UK Hydrological Outlook

UKCEH

Period: From September 2026

Issued on 09.09.2026 using data to the end August 2026

SUMMARY

The outlook for September is for below normal flows and groundwater levels across southern Britain and eastern Scotland, with current low flows and levels persisting and a continuation of drought impacts. The three-month outlook indicates below normal flows and levels are likely to continue through autumn in southeast England. For northern and western areas September flows are likely to be in the normal range but normal to above normal for the autumn, while groundwater levels are likely to be normal to below in September before tending towards normal.

Rainfall:

Rainfall in August was below average across much of the UK, except northwest Scotland and localised parts of central and eastern England. It was particularly dry across southern Britain, which saw little appreciable rainfall in the first half of August.

The Met Office seasonal forecast (issued on 1st September 2026) indicates a slightly higher tendency for September to be a wet month overall. The Outlook for autumn (September – November) indicates it is more likely to be wet than dry, with the latter part of the season seeing an increase in the potential for impacts from heavy rainfall. The current strong El Niño increases the confidence in this seasonal forecast relative to a typical autumn.

River flows:

Rivers generally continued to decline through much of August, leading to widespread exceptionally low late-summer flows comparable with, or lower than, notable past droughts. Except for western Scotland, average flows for August were below normal across the UK and often notably or exceptionally low.

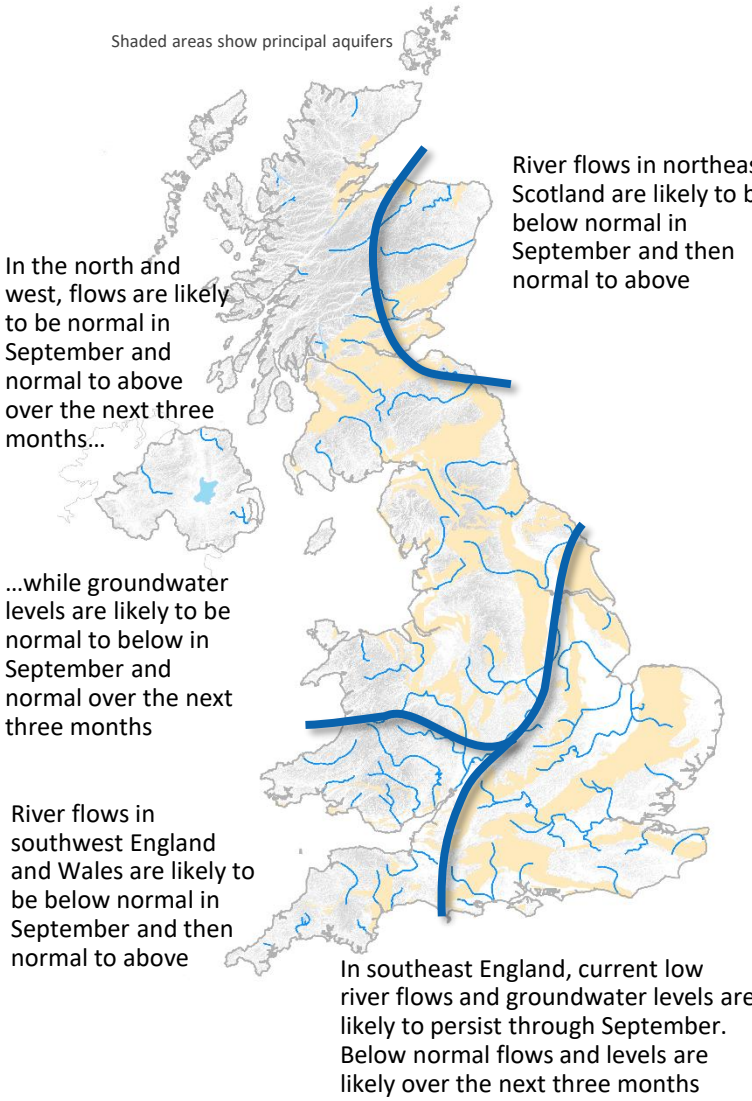
The September Outlook is for below normal flows across southern Britain and northeast Scotland, with current notably or exceptionally low flows likely to persist in many catchments. Elsewhere normal flows are most likely. The outlook for autumn also indicates a broad contrast, with below normal flows in the southeast (with notably or exceptionally low autumn flows possible, especially in groundwater-fed catchments) and normal to above normal flows in northern and western areas. The potential for above normal flows reflects the likelihood of a wetter late autumn in these responsive regions.

Groundwater:

Groundwater levels in August were in the normal range or below normal, with notably low levels in parts of southern England and Wales.

The September outlook indicates a similar picture, with normal to below normal levels predominating and notably or exceptionally low levels continuing in some localities in southern England and Wales. The outlook for autumn indicates a return to normal levels across most aquifer areas, but with below normal (and, locally, notably low) levels persisting in the Chalk of southeast 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

September 2026

UKCEH · 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

UKCEH

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.

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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.

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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:

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, 09 September 2026, 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/

UKCEH

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

August's mean river flows simulated by the Grid-to-Grid hydrological model

CURRENT CONDITIONS

Issue date: 01.09.2026

This map shows the simulated monthly mean flow across Great Britain for last month, ranked in terms of 54 years of historical flow estimates (1963 – 2016).

These flows are produced by the 1km resolution Grid-to-Grid (G2G) hydrological model, which is run up to the end of each calendar month using observed rainfall and MORECS potential evaporation as input.

Note that the G2G model provides estimates of natural flows.

Flow estimate for each river pixel ranked in terms of historic % flow estimates (1963-2016)

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

September 2026

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Current Daily Simulated Subsurface Water Storage Conditions

Based on subsurface water storage estimated for 31 August 2026

Issue date: 01.09.2026

These maps are based on Grid-to-Grid (G2G) hydrological model simulated subsurface water storage (water in the soil and groundwater), expressed as an anomaly from the historical monthly mean. To highlight areas that are particularly wet or dry, the storage anomaly is presented relative to historical extremes. Rainfall in WET areas with high positive relative wetness could result in flooding in the coming days/weeks. Areas of negative relative wetness indicate locations which are particularly DRY, and little or no rain in these areas could potentially lead to (or prolong) a drought. Maps of soil moisture only are available on the next page.

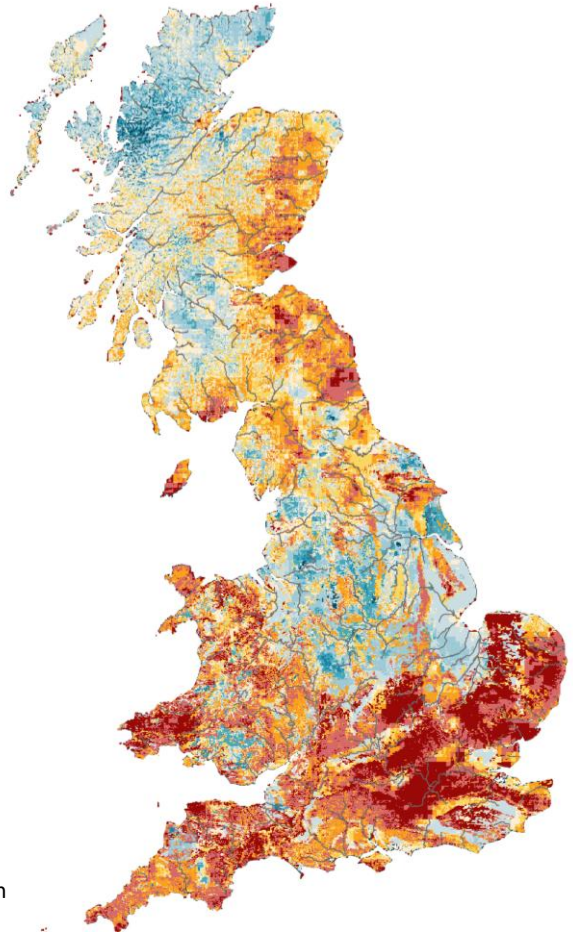
SUMMARY: Subsurface water stores have begun to recover in parts of northern England but remain very dry in much of southern England and Wales. Stores in western Scotland remain slightly wetter than normal for the time of year.

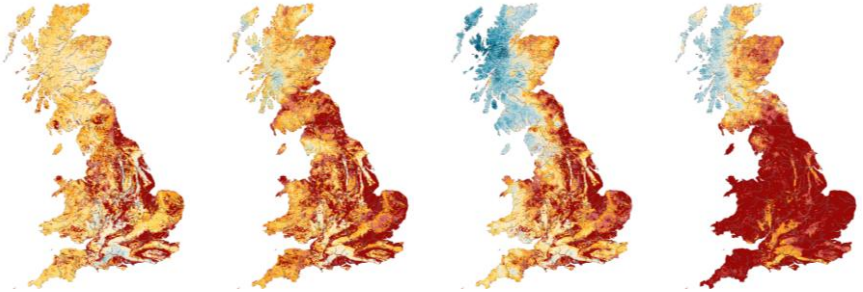
Relative wetness

Water storage anomaly as a % of maximum (positive wetness) or minimum (negative wetness) storage anomaly (zero indicates average value)

High (very wet)	>80
	60-80
Medium wetness	40-60
	20-40
Low wetness	0.01-20
Average conditions	-0.01-0.01
Low dryness	-20--0.01
	-40--20
Medium dryness	-60--40
	-80--60
High (very dry)	<-80
Major rivers	

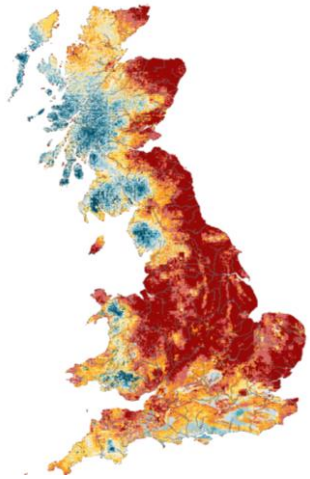
Labels refer to estimated storage on final day of named month



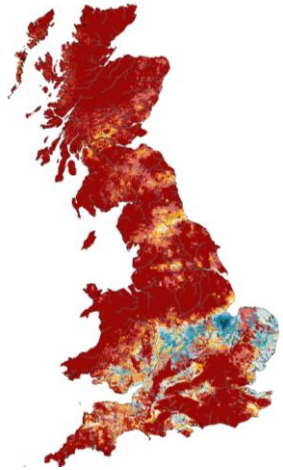


April May June July

August 2025



August 1976*



*Example month displaying extreme negative wetness

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Current Daily Simulated Soil Moisture Conditions

Based on soil moisture estimated for 31 August 2026

Issue date: 01.09.2026

These maps are based on Grid-to-Grid (G2G) hydrological model simulated soil moisture, expressed as an anomaly from the historical monthly mean. To highlight areas that are particularly wet or dry, the soil moisture anomaly is presented relative to historical extremes. These maps are not a forecast; rather an indication of current conditions. Soil moisture will often look similar to total storage (shown on the previous slide), since total storage comprises both soil moisture and storage in the saturated zone.

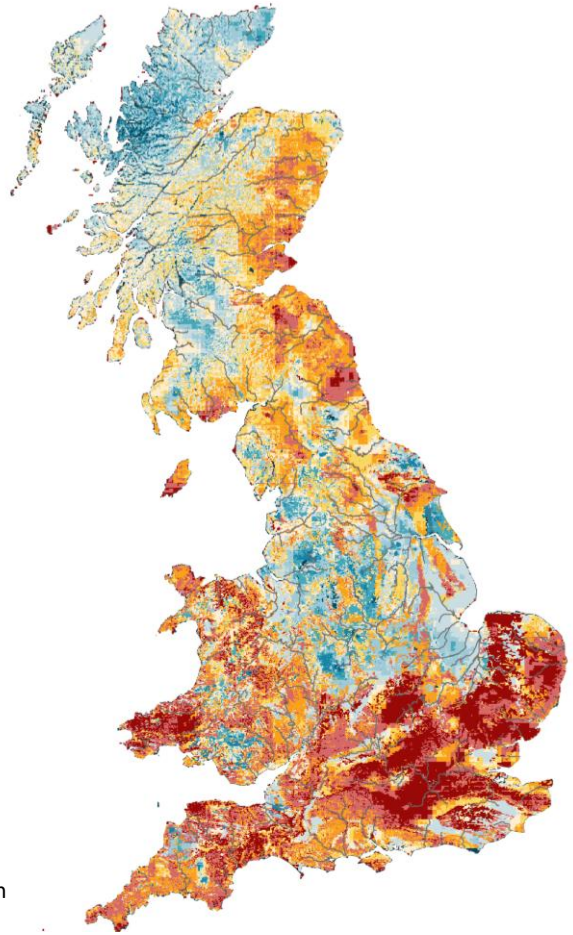
SUMMARY: Soil water stores have begun to recover in parts of northern England but remain very dry in much of southern England and Wales. Stores in western Scotland remain slightly wetter than normal for the time of year.

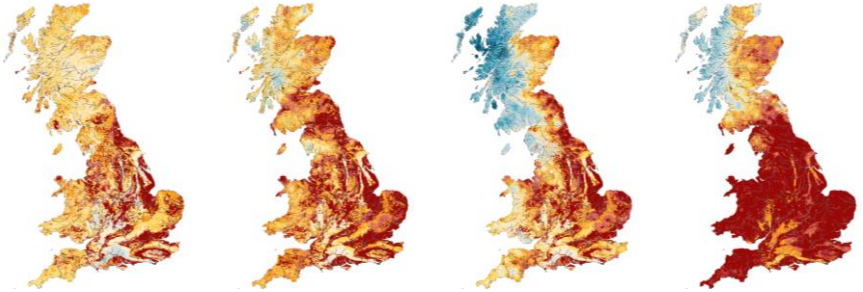
Relative wetness

Soil moisture anomaly as a % of maximum (positive wetness) or minimum (negative wetness) storage anomaly (zero indicates average value)

High (very wet)	>80
	60-80
Medium wetness	40-60
	20-40
Low wetness	0.01-20
Average conditions	-0.01-0.01
Low dryness	-20--0.01
	-40--20
Medium dryness	-60--40
	-80--60
High (very dry)	<-80
Major rivers	

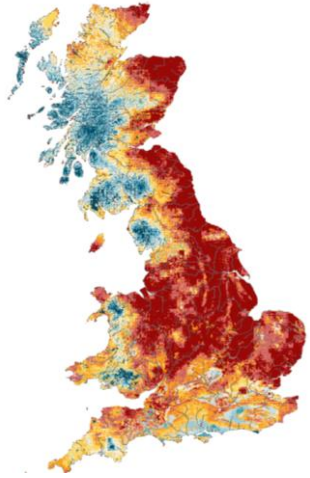
Labels refer to estimated storage on final day of named month





April May June July

August 2025



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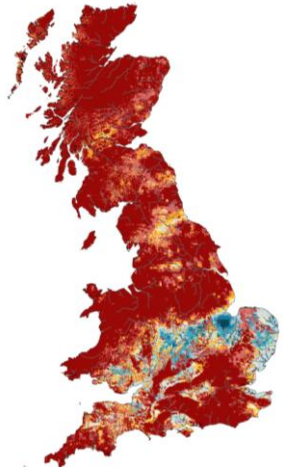

*Example month displaying extreme negative wetness

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Estimate of Additional Rainfall Required to Overcome Dry Conditions

Based on subsurface water storage estimated for 31 August 2026

Issue date: 01.09.2026

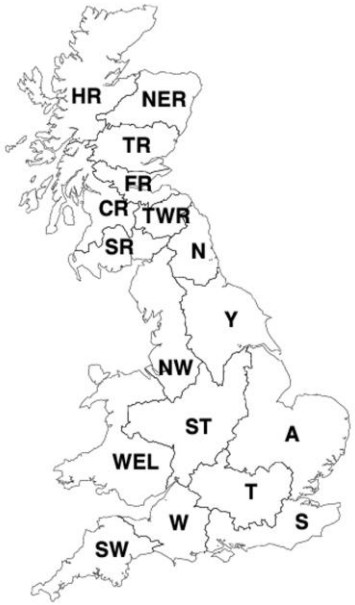
CURRENT CONDITIONS

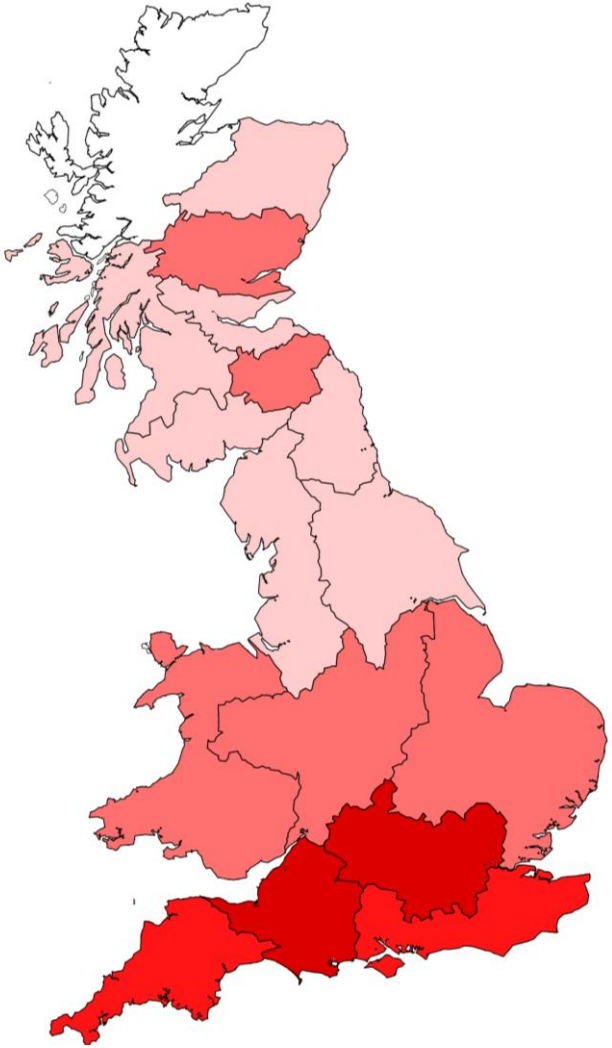
These maps show the Grid-to-Grid (G2G) hydrological model simulated subsurface water storage, expressed as an anomaly from the historical monthly mean (1981-2010), presented on a 1km grid and as regional means. Subsurface storage deficits, i.e. where the subsurface water storage anomaly is less than zero, are highlighted in red/pink.

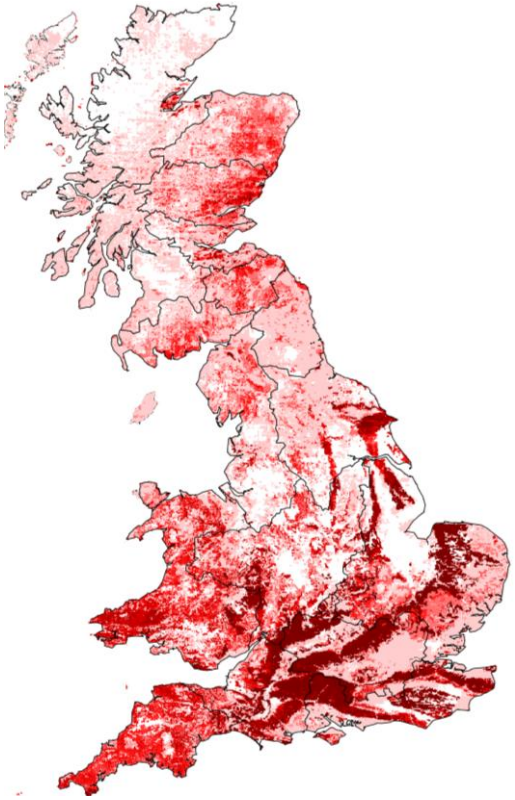
The subsurface storage deficit (mm) can be interpreted as an estimate of additional rainfall that would be required in future months to overcome dry conditions (i.e. rainfall in addition to what is expected on average). Regional mean values of additional rainfall required are provided in the table below.

Regional estimate of additional rainfall required (mm)

	SCOTLAND	
0	HR	Highlands Region
22	NER	North East Region
30	TR	Tay Region
20	FR	Forth Region
5	CR	Clyde Region
31	TWR	Tweed Region
20	SR	Solway Region
	ENGLAND	
14	N	Northumbria
11	NW	North West
17	Y	Yorkshire
26	ST	Severn Trent
48	A	Anglian
89	T	Thames
79	W	Wessex
74	S	Southern
55	SW	South West
	WALES	
46	WEL	Welsh







Water storage deficit (anomaly; mm)

- >125
- 100-125
- 75-100
- 50-75
- 25-50
- 0-25
- <0

September 2026

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Return Period of Rainfall Required to Overcome Dry Conditions

Period: September 2026 - February 2027

Issue date: 01.09.2026

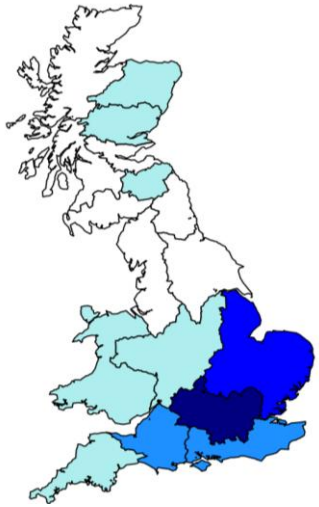
CURRENT CONDITIONS

These maps show the return period of the rainfall required to overcome dry conditions simulated using the Grid-to-Grid (G2G) hydrological model. The maps are coloured according to the return period of accumulated rainfall required to overcome the estimated current subsurface water storage deficit over the next one to six months (areas with no storage deficit will always be white). These maps do not provide a drought forecast; instead they indicate whether particularly heavy rainfall would be required to return to normal conditions for the time of year.

SUMMARY: Subsurface water stores are below normal across much of the country.

In some areas, especially the Southeast of England, these would require unusually high rainfall (>5-year return period) to recover to their average levels by the end of the year.

Sep



Oct

Nov

Dec

Jan

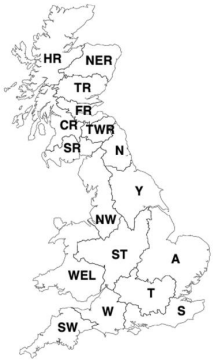
Feb

Rainfall amount (Probability)		Return period (years)
Low (Likely)	>20%	<5
	<20%	5-10
	<10%	10-25
	< 4%	25-50
High (Less likely)	< 2%	50-100
	< 1%	100-200
Extreme (Unlikely)	<0.5%	>200

SCOTLAND
- HR Highlands Region
- NER North East Region
- TR Tay Region
- FR Forth Region
- CR Clyde Region
- TWR Tweed Region
- SR Solway Region

ENGLAND
- N Northumbria
- NW North West
- Y Yorkshire
- ST Severn Trent
- A Anglian
- T Thames
- S Southern
- W Wessex
- SW South West

WALES
- WEL Welsh



September 2026

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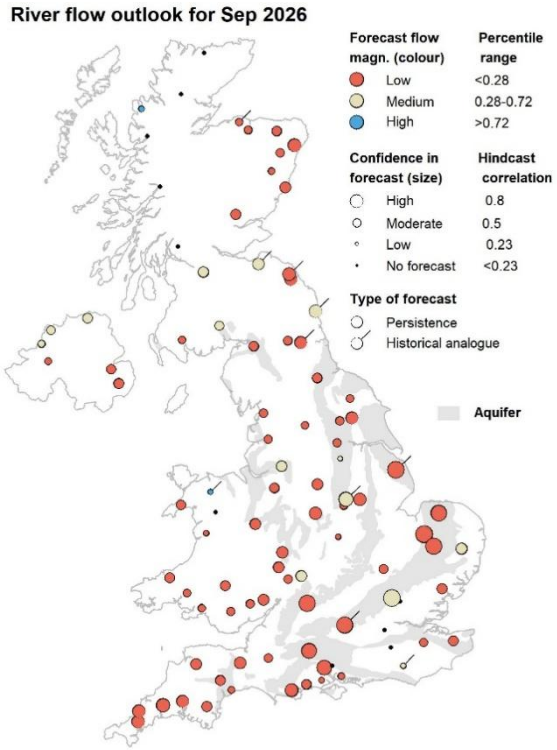
Outlook based on hydrological persistence and analogy

Overview

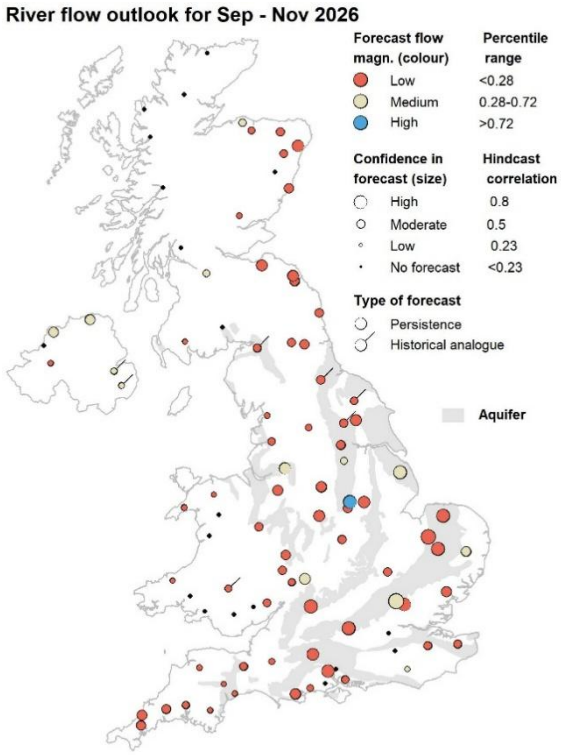
Period: September 2026 – November 2026

Issued on 07.09.2026 using data to the end of August 2026

SUMMARY: River flows across much of the UK are expected to be below normal during September and throughout the September to November period. While below normal flows are most likely, there remains a slight chance of isolated areas experiencing normal river flows.



1-month flow outlook



3-month flow outlook

Outlooks from hydrological analogues are based on a comparison of river flow during recent months with flows during the same months in previous years at a set of approximately 90 sites from across the UK. These sites are depicted on the two maps. Years with observed flows that most closely resemble current conditions are identified as the best analogues and the outlook is based on extrapolating from current conditions based on these analogues.

It is, however, often the case that a simpler forecast based on the persistence of river flow provides a better forecast than provided by analogy. This is particularly true for slowly responding catchments associated with aquifer outcrops.

Both methods are considered at each site and the forecast from the method with the higher confidence is presented. A simple classification of flows is used (high, medium and low) as indicated by the colours of the dots, with the confidence of the forecast being represented by the size of the dot. A tag on the dot indicates which method has been used in each instance.

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Outlook based on hydrological persistence and analogy

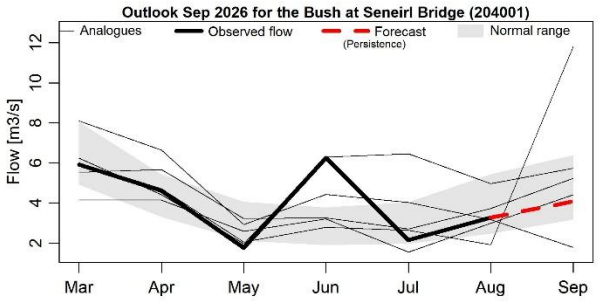
Site-based: 1 month outlook

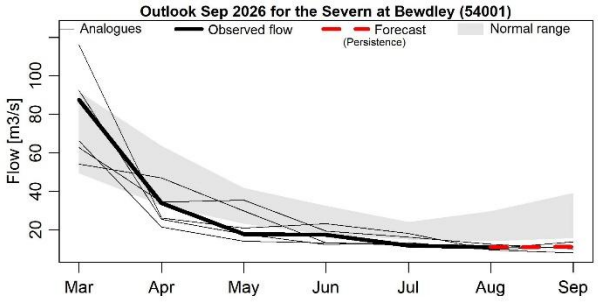
Period: September 2026

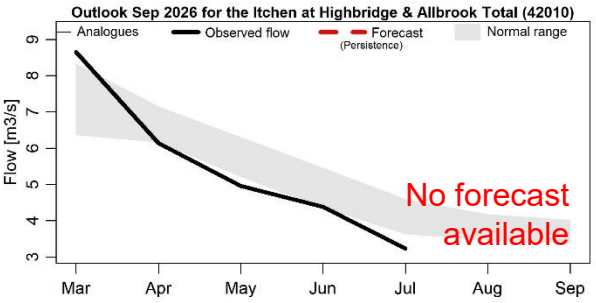
Issued on 07.09.2026 using data to the end of August 2026

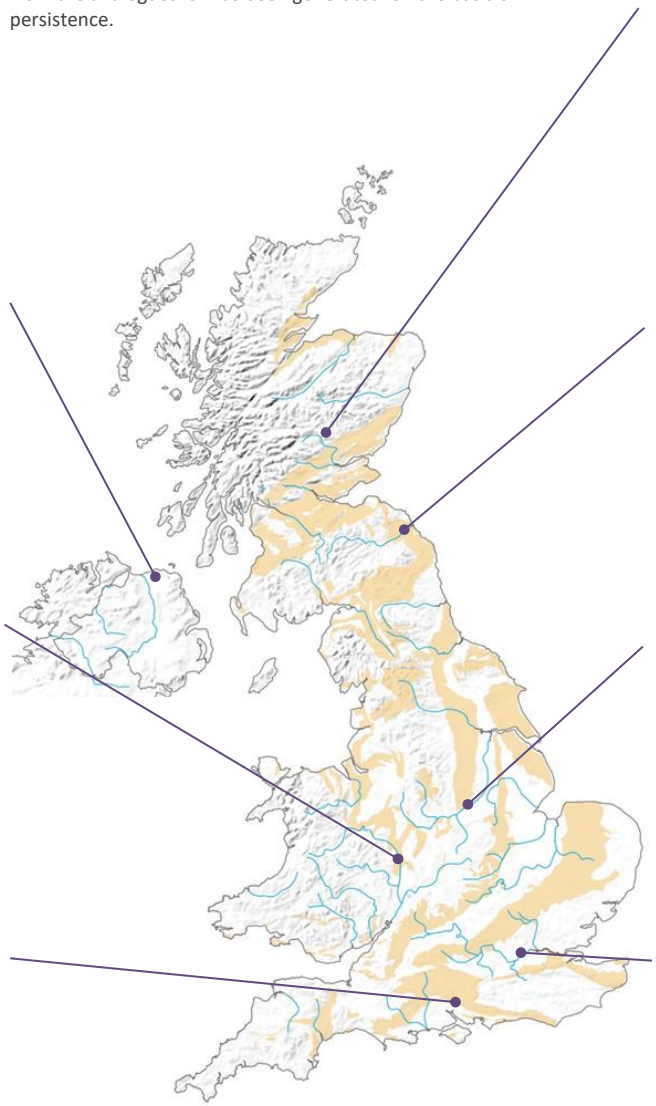
These figures provide insight into the hydrological analogue methodology for a set of sites from across the UK.

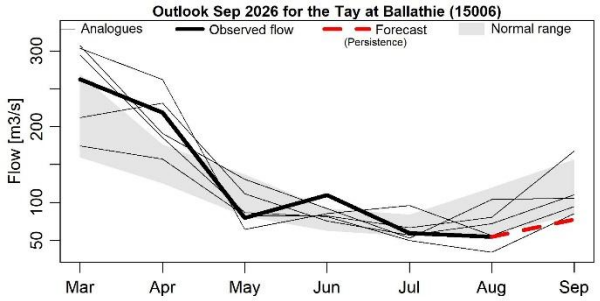
In each of the time series graphs the bold black line represents the observed flow during the past six months. The grey band indicates the normal flow range (the normal band includes 44% of observed flows in each month). The selected analogues are shown as thin lines and the trajectories that flows took in the following month are also shown. The forecast is shown as the dashed red line, and in each plot it states whether this has come from the analogues or has been generated on the basis of persistence.

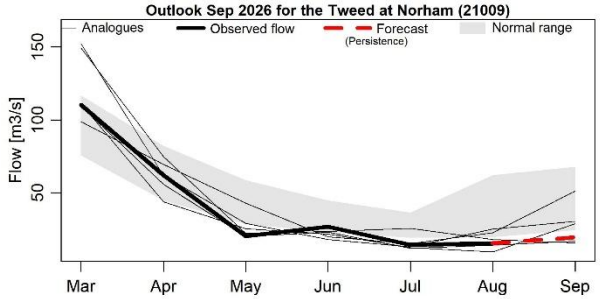


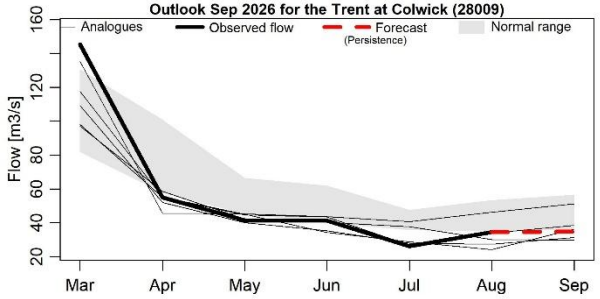


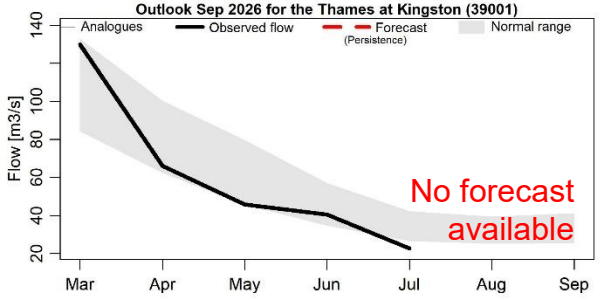












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RIVER FLOW ANALOGY

September 2026

Outlook based on hydrological persistence and analogy

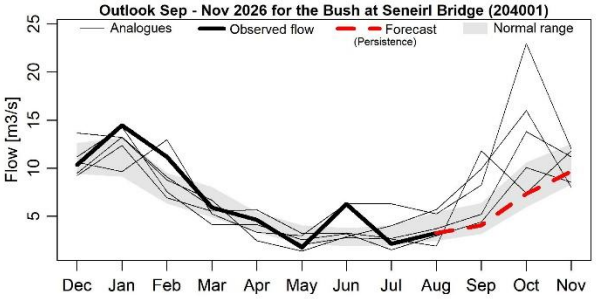
Site-based: 3 month outlook

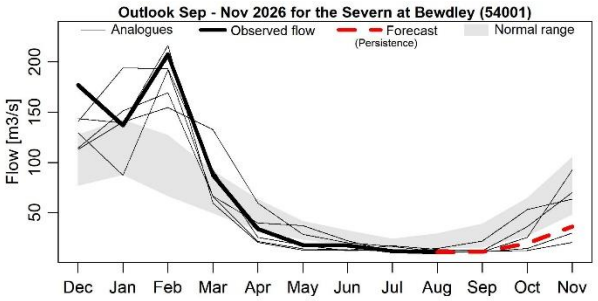
Period: September 2026 – November 2026

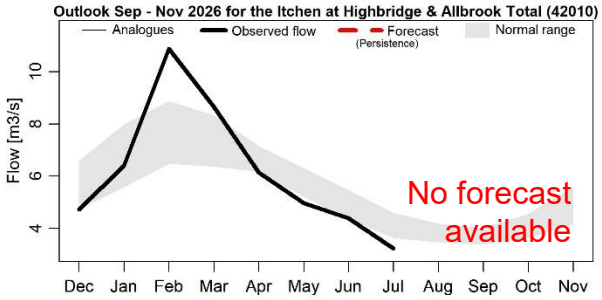
Issued on 07.09.2026 using data to the end of August 2026

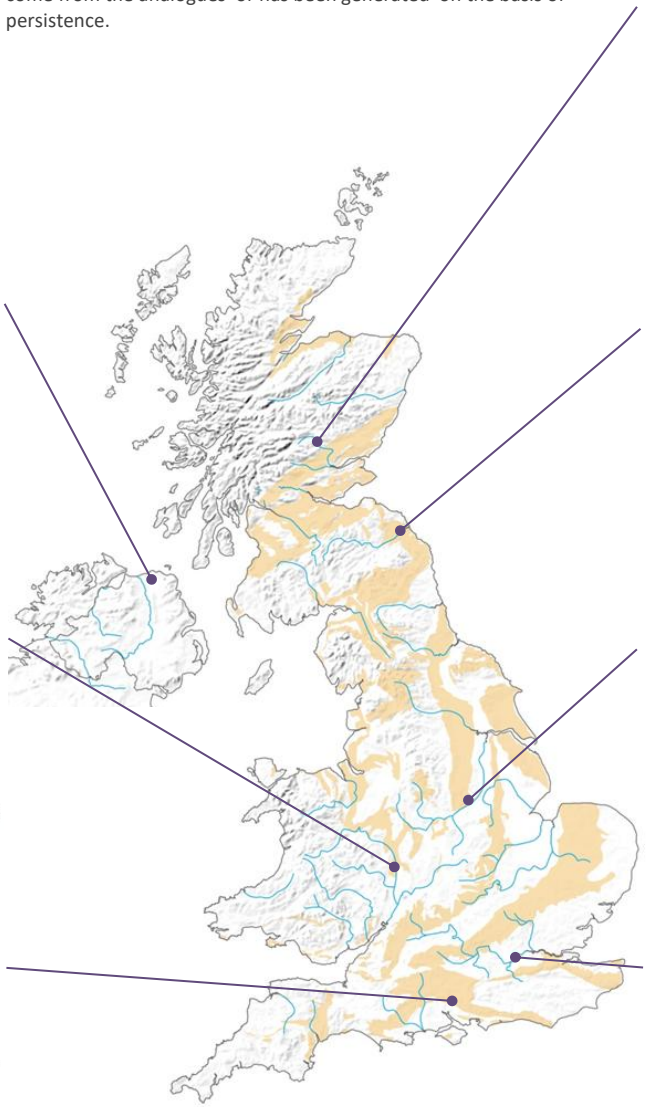
These figures provide insight into the hydrological analogue methodology for a set of sites from across the UK.

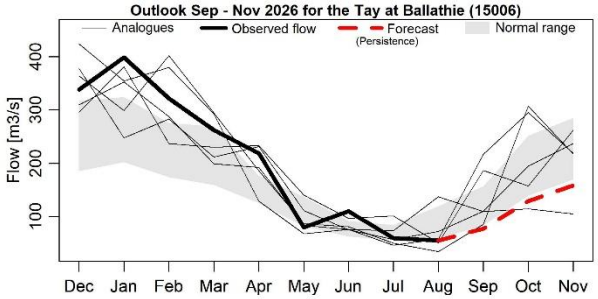
In each of the time series graphs the bold black line represents the observed flow during the past nine months. The grey band indicates the normal flow range (the normal band includes 44% of observed flows in each month). The selected analogues are shown as thin lines and the trajectories that flows took in the following three months are also shown. The forecast is shown as the dashed red line, and in each plot it states whether this has come from the analogues or has been generated on the basis of persistence.

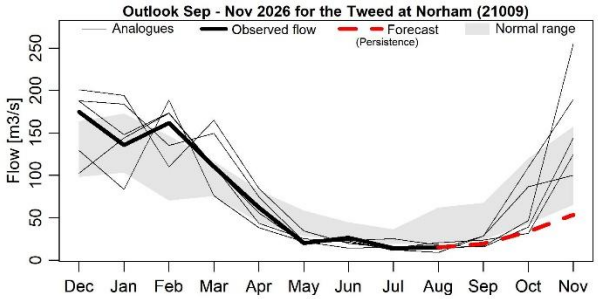


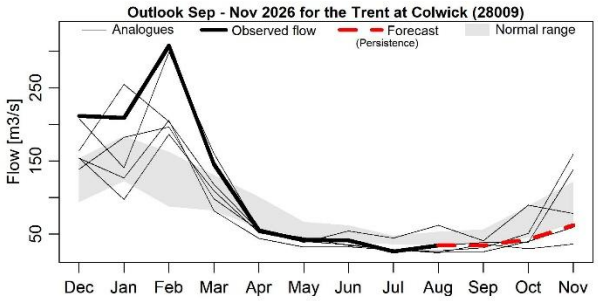


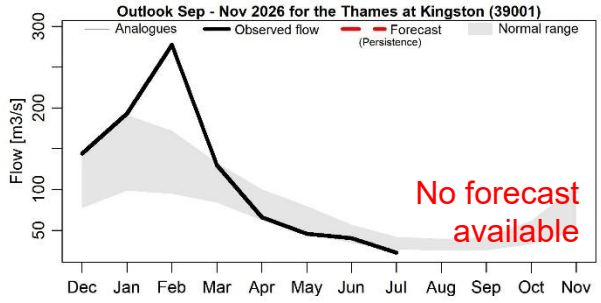












RIVER FLOW ANALOGY

September 2026

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

UK Centre for Ecology & Hydrology

British Geological Survey

Environment Agency

Outlook based on modelled flow from historical climate

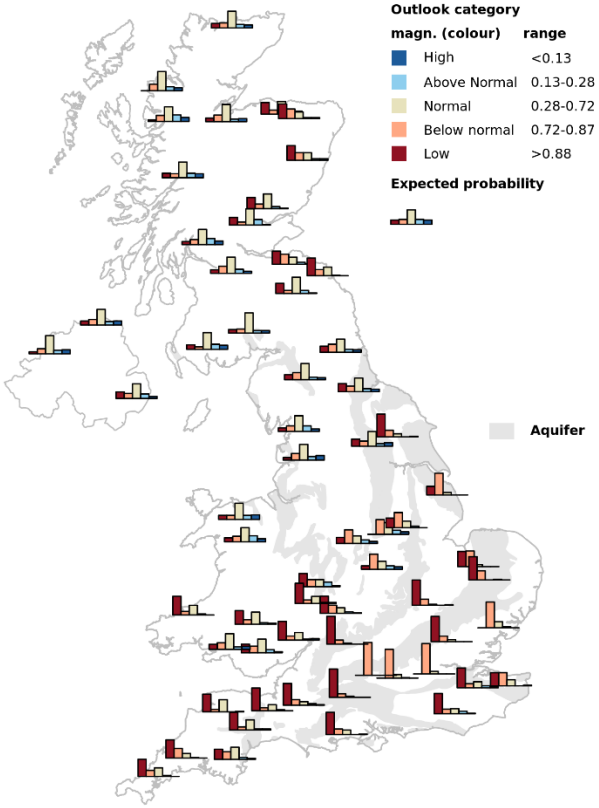
Overview

Period: September 2026 – February 2027

Issued on 07.09.2026 using data to the end of August 2026

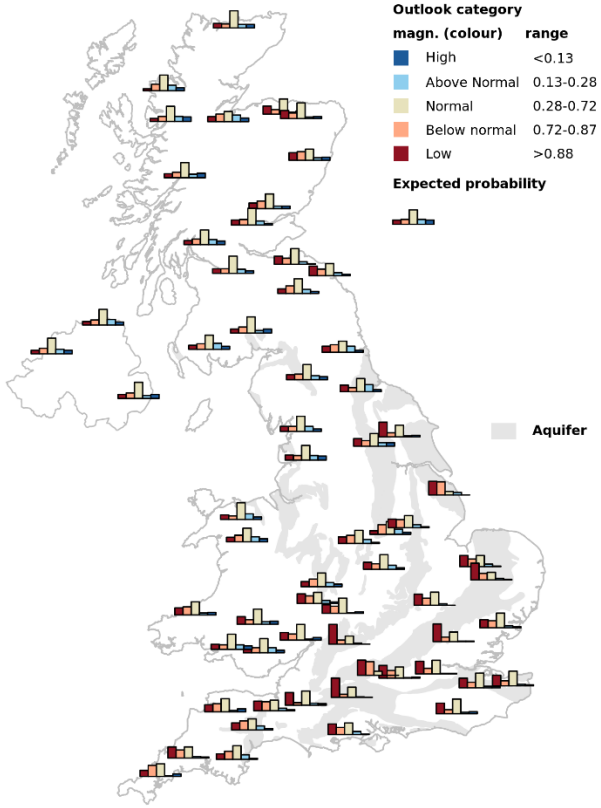
The outlook for September indicates that river flows are likely to be low across southern and central England, and southern Wales. In northeastern England and eastern Scotland, flows are likely to be normal to below normal. Elsewhere flows are likely to be in the normal range. The September to November outlook indicates that flows are likely to be normal to below normal across southern and central England and eastern Scotland, elsewhere flows are likely to be in the normal range.

1-month river flow outlook starting Sep 2026



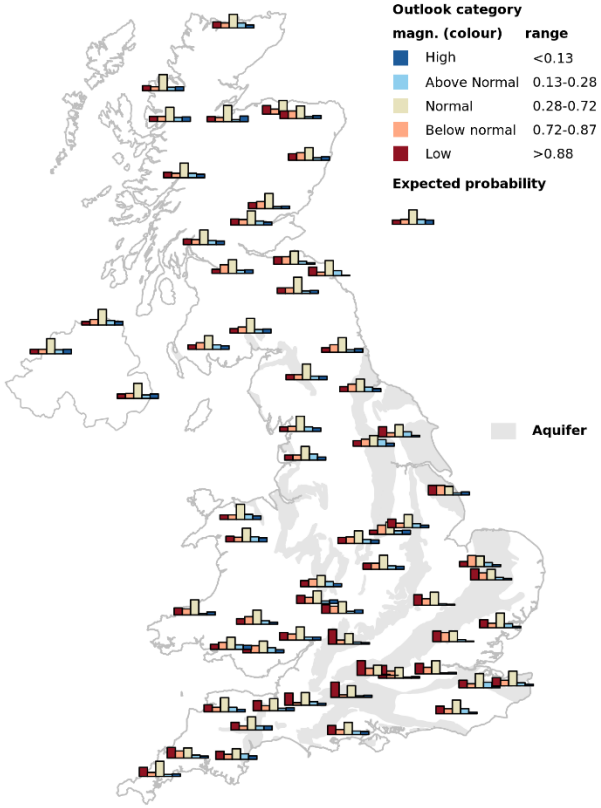
This outlook is based on monthly ensembles of historical sequences of observed climate (rainfall and potential evapotranspiration) that form input to a hydrological model. The outputs are probabilistic simulations of the average river flow over the forecast period (1 to 12 months ahead), at each location. The simulations are generated by the GR6J conceptual rainfall-runoff model from INRAE (France) calibrated on observed or naturalised flows.

3-month river flow outlook starting Sep 2026



The bar plot maps show the outlook distribution for 1, 3 and 6-month period for 64 catchments across England and Wales. Each bar plot represents the probabilistic distribution of the simulated river flow compared to the historical river flow, for the same n-month period. The probabilities fall within five categories, classified as: low, below normal, normal, above normal and high.

6-month river flow outlook starting Sep 2026



This outlook is based entirely on historical sequences and therefore does not contain any knowledge of the state of the atmosphere and ocean. It is hence possible that some of the historical sequences used might be inconsistent with current large-scale atmospheric conditions and would therefore be unlikely to occur in the next few months.

Please note that *Outlooks based on modelled flow from historical climate* from October 2023 onwards were generated using GR6J model, whereas until September 2023, they were produced using GR4J model. For more details, please see the section on River flow from historical climate at this link: https://hydoutuk.net/about/methods/river-flows

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UK Centre for Ecology & Hydrology

British Geological Survey

Environment Agency

Outlook based on modelled flow from historical climate

Overview

This outlook is based on monthly ensembles of historical sequences of observed climate (rainfall and potential evapotranspiration) that form input to a hydrological model. The outputs are probabilistic simulations of the average river flow over the forecast period (1 to 12 months ahead), at each location. The simulations are generated by the GR6J conceptual rainfall-runoff model from INRAE (France) calibrated on observed or naturalised flows.

The stack diagrams show the variation over time of the outlook distribution for a number of individual catchments. Each graph represents variation over time of the number of simulated river flows, in each month ensemble, that fall within each of seven categories: exceptionally low, notably low, below normal, normal, above normal, notably high and exceptionally high. The categories represent cumulative flow conditions, e.g. For 3-month, the simulated total 3-month flow compared to the historical 3-month flow distribution. The monthly variations can be compared to the long-term average distribution of river flows (shown as columns on the right of each timeline graph).

This outlook is based entirely on historical sequences and therefore does not contain any knowledge of the state of the atmosphere and ocean. It is hence possible that some of the historical sequences used might be inconsistent with current large-scale atmospheric conditions and would therefore be unlikely to occur in the next few months.

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RIVER FLOW FROM HISTORICAL CLIMATE

September 2026

UK Centre for Ecology & Hydrology

Met Office

Outlook based on modelled flow using historical weather analogues

Period: September 2026 – November 2026

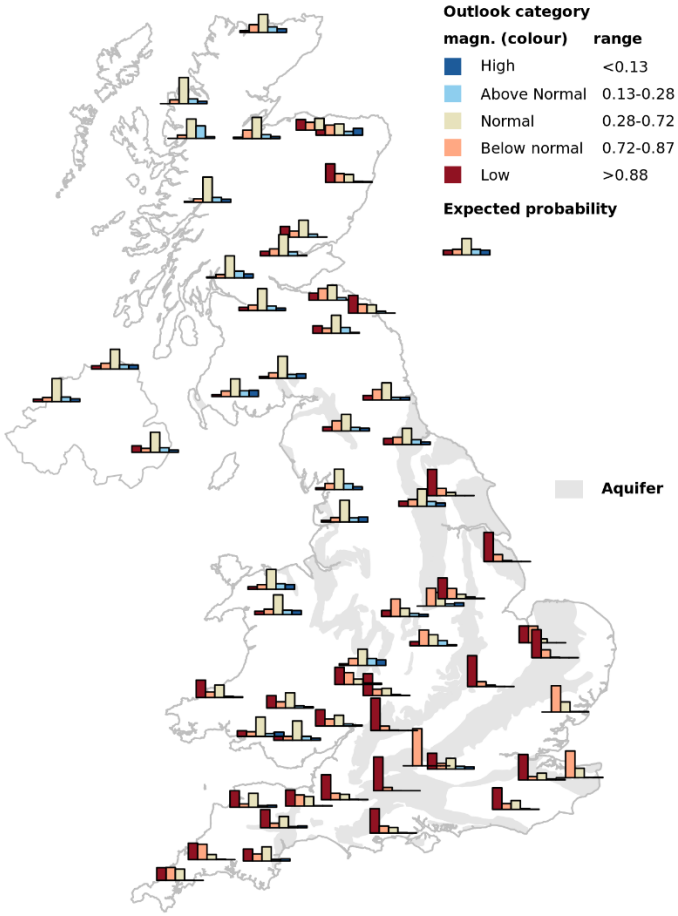
Issued on 07.09.2026 using data to the end of August 2026

The outlook for September indicates that river flows are likely to be low across eastern, central, and southern England, and normal to below normal in southern Wales and eastern Scotland. Flows elsewhere are likely to be in the normal range. The September to November outlook indicates a shift towards wetter conditions, with flows likely to be normal to above normal in southwestern Scotland and northern England, and in the normal range elsewhere. Normal to below normal flows are expected to persist in some slow responding catchments.

The historical weather analogues method uses Met Office predictions of average weather 1 and 3 months ahead to provide inputs to a hydrological model. Like the ESP method, observed rainfall and temperature data from past years are used to drive the predictions, however, the analogue method constrains the selection of past rainfall using the weather conditions in the meteorological forecasts (which are summarised for this forecast in the Met Office likelihood of impacts blocks underneath the maps). For each member of the Met Office forecast ensemble, the 10 analogues that best match the predicted average weather pattern (surface pressure map) over the forecast period are selected. Precipitation and temperature sequences constructed from the selected analogue scenarios are corrected to account for historic trends and used as inputs to hydrological models. Here, the GR6J model is run using these inputs, creating an ensemble of hydrological forecasts.

The outputs shown in the maps are the likelihoods of different outcomes for the average river flow over the one-month and three-month forecast periods at each location. The outlooks maps show the distribution for 64 catchments across the United Kingdom. Each bar plot represents the likelihood of the simulated river flow compared to the historical river flow, for the same n-month period. The probabilities fall within five categories, classified as: low, below normal, normal, above normal and high. The expected climatological probability of ensemble members in each of these categories is shown under the legend.

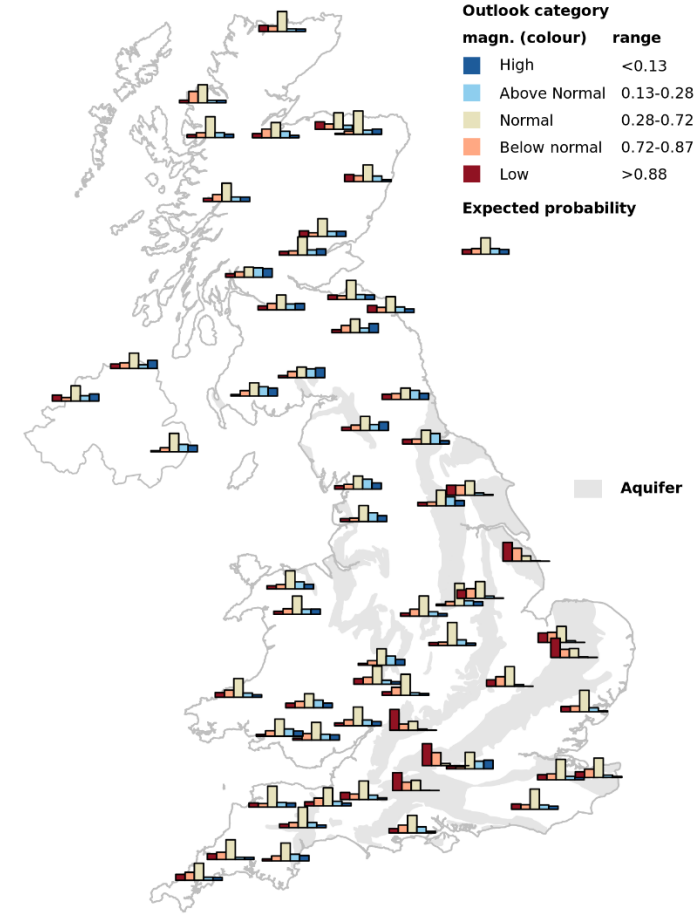
1-month river flow outlook starting Sep 2026



Met Office 1-month likelihood of precipitation impact

15%	60%	25%
chance the month will be DRY	chance the month will be NEAR AVERAGE	chance the month will be WET
0.8× the normal chance	1.0× the normal chance	1.3× the normal chance

3-month river flow outlook starting Sep 2026



Met Office 3-month likelihood of precipitation impact

15%	55%	30%
chance the season will be DRY	chance the season will be NEAR AVERAGE	chance the season will be WET
0.8× the normal chance	0.9× the normal chance	1.5× the normal chance

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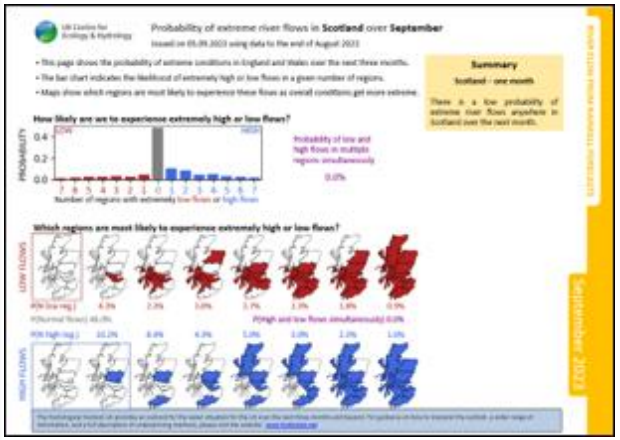
Forecasts of river flows using Met Office rainfall forecasts

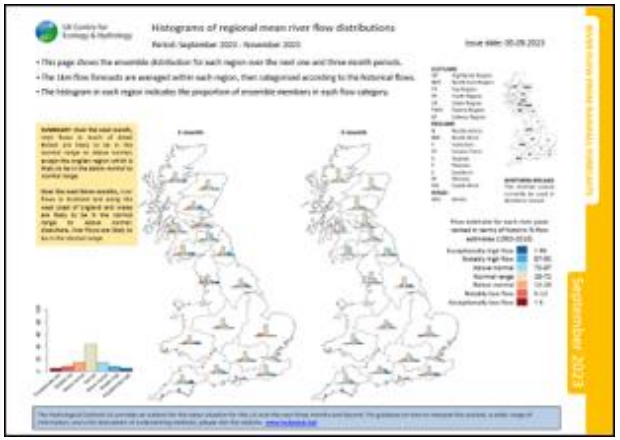
- These (yellow edged) pages summarise river flow forecasts produced by the UKCEH Water Balance Model.
- This model uses an ensemble of rainfall forecasts provided by the Met Office and a hydrological model to forecast river flows for the next one- and three-months ahead.
- A detailed description of these forecast products can be found on the final page, and a full technical description is given in the documentation available via the Hydrological Outlook website.
- Additional forecast products are available on the Hydrological Outlook Portal, via the website.

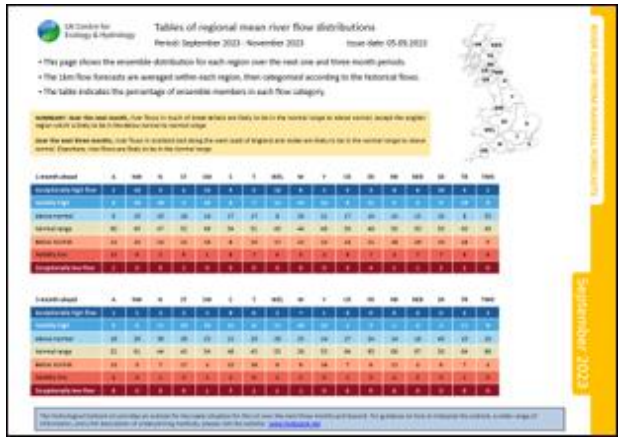
Probability of extreme river flows



- **Use these pages if you are interested in extreme conditions across multiple regions.**
- These pages summarise the risk of extremely high or low flows being observed across GB.
- The four pages show the risk for **Scotland** and for **England & Wales** over the next one and three months.
- The slides indicate the **probability of widespread extreme conditions** and which regions are most likely to experience extremely high or low flows.

Regional mean river flow distributions





- **Use these pages if you are interested in the ensemble distribution in a single region.**
- The first page shows the ensemble distribution as a histogram for each region.
- The second page shows the percentage of ensemble members in each band for each region.

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RIVER FLOW FROM RAINFALL FORECASTS

September 2026

Probability of extreme river flows in **Scotland** over **September**

Issued on 01.09.26 using data to the end of August 2026

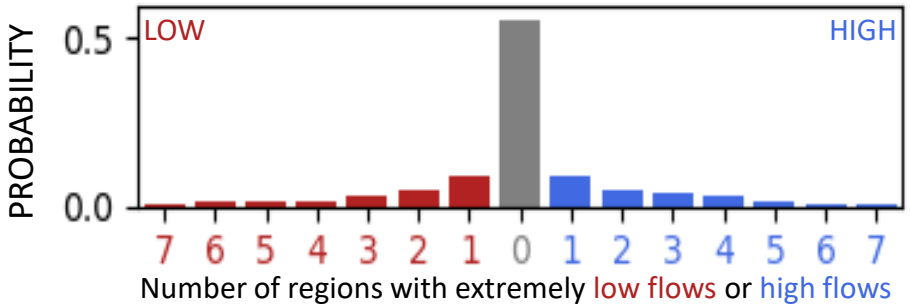
This page shows the **probability of extreme conditions in Scotland** over the next month. The bar chart indicates the likelihood of extremely high or low flows in a given number of regions. Maps show which regions are most likely to experience these flows as overall conditions get more extreme.

Summary

Scotland – one month

Extremely high or low flows are not likely to be widespread in Scotland over the next month.

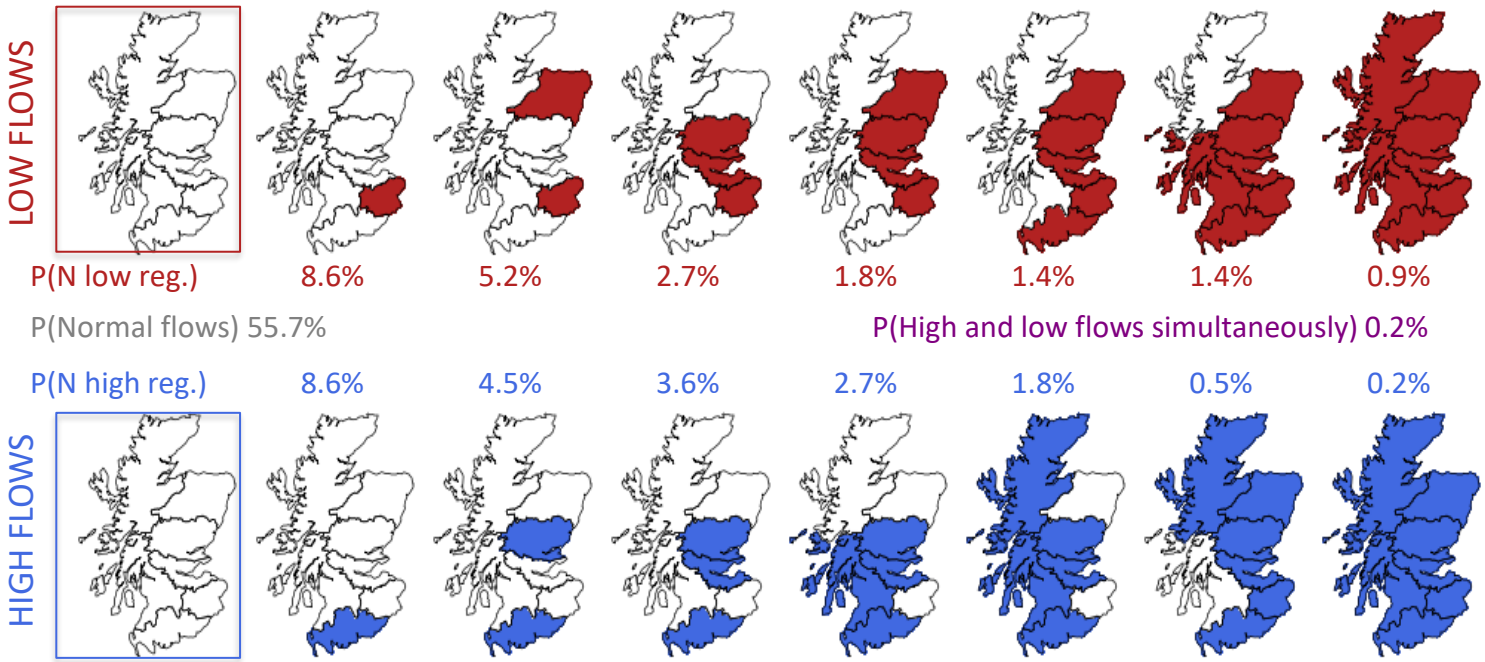
How likely are we to experience extremely low or high flows?



Probability of low and high flows in multiple regions simultaneously

0.2%

Which regions are most likely to experience extremely low or high flows?



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RIVER FLOW FROM RAINFALL FORECASTS

September 2026

Probability of extreme river flows in **Scotland** over **September to November**

Issued on 01.09.26 using data to the end of August 2026

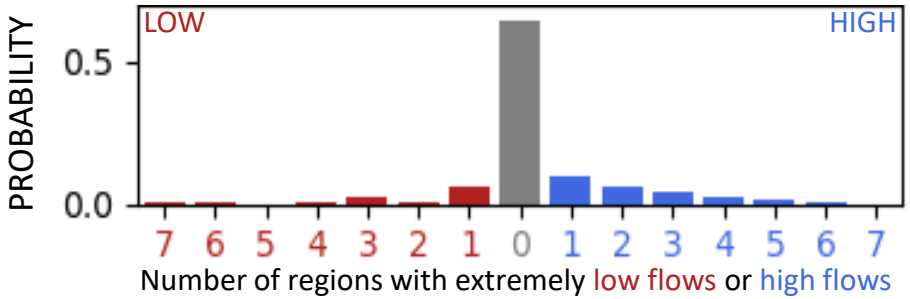
This page shows the **probability of extreme conditions in Scotland** over the next three months. The bar chart indicates the likelihood of extremely high or low flows in a given number of regions. Maps show which regions are most likely to experience these flows as overall conditions get more extreme.

Summary

Scotland – three months

Extremely high or low flows are not likely to be widespread in Scotland over the next three months.

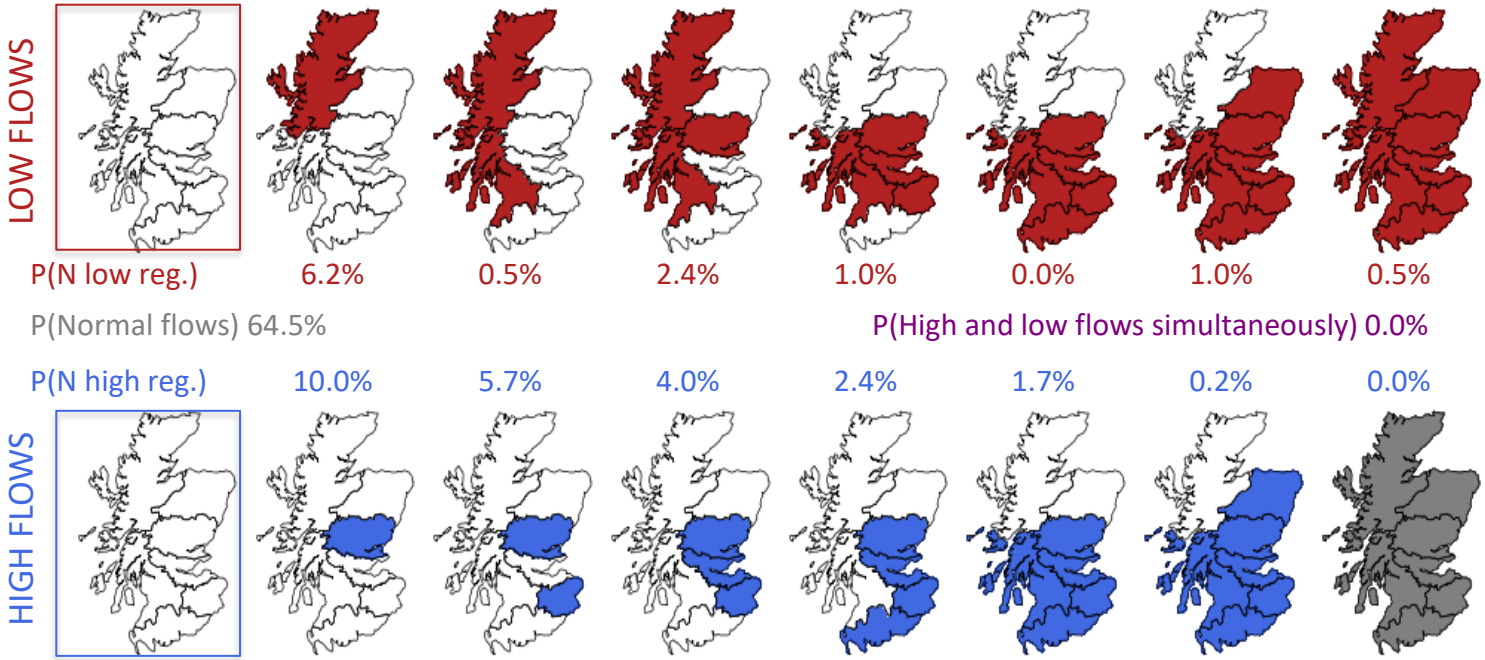
How likely are we to experience extremely low or high flows?



Probability of low and high flows in multiple regions simultaneously

0.0%

Which regions are most likely to experience extremely low or high flows?



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RIVER FLOW FROM RAINFALL FORECASTS

September 2026

Probability of extreme river flows in **England and Wales** over **September**

Issued on 01.09.26 using data to the end of August 2026

RIVER FLOW FROM RAINFALL FORECASTS

September 2026

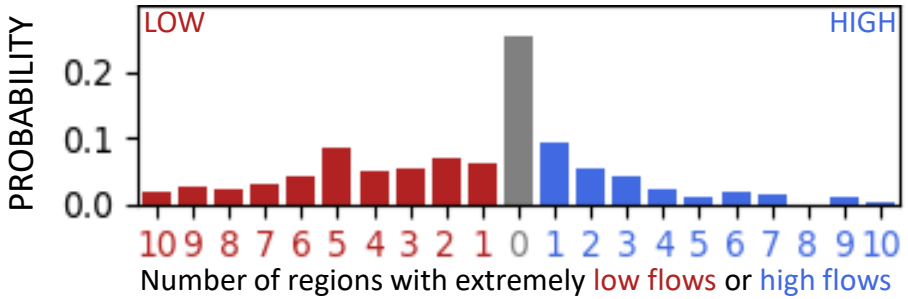
This page shows the **probability of extreme conditions in England and Wales** over the next month. The bar chart indicates the likelihood of extremely high or low flows in a given number of regions. Maps show which regions are most likely to experience these flows as overall conditions get more extreme.

Summary

England and Wales – one month

Extremely low flows are likely to persist in southern England over the next month.

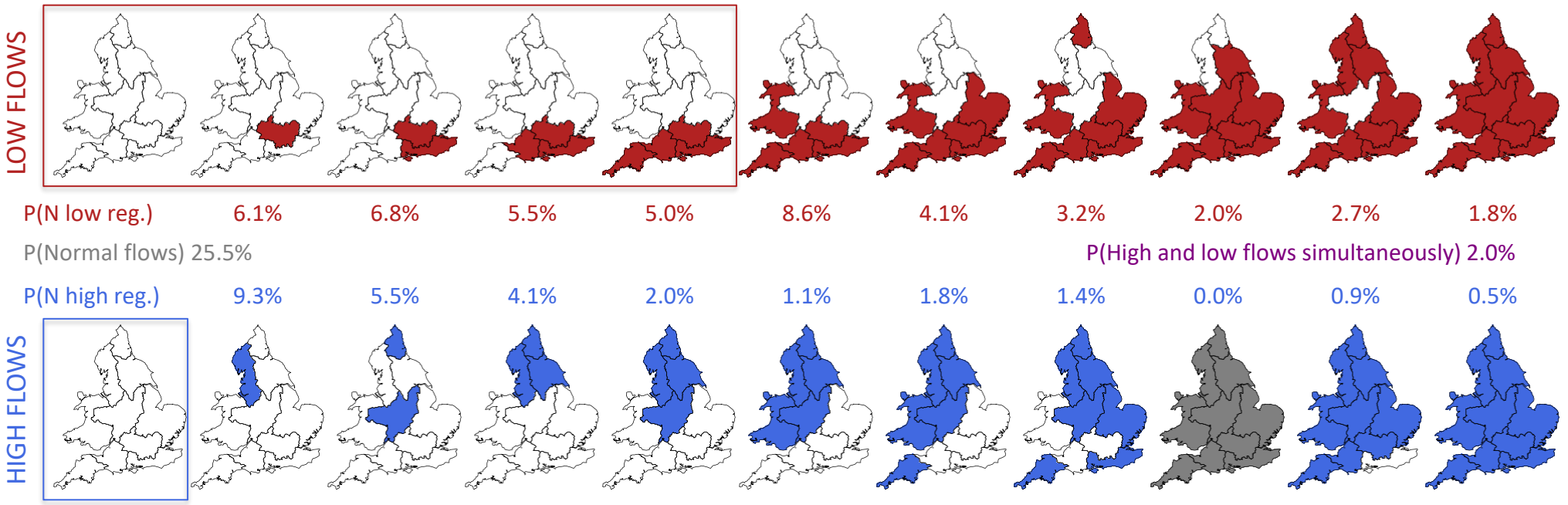
How likely are we to experience extremely low or high flows?



Probability of low and high flows in multiple regions simultaneously

2.0%

Which regions are most likely to experience extremely low or high flows?



P(N low reg.)	6.1%	6.8%	5.5%	5.0%	8.6%	4.1%	3.2%	2.0%	2.7%	1.8%
P(N high reg.)	9.3%	5.5%	4.1%	2.0%	1.1%	1.8%	1.4%	0.0%	0.9%	0.5%

P(Normal flows) 25.5%

P(High and low flows simultaneously) 2.0%

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Probability of extreme river flows in **England and Wales** over **September to November**

Issued on 01.09.26 using data to the end of August 2026

RIVER FLOW FROM RAINFALL FORECASTS

September 2026

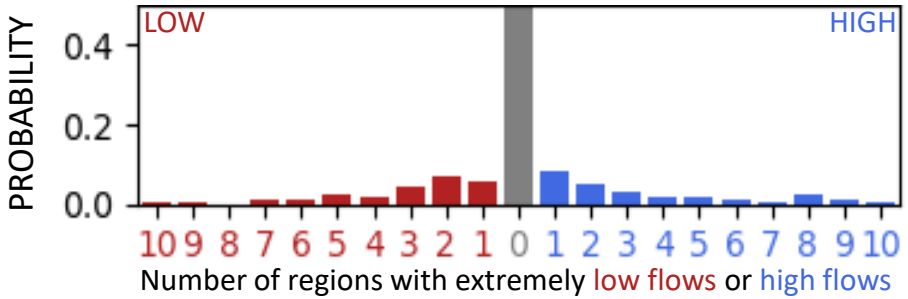
This page shows the **probability of extreme conditions in England and Wales** over the next three months. The bar chart indicates the likelihood of extremely high or low flows in a given number of regions. Maps show which regions are most likely to experience these flows as overall conditions get more extreme.

Summary

England and Wales – three months

River flows in England and Wales are unlikely to remain extreme over the next three months.

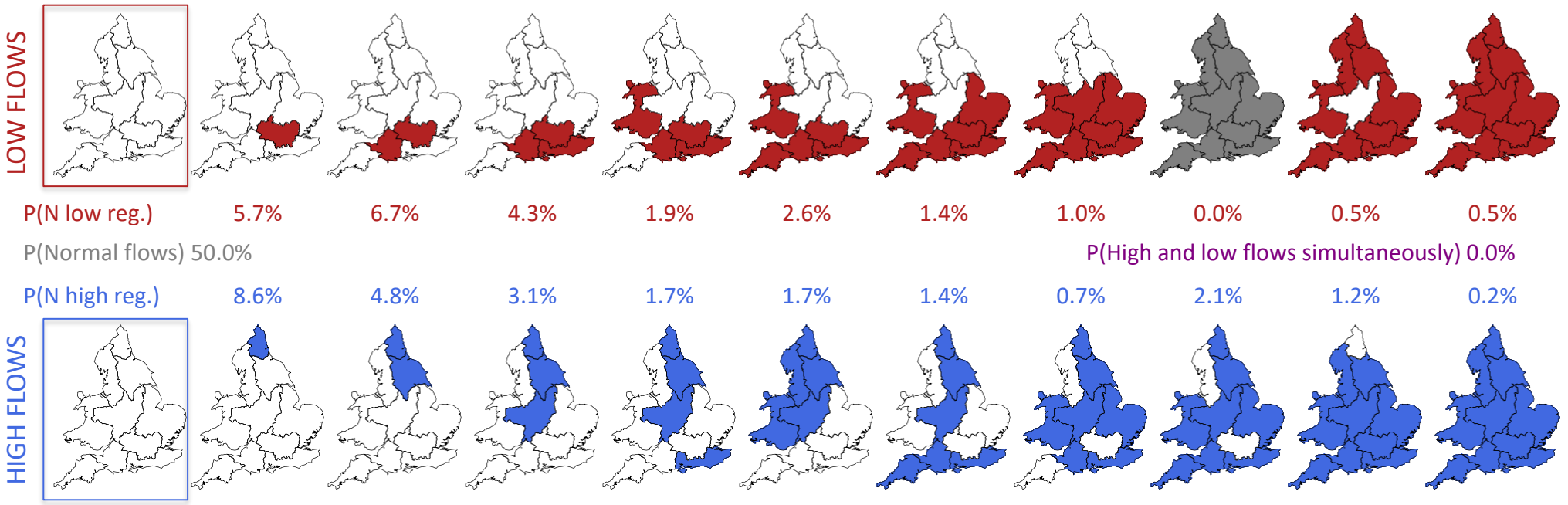
How likely are we to experience extremely low or high flows?



Probability of low and high flows in multiple regions simultaneously

0.0%

Which regions are most likely to experience extremely low or high flows?



P(N low reg.)	5.7%	6.7%	4.3%	1.9%	2.6%	1.4%	1.0%	0.0%	0.5%	0.5%
P(N high reg.)	8.6%	4.8%	3.1%	1.7%	1.7%	1.4%	0.7%	2.1%	1.2%	0.2%

P(Normal flows) 50.0%

P(High and low flows simultaneously) 0.0%

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Histograms of GB regional mean river flow distributions

Period: September 2026 - November 2026

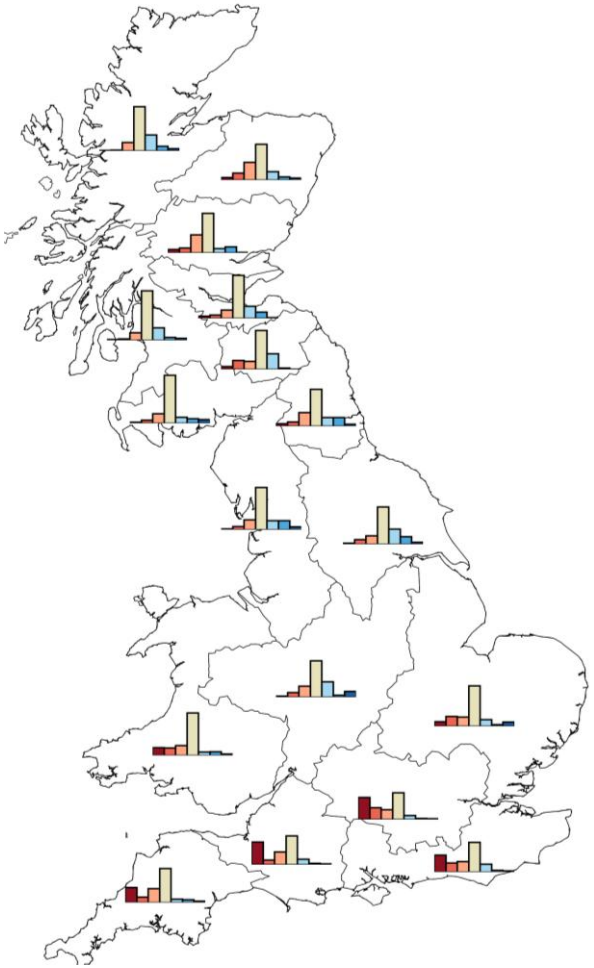
Issue date: 01.09.2026

- This page shows **the ensemble flow distribution for each region** over the next 1- and 3-month periods.
- The 1km flow forecasts are averaged within each region, then categorised according to the historical flows.
- The histogram in each region indicates the proportion of ensemble members in each flow category.

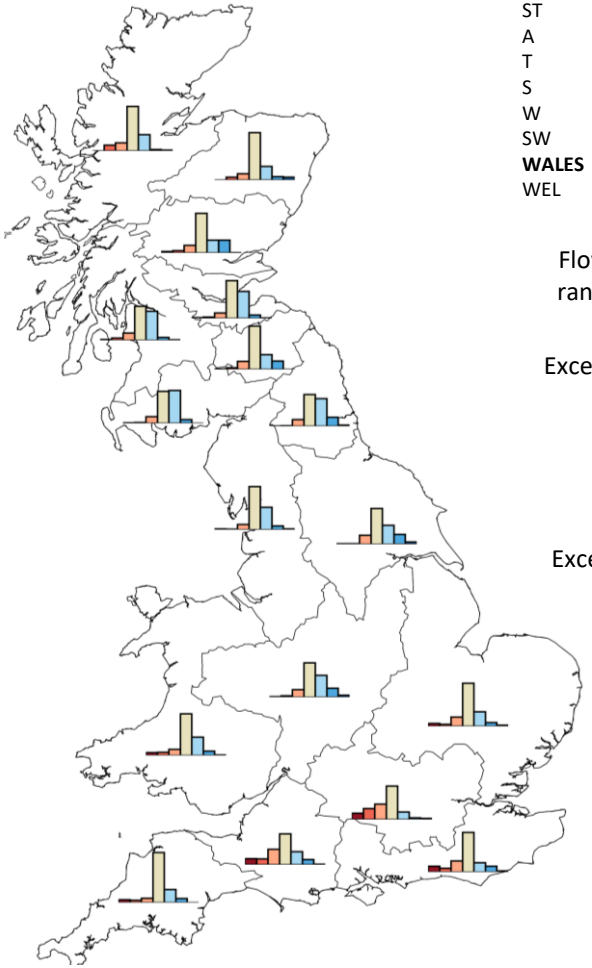
SUMMARY: Over the next month, river flows in southern England and Wales are likely to be in the *normal range* to *exceptionally low.* Elsewhere, river flows are likely to be in the *normal range.*

Over the next three months, river flows in southern England are likely to return to their *normal range,* except the Thames and Wessex regions which may remain *below normal* or *notably low.* Elsewhere, river flows are likely to be in the *normal range* to *above normal*.

1-month



3-month



SCOTLAND

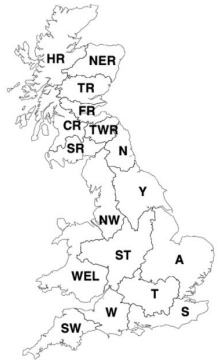
HR	Highlands Region
NER	North East Region
TR	Tay Region
FR	Forth Region
CR	Clyde Region
TWR	Tweed Region
SR	Solway Region

ENGLAND

N	Northumbria
NW	North West
Y	Yorkshire
ST	Severn Trent
A	Anglian
T	Thames
S	Southern
W	Wessex
SW	South West

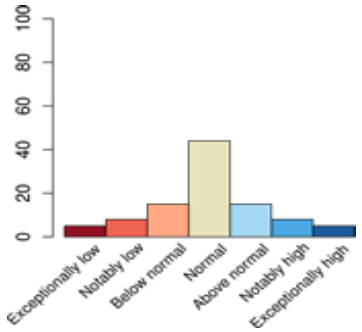
WALES

WEL	Welsh



Flow estimate for each river pixel ranked in terms of historic % flow estimates (1963-2016)

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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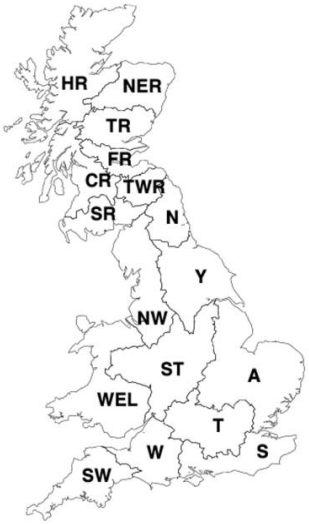
RIVER FLOW FROM RAINFALL FORECASTS

September 2026

Tables of GB regional mean river flow distributions

Period: September 2026 - November 2026 Issue date: 01.09.2026



- This page shows **the ensemble flow distribution for each region** over the next 1- and 3-month periods.
- The 1km flow forecasts are averaged within each region, then categorised according to the historical flows.
- The table indicates the percentage of ensemble members in each flow category.

SUMMARY: Over the next month, river flows in southern England and Wales are likely to be in the *normal range* to *exceptionally low.* Elsewhere, river flows are likely to be in the *normal range.*

Over the next three months, river flows in southern England are likely to return to their *normal range,* except the Thames and Wessex regions which may remain *below normal* or *notably low.* Elsewhere, river flows are likely to be in the *normal range* to *above normal*.

1-month ahead	A	NW	N	ST	SW	S	T	WEL	W	Y	CR	FR	HR	NER	SR	TR	TWR
Exceptionally high flow	6	4	2	8	2	1	1	2	1	3	2	1	3	3	5	1	0
Notably high	2	12	11	3	4	2	2	5	2	10	4	8	6	4	6	8	2
Above normal	9	12	11	20	4	10	5	4	7	20	16	16	21	11	8	6	20
Normal range	53	55	48	48	44	39	35	56	38	49	65	56	58	47	63	52	51
Below normal	12	13	18	14	18	14	13	13	17	11	10	11	11	23	12	23	11
Notably low	13	4	6	6	7	12	16	10	6	6	2	4	1	9	4	6	12
Exceptionally low flow	6	1	3	1	20	22	29	10	30	2	1	3	0	3	2	4	4

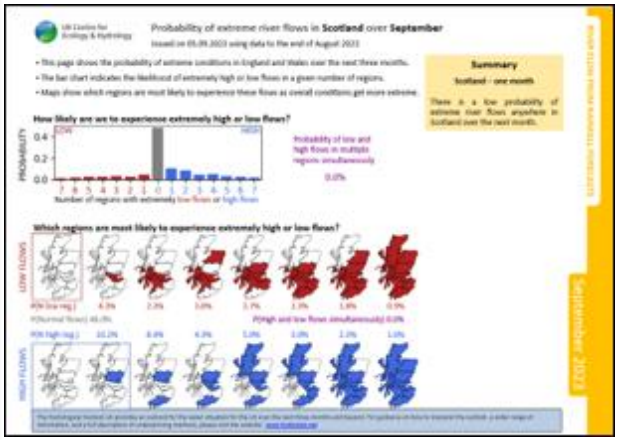
3-month ahead	A	NW	N	ST	SW	S	T	WEL	W	Y	CR	FR	HR	NER	SR	TR	TWR
Exceptionally high flow	1	1	1	2	0	1	1	0	0	3	1	1	1	4	0	0	0
Notably high	5	5	12	12	5	8	2	6	7	13	4	4	2	4	5	17	11
Above normal	19	29	36	29	17	12	10	24	17	25	38	36	21	18	43	17	19
Normal range	56	56	41	45	66	52	44	54	40	47	44	50	58	62	42	52	57
Below normal	12	7	9	10	6	14	20	8	20	12	10	7	10	8	9	10	10
Notably low	2	0	0	2	3	5	14	4	7	0	3	2	7	4	1	3	2
Exceptionally low flow	4	1	0	0	4	8	8	4	8	0	1	1	0	0	0	2	0

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

Forecasts of river flows using Met Office rainfall forecasts

- The data on these (yellow-bordered) pages are based on approximately 400 rainfall scenarios provided by the Met Office, which are used as inputs to a water balance hydrological model.
- River flow forecasts for every 1km grid cell are ranked according to the historical flow estimates and aggregated within each region.
- A full description of this method and these summary products is given in the technical documentation available via the Hydrological Outlook website.

Probability of extreme river flows



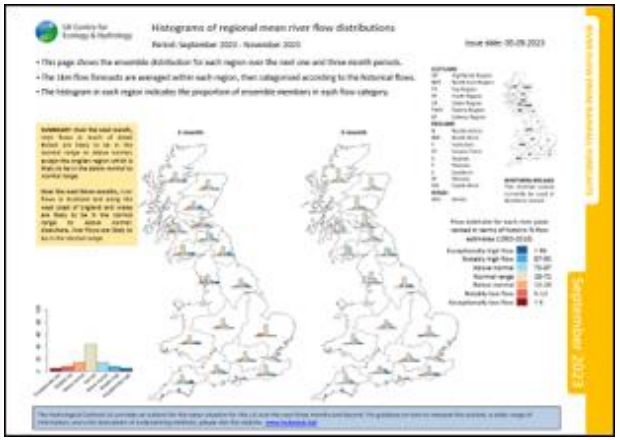
Extreme river flows are defined as those which rank in the lowest or highest 13% of historical flow estimates (1963 - 2016). This definition encompasses the 'Notably' and 'Exceptionally' high/low flow bands used elsewhere in the Outlook.

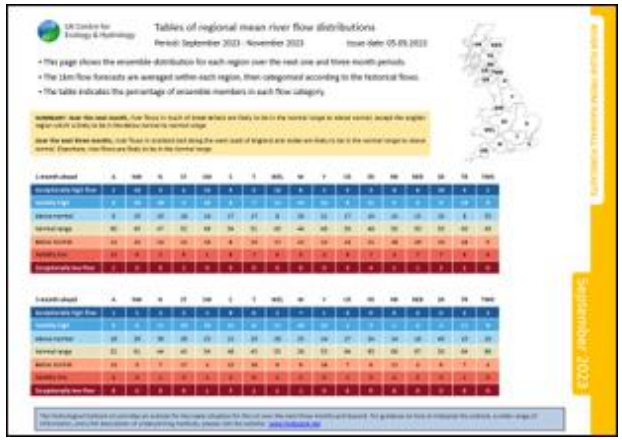
The bar chart shows the probability of a given number of regions experiencing extremely high/low flows, where scenarios showing both extremely high and extremely low flows in different regions simultaneously excluded. These probabilities are also shown beneath the maps.

Shaded regions on each map are those most likely to experience extreme flows from the set of scenarios with at least a given number of regions experiencing such flows. If shown, grey maps indicate scenarios not observed in the ensemble.

The box drawn around some maps spans the central 50% probability interval, excluding scenarios where extremely high/low flows are observed simultaneously. If these excluded cases constitute a significant probability, details are given in the yellow summary box.

Regional mean river flow distributions





The maps illustrate the ensemble distribution of regional mean river flows. The historical distribution is shown at bottom-left, and allows deviations from the normal distribution to be determined by comparing the forecast distribution to the historical distribution. A summary is given in the yellow box.

The table gives access to the data shown in the histograms. The numbers in the tables are the percentage of ensemble forecasts falling in each of the flow categories. As before results are averaged by region then ranked in terms of 54 years of historical regional flow estimates (1963 – 2016).

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British Geological Survey

Outlook based on modelled groundwater level & climate forecast

Overview

Period: September 2026 – November 2026

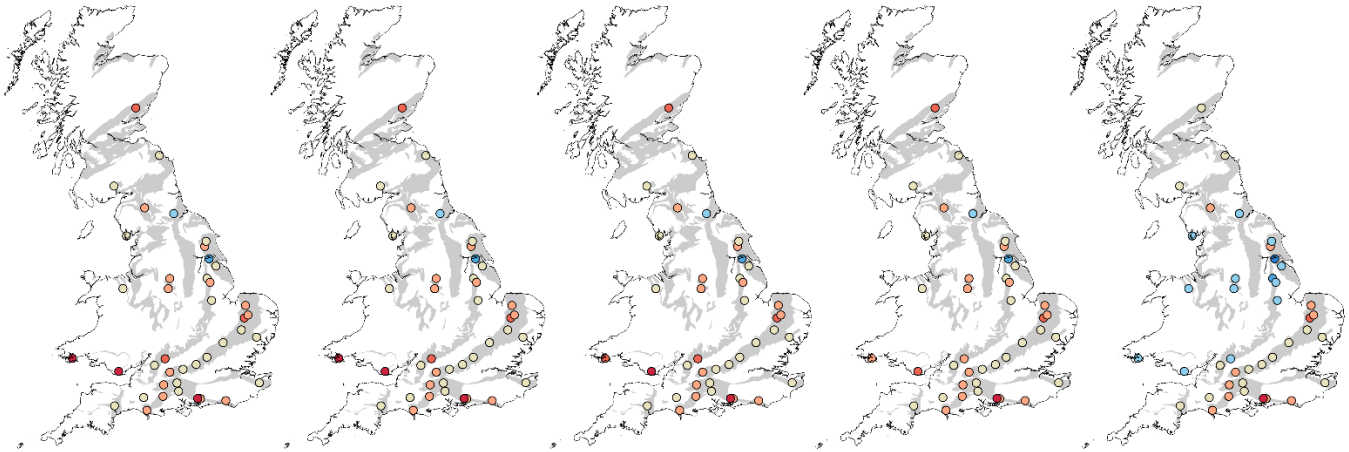
Issued on 07.09.2026 using data to the end of August

GROUNDWATER FROM CLIMATE FORECASTS

September 2026

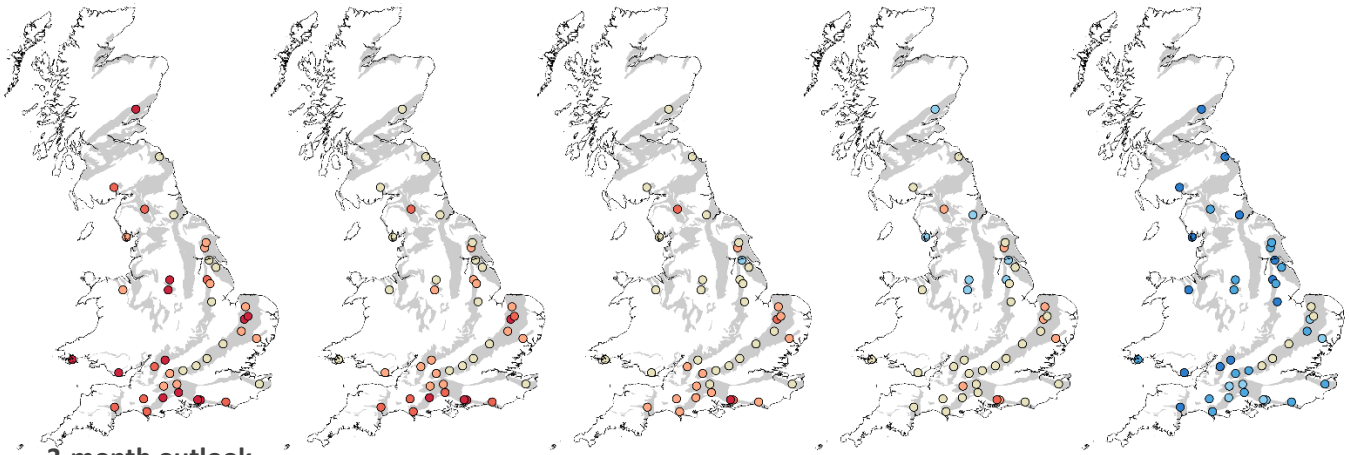
Under median rainfall conditions, groundwater levels in the Chalk are generally expected to be normal to below normal over the next month, although below to notably low levels may persist in parts of East Anglia, South Yorkshire and occasionally southern England. Sites in the southern Chalk in West Sussex and Carboniferous Limestones of South Wales may be within exceptionally low levels. Levels in the Permo-Triassic sandstones of England and southern Scotland are expected to be normal to notably low while those in the Jurassic limestones are expected to be normal to below normal. Over the next three months, groundwater conditions are forecast to begin to trend towards normal conditions. However, sites in the southern Chalk are expected to remain in below-normal conditions.

Lowest rainfall forecast | *1st quartile* | *Median* | *3rd quartile* | *Highest rainfall forecast*



1-month outlook

Lowest rainfall forecast | *1st quartile* | *Median* | *3rd quartile* | *Highest rainfall forecast*

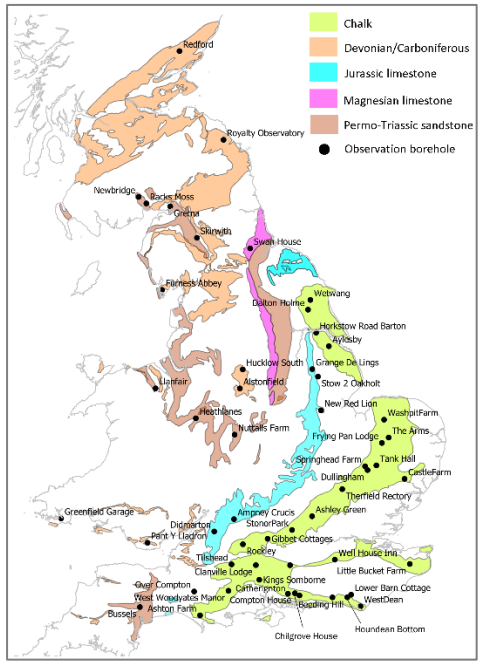


3-month outlook

These forecasts are produced by running five members of the Met Office ensemble climate forecast through groundwater models of observation borehole hydrographs at 42 sites across the country. The sites are distributed across the principal aquifers.

Based on the distribution of observed historical groundwater levels in a given month, seven categories have been derived for each site: very low, low, below normal, normal, above normal, high, and very high. The forecast groundwater level is assigned to one of these seven categories depending on where it falls within the distribution of the historically observed values.

Key	Percentile range of historic observed values for relevant month
Exceptionally high levels	> 95
Notably high levels	87-95
Above normal	72-87
Normal	28-72
Below normal	12-28
Notably low levels	5-13
Exceptionally low levels	< 5



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UK Centre for Ecology & Hydrology

British Geological Survey

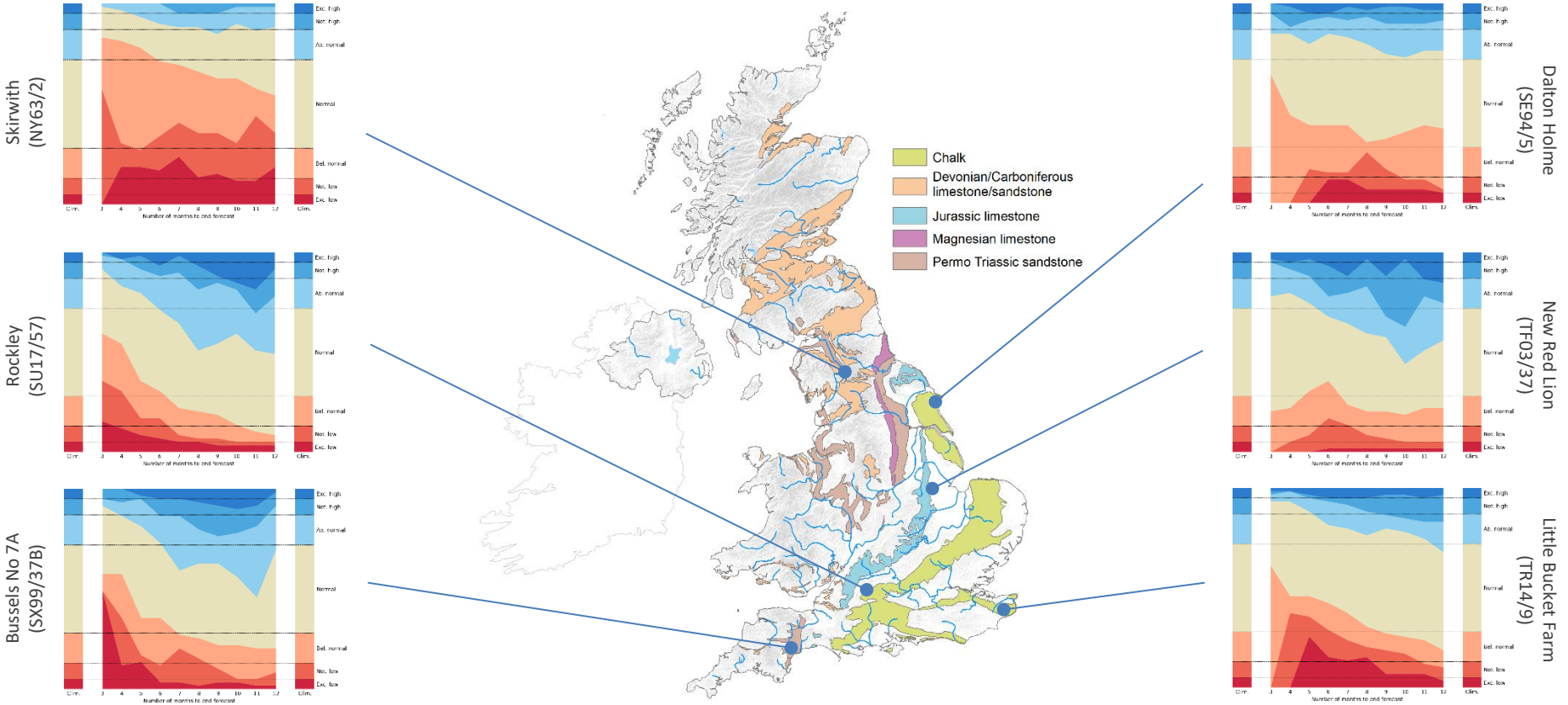
Environment Agency

Outlook based on modelled groundwater from historical climate

Period: September 2026 – August 2027

Issued on 07.09.2026 using data to the end of August

Groundwater levels in southern England (Bussels 7A, Rockley and Little Bucket Farm) are forecast to remain below normal to notably low over the next 6-8 months before recovering to normal to above normal over the next 12 months. Levels in the Jurassic limestone at New Red Lion are forecast to remain around normal for the next 6 months, before moving to wetter, above normal conditions. Levels in the Chalk at Dalton Holme are expected to remain normal to below normal for the next 12 months. In the Permo Triassic sandstone at Skirwirth, levels are forecast to remain normal to notably low for the next 12 months.



This outlook is based on monthly ensembles of historical sequences of observed climate (rainfall and potential evpotranspiration) that form input to hydrological models. The outputs are probabilistic simulations of the average groundwater level over the forecast horizon (3 to 12 months ahead), at each location.

The graphs show variation over time of the number of simulated groundwater levels in each monthly ensemble, that fall within each the seven categories: exceptionally low, notably low, below normal, normal, above normal, notably high and exceptionally high. The monthly variations can be compared to the long-term average distribution of levels, which are shown as columns on the left and right of each graph.

This outlook is based entirely on historical sequences and therefore does not contain any knowledge of the state of the atmosphere and ocean. It is hence possible that some of the historical sequences used might be inconsistent with current large-scale atmospheric conditions and would therefore be unlikely to occur in the next few months.

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