

SUMMARY The Outlook for February is for normal to above normal river flows in northwest Britain, and normal to below normal flows elsewhere. Groundwater levels are likely to be normal to above normal in most aquifers, and normal to below normal in east Anglia. The outlook for February to April is for normal to below normal flows and groundwater levels across most of the UK, but with normal to above normal groundwater levels persisting in some parts of the southeast.

Rainfall:

In January, significantly above average precipitation was received across much of western Britain, and in the far south of England. In contrast, much of eastern Britain, central England and parts of northern Scotland were drier than average.

The forecast (issued by the Met Office on 30.01.2023) shows a slightly increased likelihood of above normal precipitation for both February and the February–April period. This is more likely in northwestern areas, with rainfall amounts across southern parts of the UK being less certain. Shorter-term forecasts show the dry conditions in southern England seen so far this month are likely to continue for a substantial part of February.

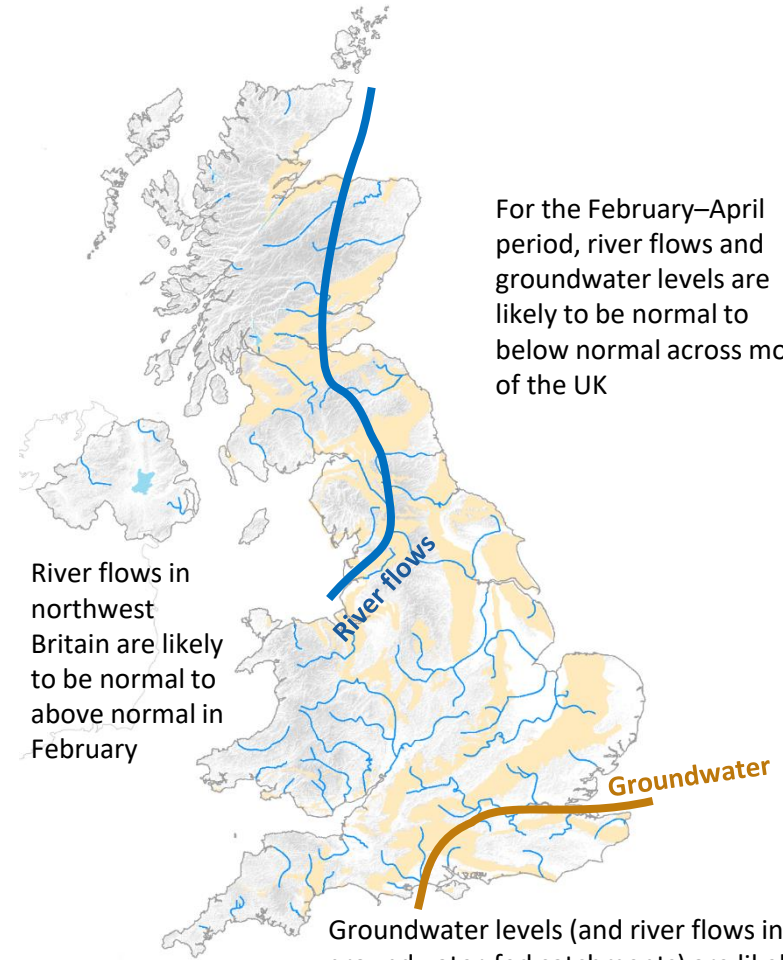
River flows:

River flows in January were above normal for much of the UK, significantly so in many western catchments, and in the normal range in parts of eastern England and the far north of Scotland. The outlook for February is for normal to below normal flows across much of the UK, but with normal to above normal flows in northwest Britain, and in parts of the far southeast of England (mainly in groundwater-fed catchments). Below normal flows are more likely in localised parts of east Anglia. Over the February–April timeframe, normal to below normal flows are most likely and there is a greater tendency for flows to be below normal across wider areas.

Groundwater:

Across most aquifers, groundwater levels in January were predominantly in the normal range, and locally above normal – in the southern Chalk, levels were notably high. Levels were normal to below normal in the Chalk of the Chilterns and East Anglia.

The outlook for February is for normal levels to predominate in most aquifers, with normal to above normal levels in the southern Chalk, and normal to below normal levels in eastern England. Over the three month timeframe, normal to below normal levels are the most likely outcome, with below normal levels most likely in east Anglia. Normal to above normal levels may persist in the southern Chalk.



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, 2023, February, 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/>