

**SUMMARY** The river flow outlook for January favours normal flows across the UK, although above normal flows may persist in parts of central and southern England that have seen the highest rainfall in recent weeks. In contrast, January – March outlook favours wetter conditions that are more likely to manifest themselves in normal to above normal flows in the north and west, with normal flows most likely elsewhere. While groundwater is a more mixed picture (reflecting both recent rainfall patterns and aquifer properties), normal to above normal levels are expected across the UK over the January – March period.

**Rainfall:**

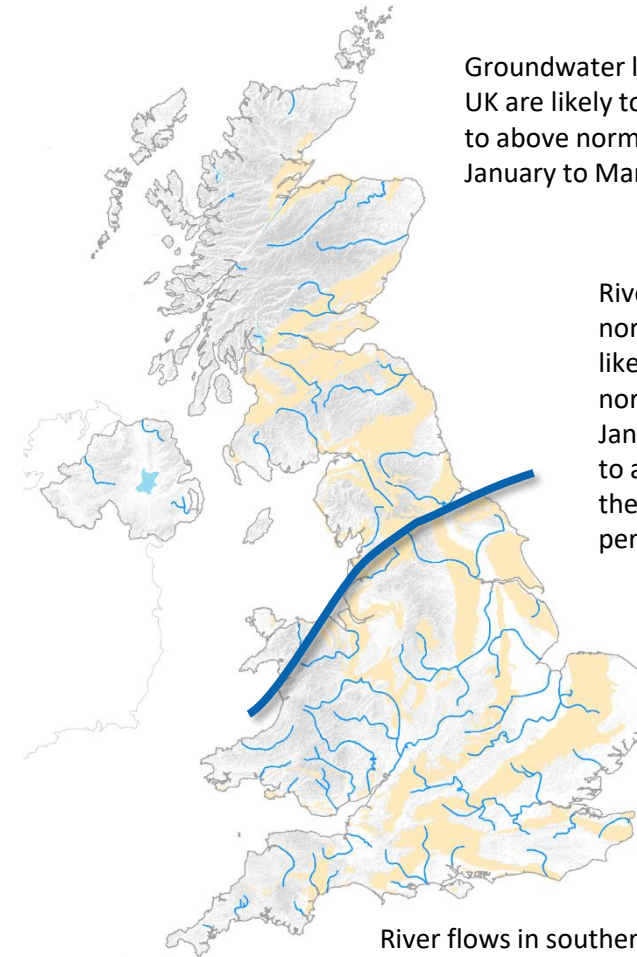
The far north of Scotland saw notably above average December rainfall, whereas southern Scotland and Northern Ireland were relatively dry. Similarly, parts of northern England and north Wales saw above average rainfall, whereas further south it was drier than average, particularly in the far south. The forecast (issued by Met Office on 23.12.2024) indicates the chance of a dry January is slightly higher than normal. In contrast, January-March has a higher-than-normal chance of being wet due to an increased likelihood of westerly winds.

**River flows:**

River flows in December were notably or exceptionally high in the far north of Scotland, with new records for December in some catchments. Elsewhere, river flows were predominantly in the normal range or above normal, with above normal flows most prevalent across central England and north Wales. The outlook for January is for river flows to be in the normal range across most of the UK, but above normal flows may persist in parts of central England and the south, where early January has already seen significant rainfall. The January-March outlook favours flows being normal to above normal in northern Britain and in the normal range further south.

**Groundwater:**

Groundwater levels in December were in the normal range in the far south of England, and normal to above normal in most boreholes in central and northern England. Below normal levels were registered at some sites in central Scotland and Northern Ireland. The January Outlook is for a similar picture of normal to above normal levels predominating across the UK, with above normal levels most likely in central areas (e.g. the Chilterns and Jurassic Limestone), and normal levels further south. Over the January-March period, some areas will see levels receding into the normal range, while others will see increases due to the delayed impact of recent rainfall – hence, the outlook is for normal to above normal levels at the national scale.



Groundwater levels for the UK are likely to be normal to above normal over the January to March period.

River flows in northern Britain are likely to be in the normal range in January, and normal to above normal in the January-March period.

River flows in southern Britain are likely to be in the normal range in January-March, although above normal flows may persist through January in some areas.

Shaded areas show principal aquifers

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.hyoutuk.net](http://www.hyoutuk.net)

## 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 AquilMod 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

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## 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:

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## Reference for the UK Hydrological Outlook:

UK Hydrological Outlook, 10 January 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:

- 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/>

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/>