

SUMMARY

The outlook for August and for the August—October period is for river flows to be below normal, exceptionally so in central and southern England. In northern and western areas of the UK, flows are likely to be normal to below normal. Groundwater levels in August are likely to be normal in central and northern UK, below normal elsewhere, and notably or exceptionally so in southern England and south Wales. Over the three month period (August—October), levels will follow a similar pattern, however there is uncertainty regarding the timing of the onset of the recharge season in autumn.

Rainfall:

July received below average rainfall for almost all of the UK, with the exception of the far north of Scotland. Areas of southern and eastern England saw less than 10% of the average July rainfall, and for England as a whole it was the driest since 1935.

The temperature outlook for August and August—October (issued by the Met Office on 01.08.2022) shows an increased likelihood of warmer than normal conditions, with an increased likelihood of heatwaves. The precipitation outlook for the same periods suggest that whilst average rainfall is forecasted, it is likely there will be a contrast between a wetter north-west and a drier south-east of the country.

River flows:

River flows in July were below normal in most of the UK, exceptionally so in central and southern England. In north-west Britain, flows were mostly in the normal range, with some above normal flows in the far north of Scotland.

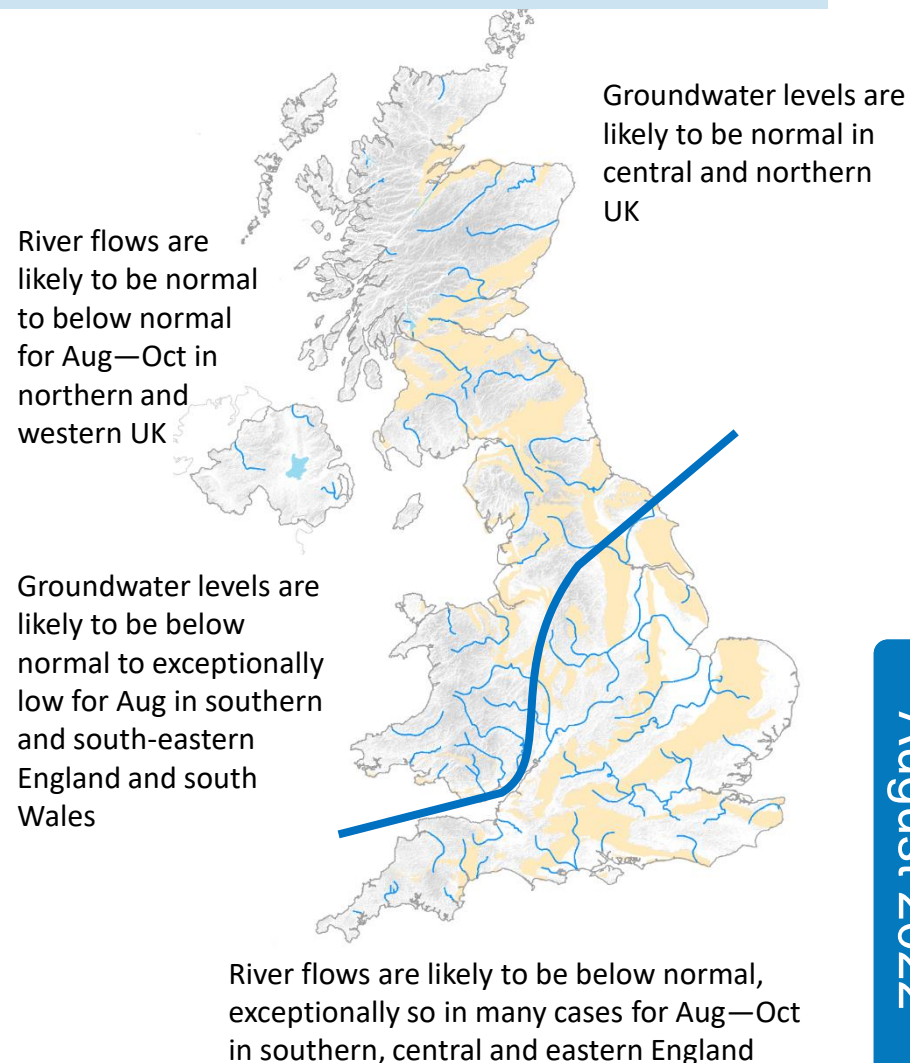
River flows in August are likely to remain below normal for much of the UK, exceptionally so in central, southern and eastern England. Normal to below normal flows are expected in Scotland, Wales and north-west England. These patterns are broadly similar for the August—October period, albeit with a potential return to more normal conditions in north-west UK. It is likely flows will remain exceptionally low in central, southern and eastern England over the three month period.

Groundwater:

Groundwater levels in July were below normal across most of the country, with exceptionally low levels in southern England and south Wales.

In August, groundwater levels are likely to be normal in central and northern UK, apart from the Chalk of Yorkshire where levels are likely to be below normal. Levels in southern England and south Wales will be below normal and notably or exceptionally low in the southern Chalk and Carboniferous Limestone in these areas. The three-month outlook is similar, however there is significant uncertainty in the timing of the onset of recharge in autumn.

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.hydoutuk.net



Shaded areas show principal aquifers

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.

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Reference for the Hydrological Outlook:

Hydrological Outlook UK, 2021, August, 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/>