normal flows are most likely except in groundwater-fed catchments in the far south where above normal levels will persist. The outlook for summer is for above normal flows in the far south and normal to below normal flows elsewhere

Groundwater:

Across most aquifers, groundwater levels in May were normal to above normal, with the exception of some below normal levels in Scotland and east Anglia. In central southern England, levels were notably high and exceptionally so in some boreholes.

The outlook for June is for a similar picture, with normal to above normal levels across much of the country, with some localised exceptions of below normal levels in central and eastern England and parts of Wales. Above normal groundwater levels are likely to persist in southern England, with notably or exceptionally high levels to be maintained in some localities. The outlook for the summer is similar.

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.hyoutuk.net



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 UK Centre for Ecology and Hydrology (UKCEH), British Geological Survey (BGS), the Met Office, the Environment Agency (EA), Natural Resources Wales (NRW), the Scottish Environment Protection Agency (SEPA), and for Northern Ireland, the Department for Infrastructure – Rivers (DfIR).

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 DfIR. 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 UKCEH 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: <https://www.hydoutuk.net/about/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.

Contact:

Hydrological Outlooks UK, UK Centre for Ecology & Hydrology, Wallingford, Oxfordshire, OX10 8BB
t: 01491 692371 e: enquiries@hydoutuk.net

Reference for the Hydrological Outlook:

Hydrological Outlook UK, 2023, June, UK Centre for Ecology and Hydrology, Oxfordshire UK, Online, <https://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.

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>

Natural Resources Wales: <https://flood-warning.naturalresources.wales/>

Scottish Environment Protection Agency: <https://www.sepa.org.uk/flooding.aspx>

Hydrological Summary for the UK: provides summary of current water resources status for the UK: <https://nfa.ceh.ac.uk/monthly-hydrological-summary-uk>

UK Met Office forecasts for the UK: <https://www.metoffice.gov.uk/#?tab=regionalForecast>

UK Water Resources Portal: monitor the UK hydrological situation in near real-time including rainfall, river flow, groundwater and soil moisture from COSMOS-UK: <https://eip.ceh.ac.uk/hydrology/water-resources/>