UK Hydrological Outlook

Delivered in partnership by: UK Centre for Ecology & Hydrology

Period: From March 2025

Issued on 13.03.2025 using data to the end of February 2025

SUMMARY The outlook for March is for above normal flows in southeast England, which is likely to persist over the March-May period. In the northwest, normal to above normal flows are likely in March and for March – May. River flows in northeast Britain are likely to be below normal in March and normal to below normal for March-May. Normal to above normal groundwater levels are likely to persist through the March-May period but parts of south Wales and Scotland could see below normal levels in March.

Rainfall:

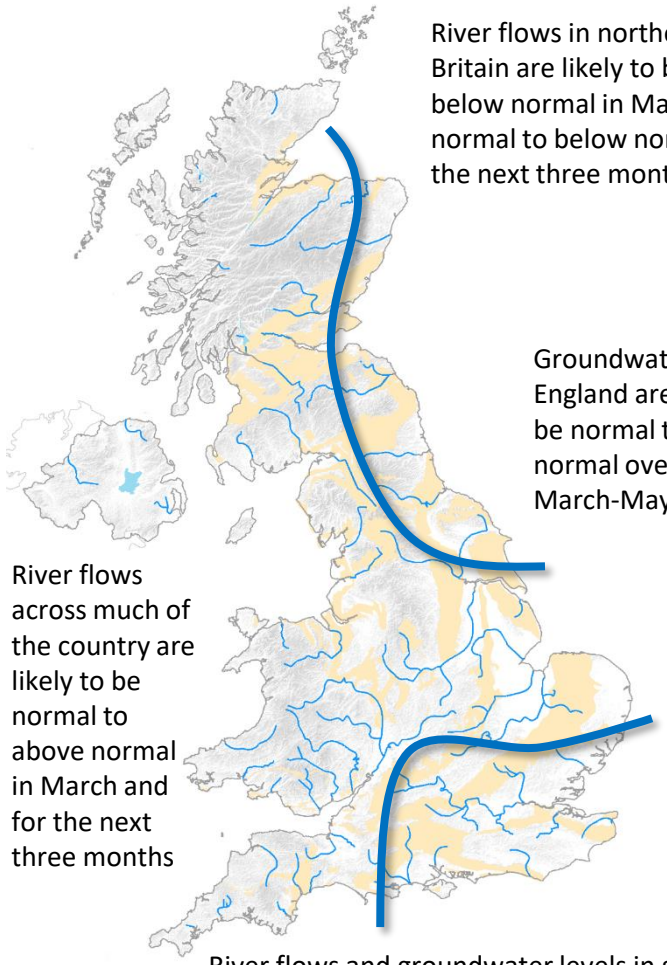
February rainfall for the UK was below average. Some areas of northeast Scotland and northwest England recorded less than half of the February average. In southeast and southwest England, rainfall was average or above average. The forecast for March (issued by the Met Office on 24.02.2025) indicates an increased chance of wet conditions for northern and western parts of the UK. Unsettled conditions are possible in late March, but confidence remains low. The March-May forecast suggests a slightly higher than normal chance of being drier than average, particularly across southern England.

River flows:

River flows in February were below normal in northern Britain, notably or exceptionally so in some cases. Flows for England were in the normal range with some notably to exceptionally high flows in groundwater-dominated catchments across southern England. The outlook suggests above normal to high flows in these catchments are likely to persist in March and for the next three months.. Elsewhere, normal to above normal flows for March are likely for the northwest but below normal flows are more likely for northeast Britain. The March-May outlook shows a similar geographical pattern, with mostly normal to above normal flows across the UK but a slightly higher likelihood of below normal river flows in northeast England.

Groundwater:

Groundwater levels in February were above normal across much of the Chalk aquifer of central and southern England, and mostly normal to above normal elsewhere. Notably low levels were registered at some sites in southern Scotland and Northern Ireland. The outlook for March is for above normal to notably high levels to persist in southern England, with the possibility of below normal levels in parts of south Wales and Scotland. Over the three-month period (March-May), groundwater levels are likely to be normal to above normal, particularly in the Chalk aquifer in southern England.



The UK Hydrological Outlook provides an outlook for the water situation for the United Kingdom 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

UK HYDROLOGICAL OUTLOOK

March 2025

UK Centre for Ecology & Hydrology · British Geological Survey · Department for Infrastructure An Roinn Bonneagair www.infrastructure-ni.gov.uk · Environment Agency · Met Office · Cyfoeth Naturiol Cymru Natural Resources Wales · sepa

UK Hydrological Outlook

Delivered in partnership by: UK Centre for Ecology & Hydrology

About the UK 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 & 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 UK 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 and GR6J hydrological models. Hydrogeological modelling uses the AquiMod model run by BGS. Supporting documentation is available from the Outlooks website: https://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

Disclaimer and liability:

The UK Hydrological Outlook partnership aims to ensure that all Content provided is accurate and consistent with its current scientific understanding. However, the science which underlies hydrological and hydrogeological forecasts and climate projections is constantly evolving. Therefore any element of the Content which involves a forecast or a prediction should not be relied upon as though it were a statement of fact. To the fullest extent permitted by applicable law, the UK Hydrological Outlook Partnership excludes all warranties or representations (express or implied) in respect of the Content.

Your use of the Content is entirely at your own risk. We make no warranty, representation or guarantee that the Content is error free or fit for your intended use.

The UK Hydrological Outlook is supported by the Natural Environment Research Council funded NC-UK (NE/Y006208/1) and Hydro-JULES (NE/S017380/1) Programmes.

Copyright:

Further information:

For more detailed information about the UK Hydrological Outlook, and the derivation of the maps, plots and interpretation provided in this outlook, please visit the UK Hydrological Outlook 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. Dynamic access to many of the outputs of the UK Hydrological Portal are available on the UK Hydrological Outlooks Portal.

Contact:

UK Hydrological Outlooks, UK Centre for Ecology & Hydrology, Wallingford, Oxfordshire, OX10 8BB
t: 01491 838800 e: https://hydoutuk.net/contact

Reference for the UK Hydrological Outlook:

UK Hydrological Outlook, 13 March 2025, UK Centre for Ecology & Hydrology, Oxfordshire UK, Online, https://www.hydoutuk.net/latest-outlook/

Other Sources of Information:

The UK 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:
i. Environment Agency: https://flood-warning-information.service.gov.uk/map
ii. Natural Resources Wales: https://flood-warning.naturalresources.wales/
iii. 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://nrfa.ceh.ac.uk/monthly-hydrological-summary-uk

UK Met Office forecasts for the UK: https://www.metoffice.gov.uk/

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/

UK Centre for Ecology & Hydrology · British Geological Survey · Department for Infrastructure An Roinn Bonneagair www.infrastructure-ni.gov.uk · Environment Agency · Met Office · Cyfoeth Naturiol Cymru Natural Resources Wales · sepa