

SUMMARY

The outlook for November is for normal to below normal river flows in south-east England; flows elsewhere are most likely to be within the normal range. November groundwater levels are likely to be below normal in southern and eastern England. Over the three-month timeframe, the outlook for river flows is similar to the one-month outlook, but normal to below normal levels are likely for aquifers in the south-east.

Rainfall:

In October, above average rainfall occurred across most of the UK, exceptionally so in parts of Northern Ireland. Below average rainfall was limited to northern Scotland and parts of south-west and eastern England.

The rainfall outlook (issued by the Met Office on 31.10.2022) for November suggests an equal likelihood of dry or wet weather. For the November-January timeframe, there is a slightly increased likelihood of dry weather.

River flows:

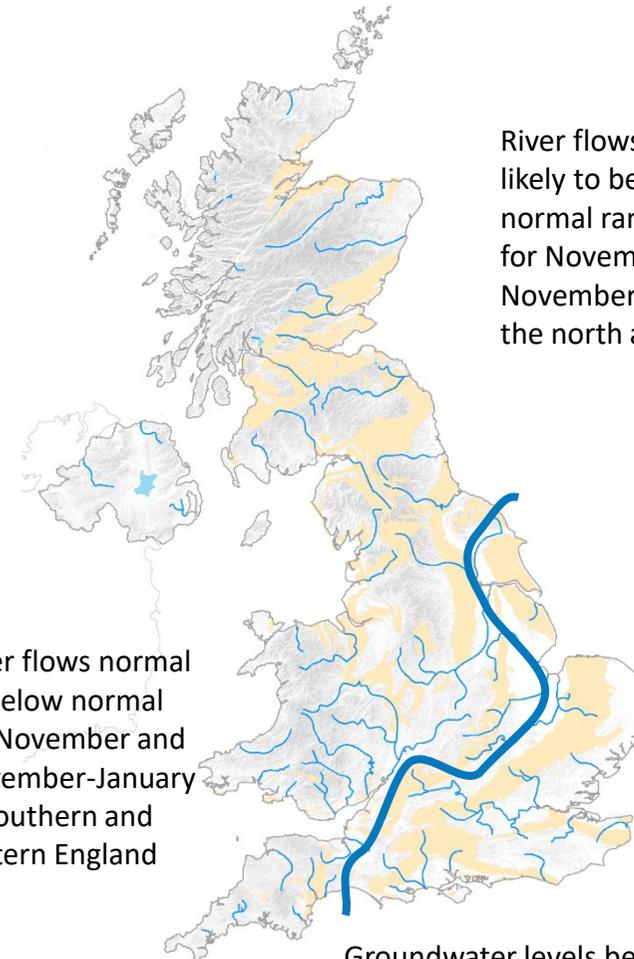
In October, river flows were normal to below normal across most of England and Wales, though notably or exceptionally low only in a few catchments. Flows were above normal in parts of western Scotland and north-west England.

The one-month outlook suggests that normal to below normal river flows are likely in catchments of the English Lowlands. The outlook for the November-January timeframe is similar to the one-month outlook. Over both timeframes, there is confidence in the continuation of low flows in some slowly-responding catchments in the south-east.

Groundwater:

Groundwater levels in October were below normal across most of southern and eastern England. Levels were notably or exceptionally low in the southern Chalk.

The one-month outlook is for below normal levels for the Chalk aquifers of south-eastern England, with more variation further north and west. The three-month outlook suggests a return to levels within the normal range for the southern Chalk, although below normal levels are likely for the slower-responding eastern Chalk.



River flows most likely to be within the normal range for November and November-January in the north and west

River flows normal to below normal for November and November-January in southern and eastern England

Groundwater levels below normal for November in southern and eastern areas

Shaded areas show principal aquifers

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

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, 2022, November, 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/>