

Hydrological Summary

for the *United Kingdom*

General

May was showery and changeable through its first three weeks but was ultimately defined by an exceptional period of heat in the last 10 days. It was the joint seventh warmest May in the Central England Temperature series (from 1659) and a new May and spring temperature record was set at Kew Gardens on the 26th (35.1°C). At the national scale, UK rainfall was around three-quarters of average (78%). Soil Moisture Deficits (SMDs) climbed across almost all regions, and soils were the fourth driest May on record for England & Wales (in a series from 1961). Correspondingly, river flows were in the normal range to exceptionally low across most of the UK. Groundwater levels generally continued to decline with levels in the normal range to below. Reservoir stocks for England & Wales remained near-average, though stocks in some impoundments and groups dropped almost 10% relative to average, including Loch Katrine, Northern Command Zone and Wimbleball. May concludes another notably dry spring across large parts of England and Wales, demonstrating once again the pivotal role that the season can have for water resource prospects – although deficits are far less acute or widespread than in 2025, and current reservoir stocks and groundwater levels contribute to a healthier water resource position. A wet start to June has ameliorated immediate drought concerns at the start of the summer. However, forecasts suggest a drier, more settled end to June, and the latest Hydrological Outlook suggests that river flows in central and southern England are likely to be below normal over the summer as a whole.

Rainfall

The first three weeks of the month were changeable, with alternating fronts, ridges and showery troughs bringing predominantly sunny spells and showers, with occasional thunder and hail, though there were few notable rainfall totals. There was a notable cold spell from the 10th to 15th before temperatures started to increase on the 19th. By the 23rd, high pressure was established bringing dry, hot weather to month-end. Total May rainfall for the UK was 78% of average, with both England and Scotland recording below average rainfall (74% and 78%, respectively). Large parts of south-east England received less than half the average, with parts of East Anglia less than a third. At the regional scale, Anglian, Thames and Southern regions received 55% or less of average, whilst only Northumbrian and Yorkshire regions recorded above average May rainfall. Spring (Mar-May) rainfall was below average across most of the UK, with less than half the average across south-east England, and some localised patches less than a third of average. It was the third driest spring for Anglian region (39% of average) after 2011 and 1893 in a series from 1891. Over the longer-term, winter-spring rainfall (Dec-May) was above average in most regions, though for Scotland was 94% of average, with Highland region 15% below average for this period.

River flows

Recessions established in April continued into May but were interrupted early and mid-month in Wales and the south of England, and throughout the month in north-east England; though most peaked below or only just above average. New daily flow minima were set on the Deveron, Lagan and Waveney between the 25th and 31st. Daily outflows from the UK showed a similar pattern, with a continuing recession punctuated with a muted flow response mid-month. Mean May river flows were in the normal range to exceptionally low across the UK, with many rivers registering less than 60% of average. Notably and exceptionally low flows were clustered in eastern Scotland and south-east England, where the Deveron and Waveney recorded exceptionally low flows – both registering their second lowest May flows after 2025 (in series from 1961 and 1964, respectively). The English Tyne recorded 36% of the average May flow and ranked the fifth lowest in a long series from 1957. For the spring (Mar-May), flows in more catchments were in the normal range, though in eastern Britain

and the south-west, many catchments were below normal – the Deveron and Waveney notably so. Above normal flows were recorded in western Scotland and north-west England, in addition to some groundwater-dominated catchments (e.g. Lud and Itchen), where flows remain bolstered by the wet winter. Mean winter-spring (Dec 2025-May 2026) river flows were still dominated by the wet winter across most of the country with many notably high flows and some exceptionally high flows – including a new record for this period on the Kenwyn.

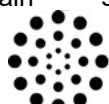
Soil moisture and groundwater

SMDs were above average almost all regions; Southern and Thames regions recorded the highest May SMDs in series from 1961. Average spring SMDs were the second highest on record for Southern and Wessex regions after 2025. At month-end, soils at most COSMOS-UK sites in central and southern England were drier than normal to exceptionally dry. In the Chalk of southern England, East Yorkshire and Lincolnshire, groundwater levels continued to recede, with most sites in the normal to below-normal range. Across East Anglia, levels began to decline, remaining within the normal to below range. Killyglen in Northern Ireland registered a record low for May (in a series from 1985). In the Jurassic Oolite, levels continued to decline, reaching the normal range at Ampney Crucis and New Red Lion. In the Magnesian Limestone levels decreased, returning to the normal range at Brick House Farm and remaining above normal at Aycliffe. In the Carboniferous Limestone levels continued to fall, with Pant y Lladron registering a record low for the second consecutive month (in a series from 1995). Groundwater levels in the Permo-Triassic sandstones were variable, but generally declined, with Skirwirth, Annan and Newbridge shifting to drier categories, while Bussels No 7a (despite ongoing recession) remained above normal, as a result of the late-winter recharge. In the Upper Greensand, levels at Lime Kiln Way declined but stayed exceptionally high. Levels in the Fell Sandstone at Royalty Observatory decreased but remained above normal. In the Devonian sandstones, levels continued to decline to below normal at Feddan Junction and to notably low at Easter Lathrisk, reflecting a limited recharge season and dry May conditions.

May 2026



National Hydrological
Monitoring Programme



UKCEH



British
Geological
Survey

Rainfall



Rainfall accumulations and return period estimates

Percentages are from the 1991-2020 average.

Region	Rainfall	May 2026	Mar26 – May26		Dec25 – May26		Sep25 – May26		Jun25 – May26	
				RP		RP		RP		RP
United Kingdom	mm	55	197		587		990		1202	
	%	78	86	2-5	103	2-5	109	10-15	104	5-10
England	mm	42	112		454		775		917	
	%	74	65	10-15	110	2-5	117	10-15	106	2-5
Scotland	mm	70	327		752		1234		1549	
	%	78	107	2-5	94	2-5	98	2-5	99	2-5
Wales	mm	70	221		761		1356		1595	
	%	80	79	2-5	105	2-5	117	10-20	110	5-10
Northern Ireland	mm	72	221		637		1087		1337	
	%	97	94	2-5	113	10-15	123	>>100	116	40-60
England & Wales	mm	46	127		496		854		1009	
	%	75	68	8-12	109	2-5	117	10-20	107	2-5
North West	mm	71	251		640		1183		1482	
	%	95	106	2-5	104	2-5	120	50-80	116	15-25
Northumbria	mm	57	154		434		783		941	
	%	101	86	2-5	102	2-5	115	10-15	104	2-5
Severn-Trent	mm	48	112		442		750		858	
	%	82	67	5-10	117	5-10	125	15-25	108	2-5
Yorkshire	mm	63	144		438		799		930	
	%	114	84	2-5	107	2-5	123	10-20	108	2-5
Anglian	mm	20	50		264		477		576	
	%	43	39	50-80	94	2-5	104	2-5	92	2-5
Thames	mm	28	64		367		594		701	
	%	52	43	25-40	105	2-5	106	2-5	97	2-5
Southern	mm	28	66		450		725		863	
	%	55	43	25-40	113	5-10	112	5-10	106	2-5
Wessex	mm	36	89		547		853		964	
	%	60	49	20-35	123	8-12	120	8-12	107	2-5
South West	mm	52	148		798		1250		1448	
	%	74	62	8-12	126	10-20	125	15-25	116	10-15
Welsh	mm	67	210		738		1308		1537	
	%	79	78	2-5	106	2-5	118	15-25	110	5-10
Highland	mm	84	430		834		1374		1748	
	%	80	116	5-10	85	2-5	91	2-5	94	2-5
North East	mm	52	176		530		828		1007	
	%	75	83	2-5	108	2-5	102	2-5	95	2-5
Tay	mm	57	280		805		1202		1466	
	%	69	103	2-5	114	5-10	109	8-12	106	5-10
Forth	mm	50	223		571		949		1183	
	%	68	93	2-5	93	2-5	99	2-5	96	2-5
Tweed	mm	41	197		507		840		1069	
	%	63	94	2-5	97	2-5	101	2-5	99	2-5
Solway	mm	66	312		792		1355		1701	
	%	74	104	2-5	101	2-5	109	10-20	109	10-15
Clyde	mm	81	371		869		1488		1878	
	%	79	103	2-5	90	2-5	99	2-5	100	2-5

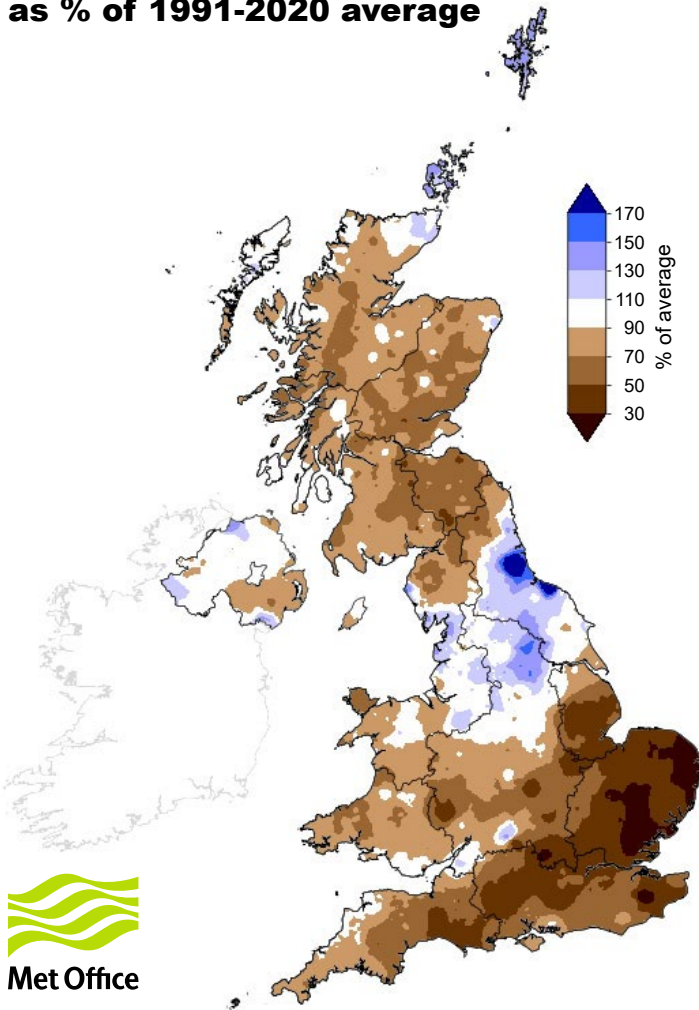
% = percentage of 1991-2020 average

RP = Return period

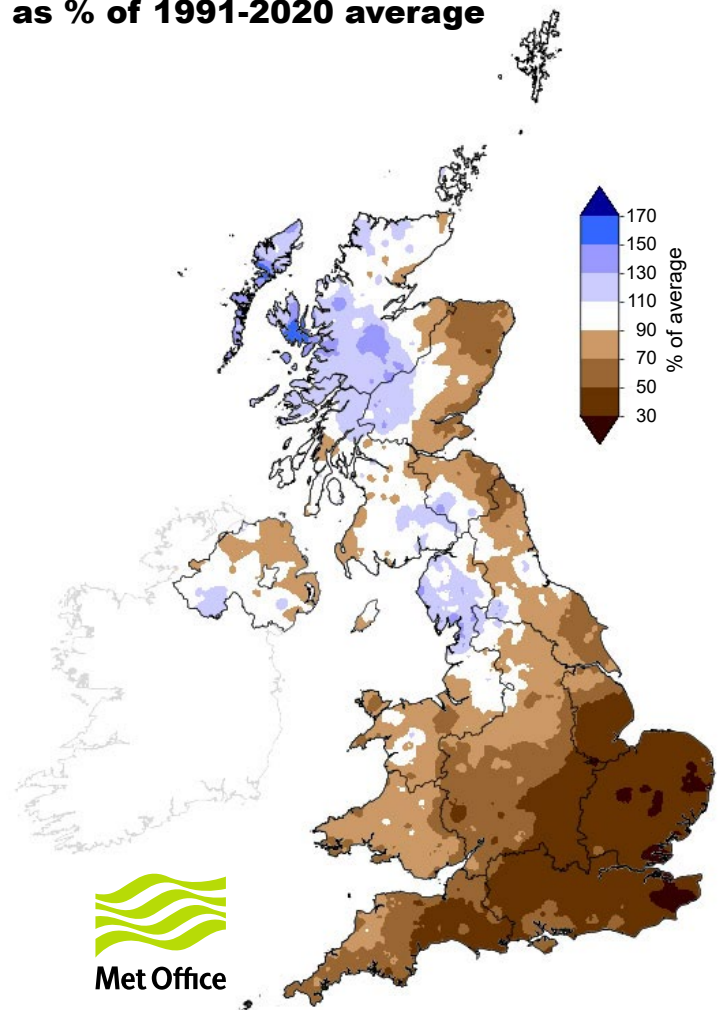
Important note: Figures in the above table may be quoted provided their source is acknowledged. Where appropriate, specific mention must be made of the uncertainties associated with the return period estimates. The RP estimates are based on data provided by the Met Office and reflect climatic variability since 1890; they also assume a stable climate. The quoted RPs relate to the specific timespans only; for the same timespans, but beginning in any month the RPs would be substantially shorter. The timespans featured do not purport to represent the critical periods for any particular water resource management zone. For hydrological or water resources assessments of drought severity, river flows and/or groundwater levels normally provide a better guide than return periods based on regional rainfall totals. Note that precipitation totals in winter months may be underestimated due to snowfall undercatch. All monthly rainfall totals since January 2025 are provisional. Source: Data from HadUK-Grid dataset at 1km resolution v1.3.1.0.

Rainfall

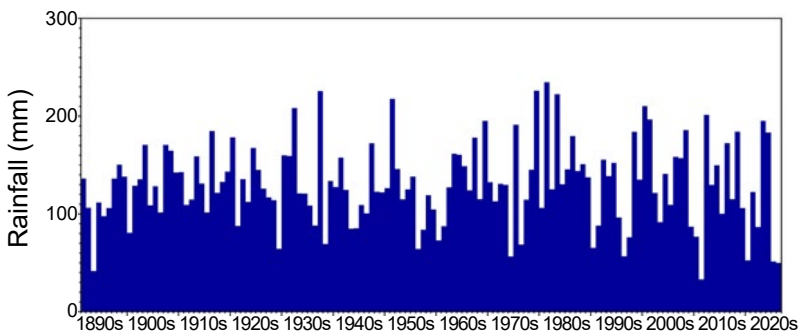
**May 2026 rainfall
as % of 1991-2020 average**



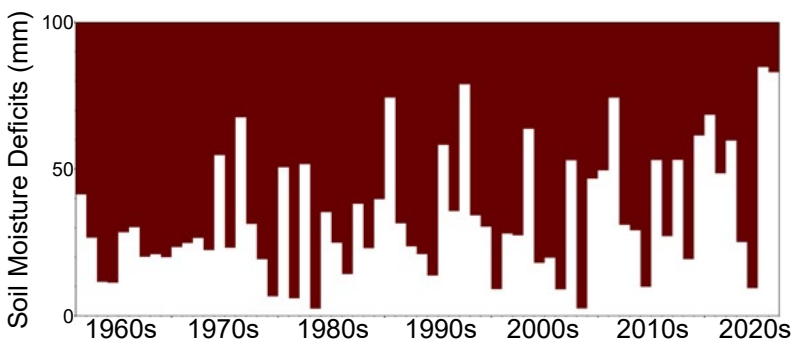
**March 2026 - May 2026 rainfall
as % of 1991-2020 average**



Spring (March-May) rainfall for Anglian region



Spring (March-May) SMDs for Southern region



UK Hydrological Outlook

The Hydrological Outlook provides an insight into future hydrological conditions across the UK. Specifically it describes likely trajectories for river flows and groundwater levels on a monthly basis, with particular focus on the next three months.

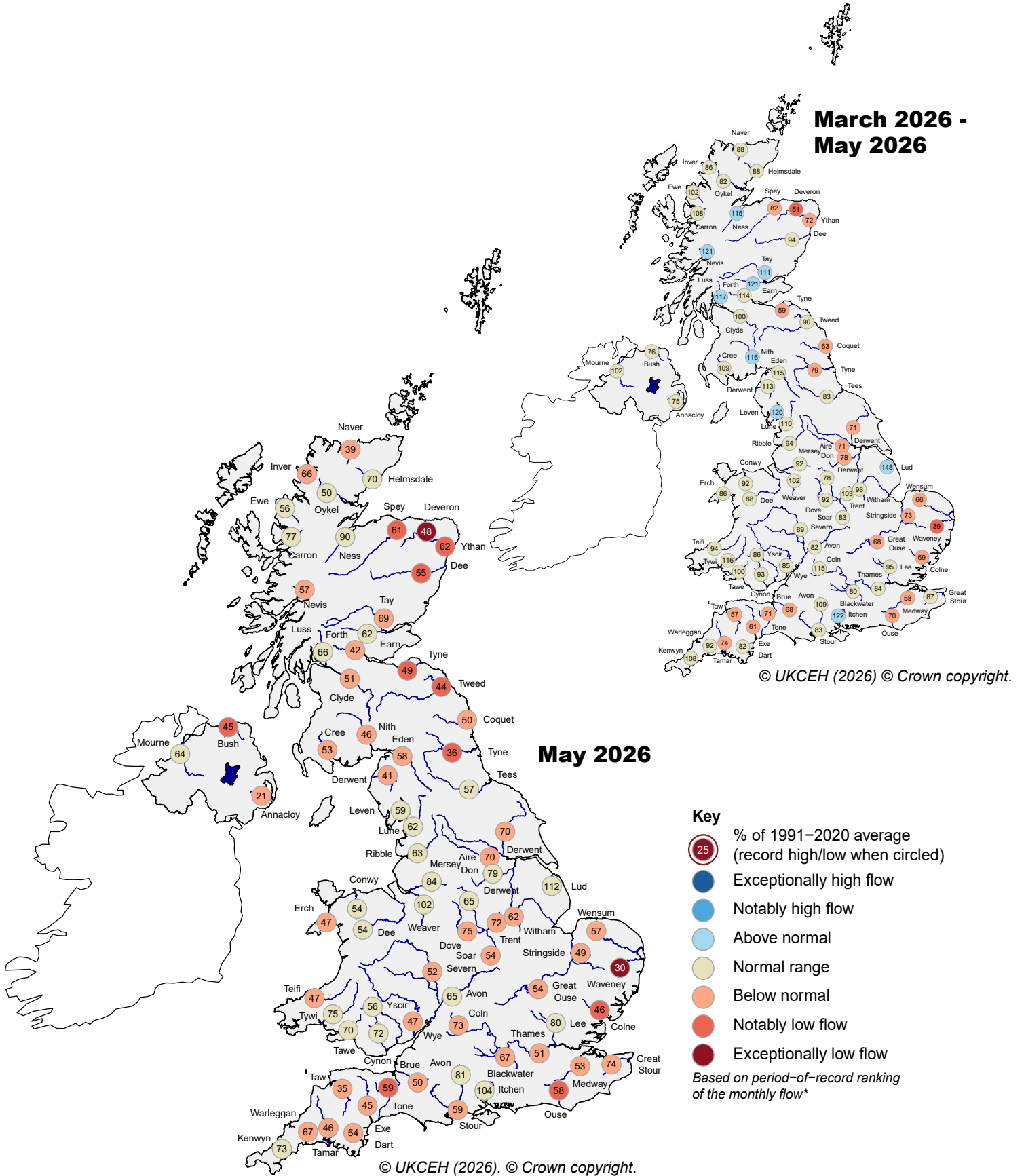
The complete version of the Hydrological Outlook UK can be found at: www.hydoutuk.net/latest-outlook/

Period: from June 2026
Issued: 08.06.2026
using data to the end of May 2026

The outlook for June indicates below normal river flows in central and southern England, with flows in eastern Scotland likely to be normal to below normal. Flows in north-west Britain are likely to be normal. Below normal river flows in central and southern England are likely to persist through June-August, while for the rest of the UK, river flows are likely to be normal. Groundwater levels are likely to remain normal to above normal in most areas.

River flow

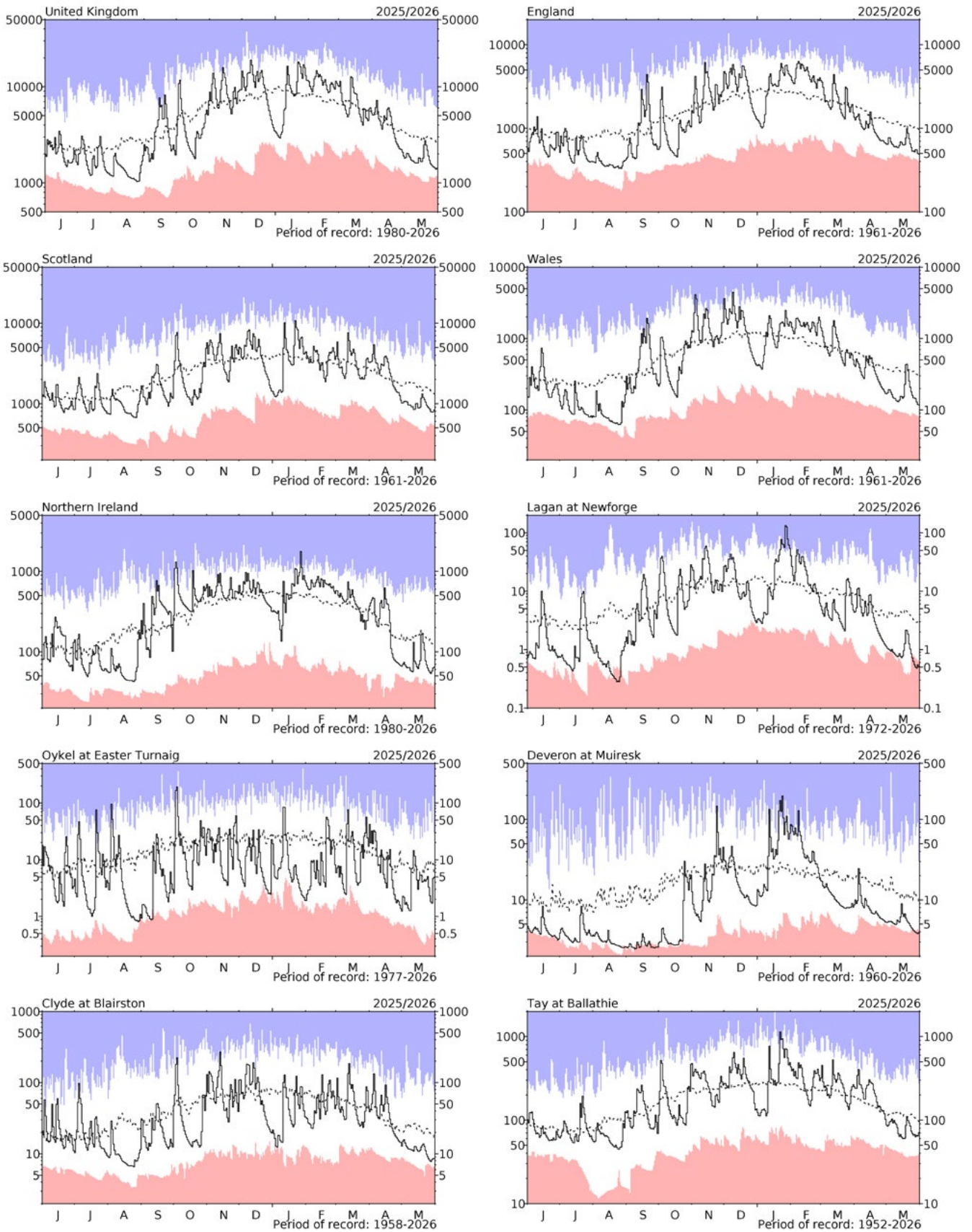
March 2026 - May 2026



River flows

*Comparisons based on percentage flows alone can be misleading. A given percentage flow can represent extreme drought conditions in permeable catchments where flow patterns are relatively stable but be well within the normal range in impermeable catchments where the natural variation in flows is much greater. The categories of the spots are based on the full period-of-record data whereas the percentages are based on the 1991-2020 averaging period for consistency between rainfall and river flows. Percentages may be omitted where flows are under review.

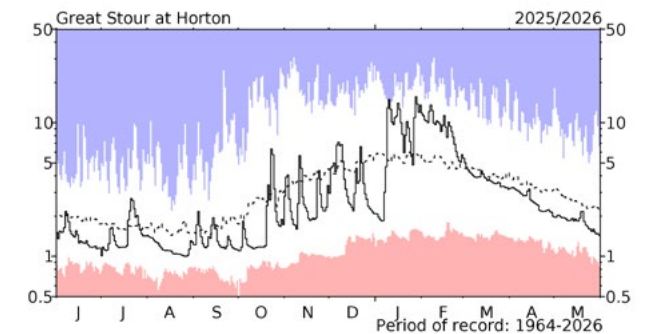
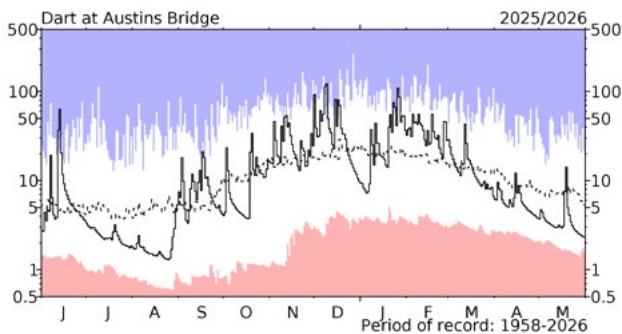
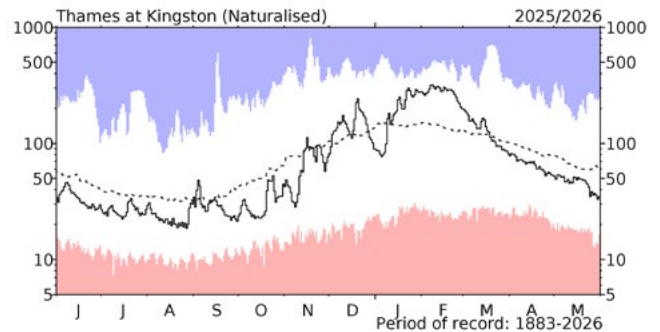
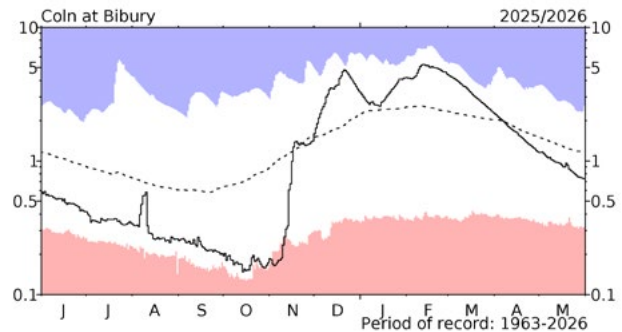
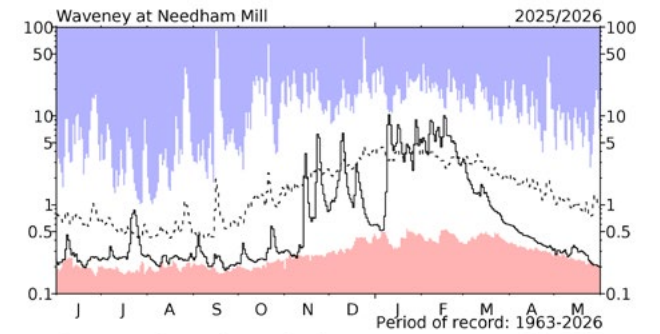
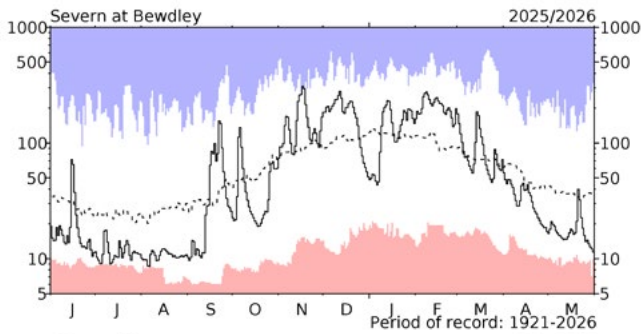
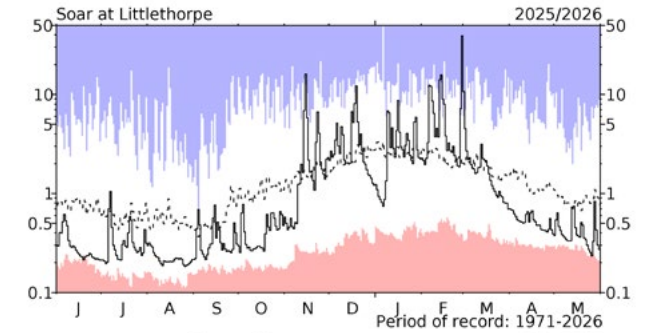
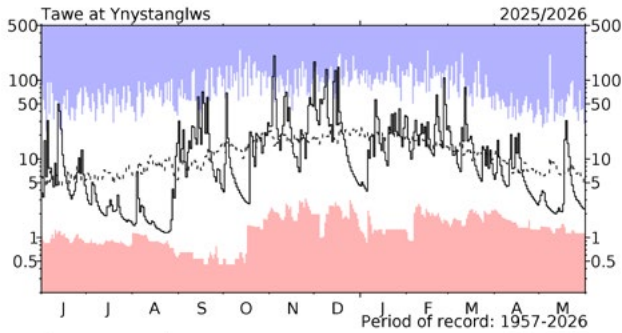
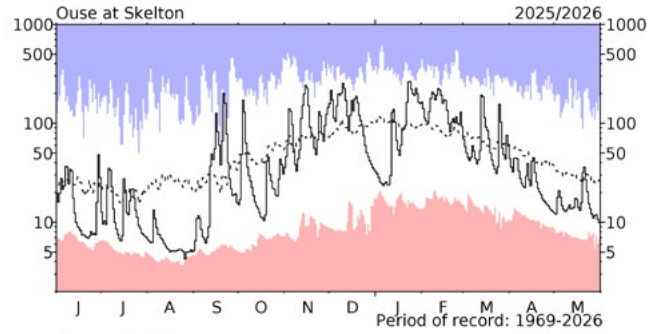
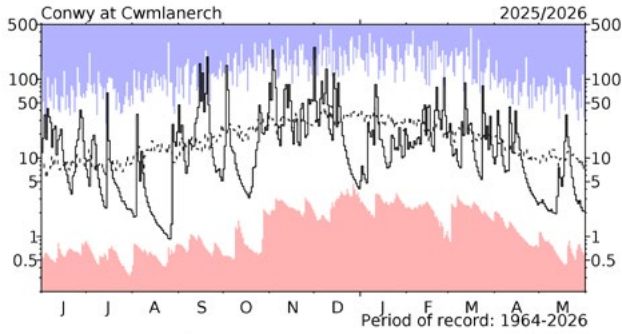
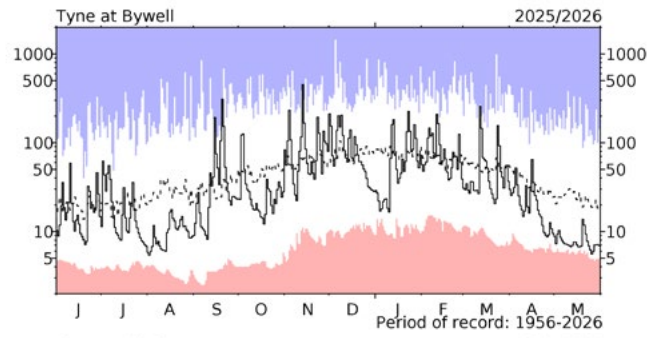
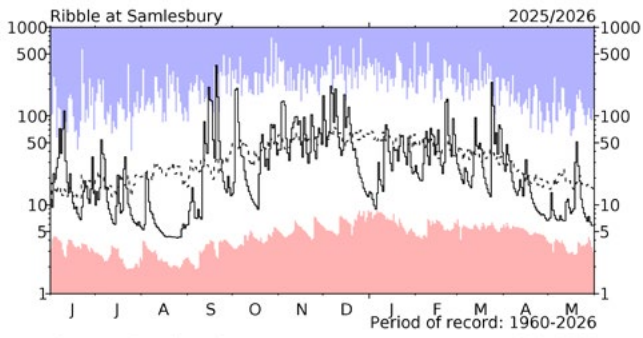
River flow



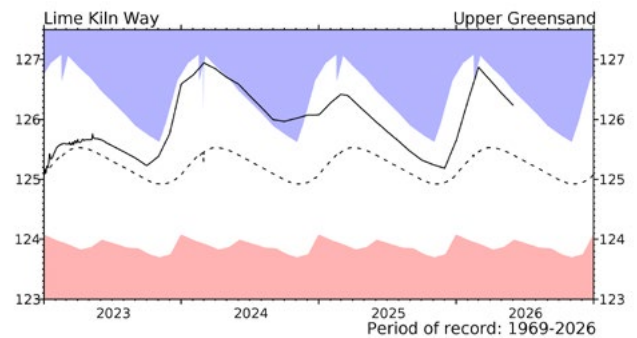
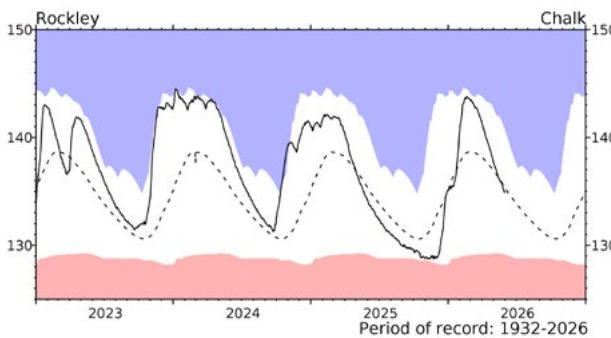
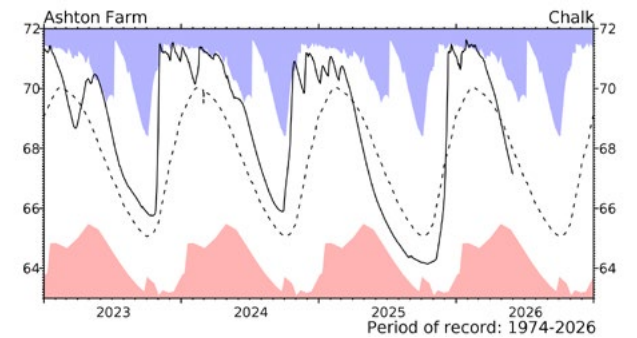
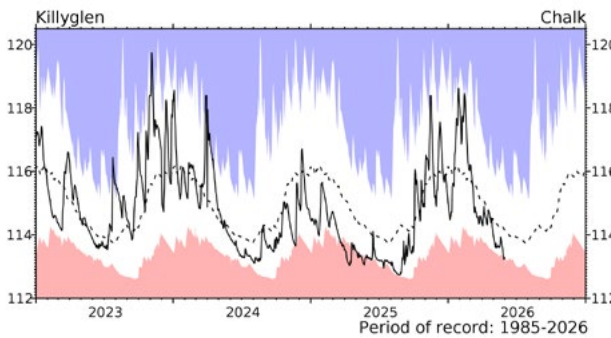
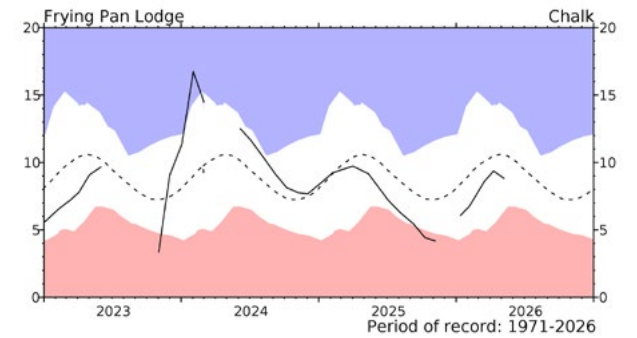
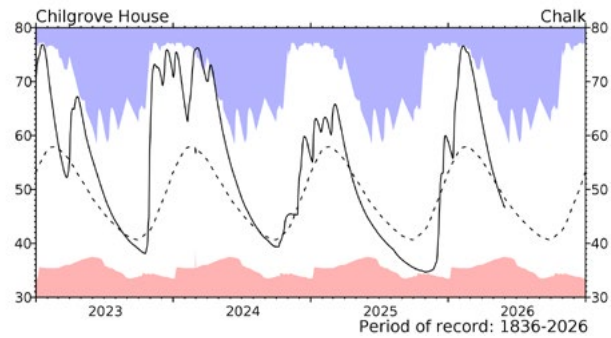
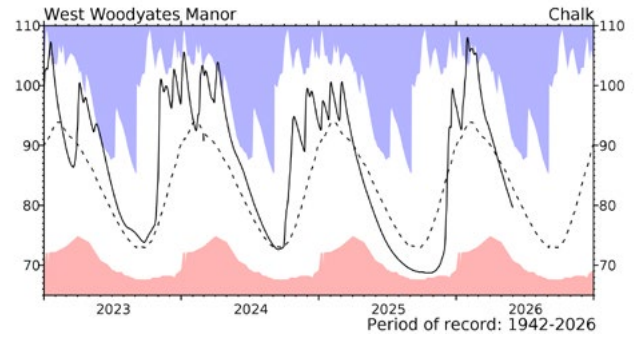
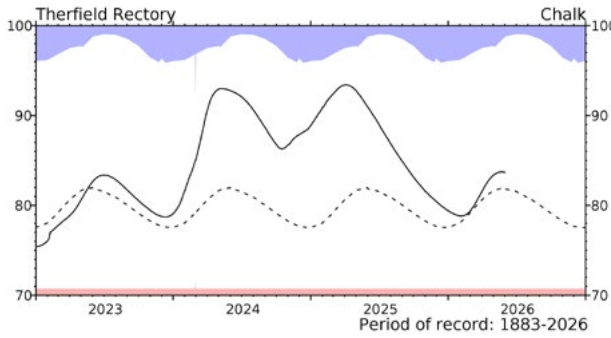
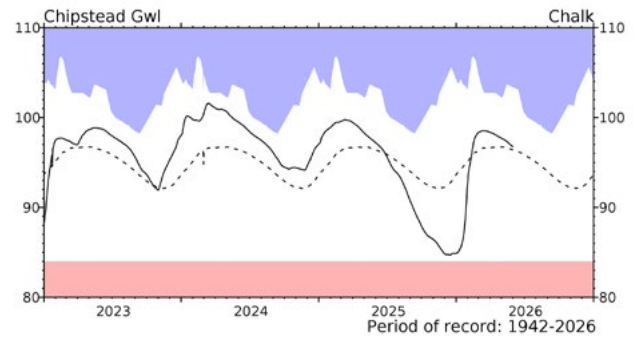
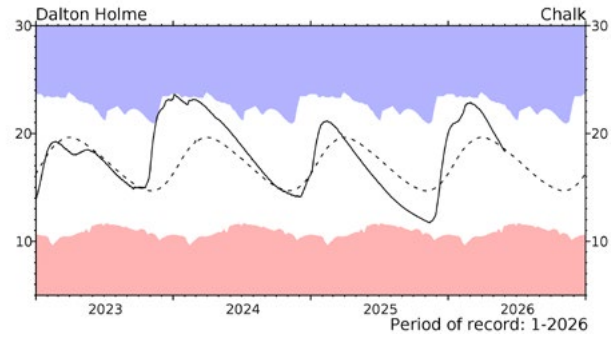
River flow hydrographs

*The river flow hydrographs show the daily mean flows (measured in m³s⁻¹) together with the maximum and minimum daily flows prior to June 2025 (shown by the shaded areas). Daily flows falling outside the maximum/minimum range are indicated where the bold trace enters the shaded areas. The dashed line represents the period-of-record average daily flow.

River flow

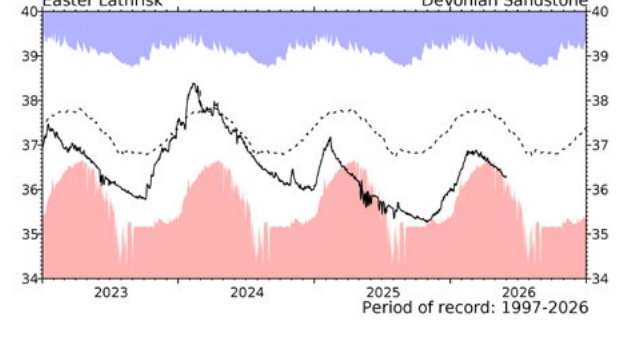
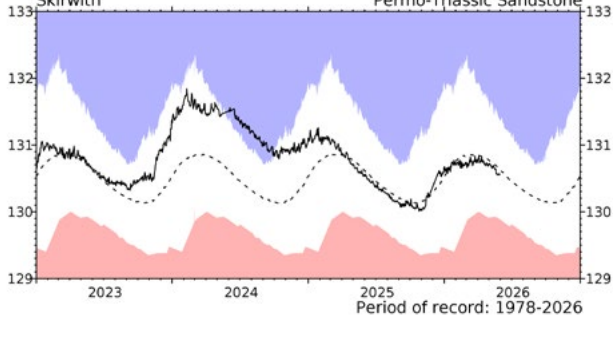
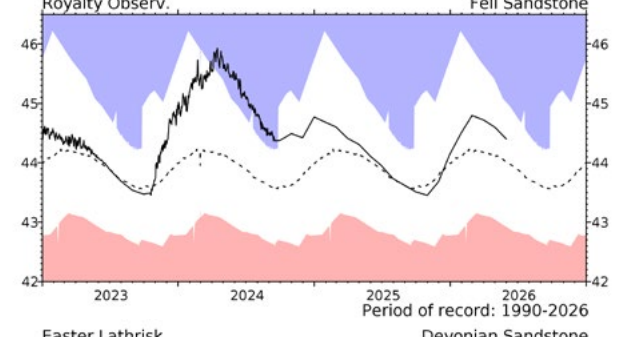
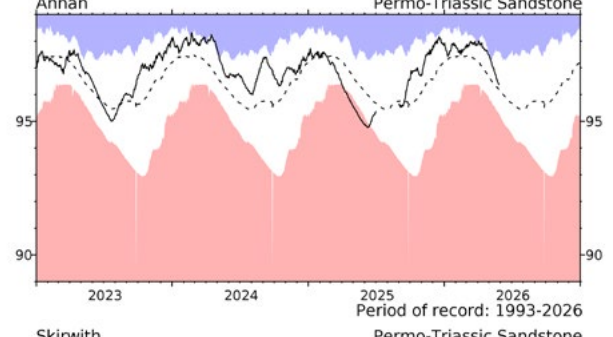
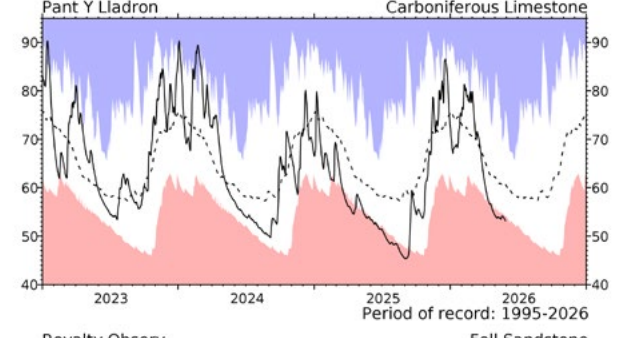
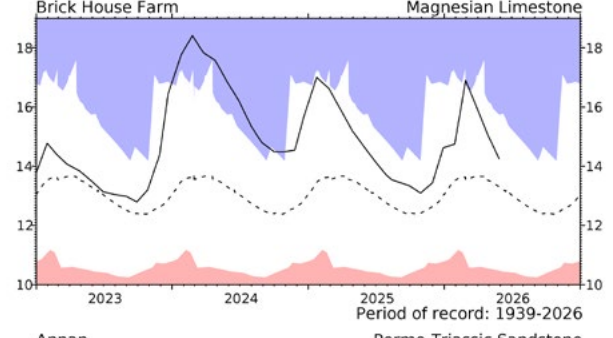
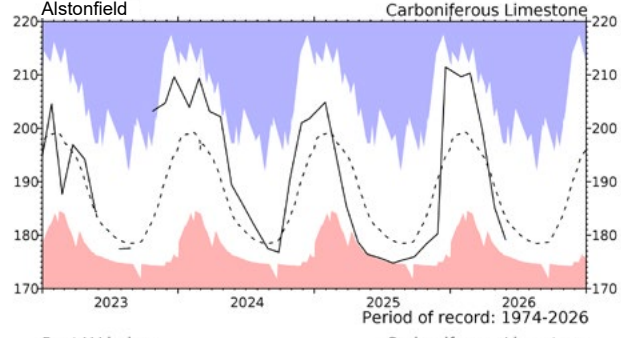
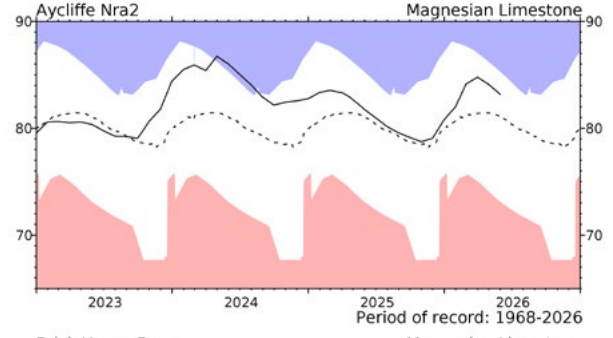
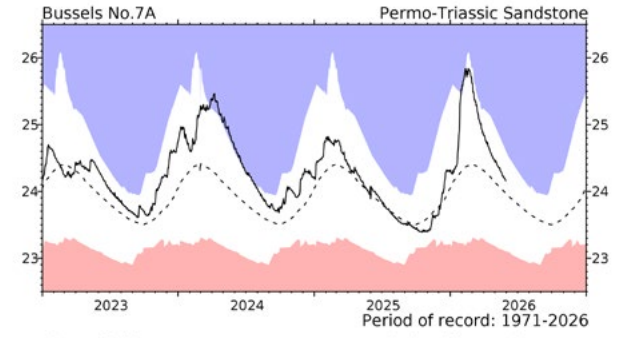
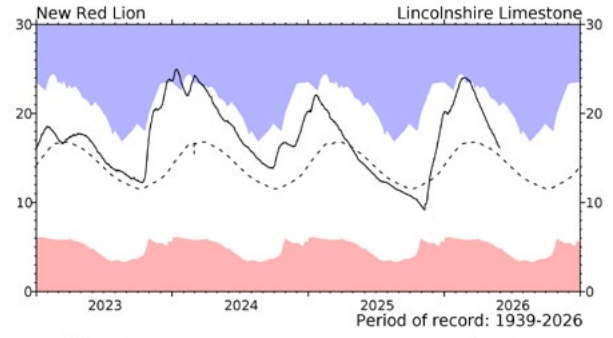
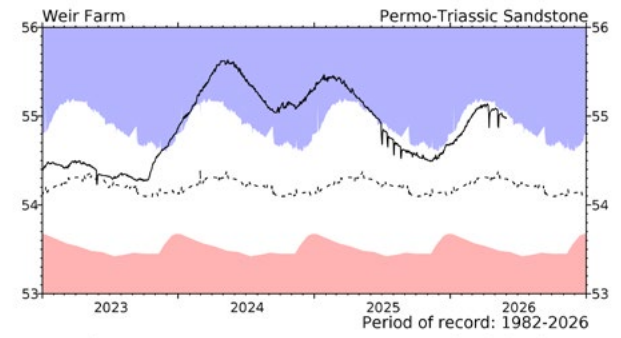
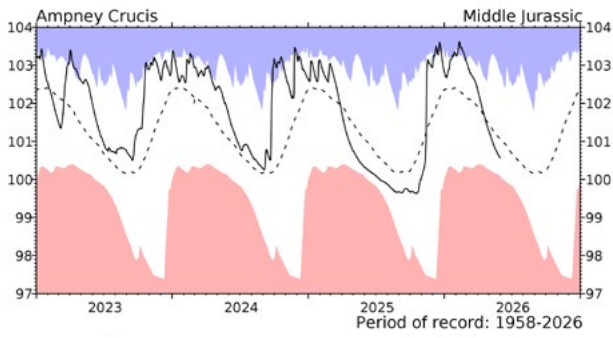


Groundwater

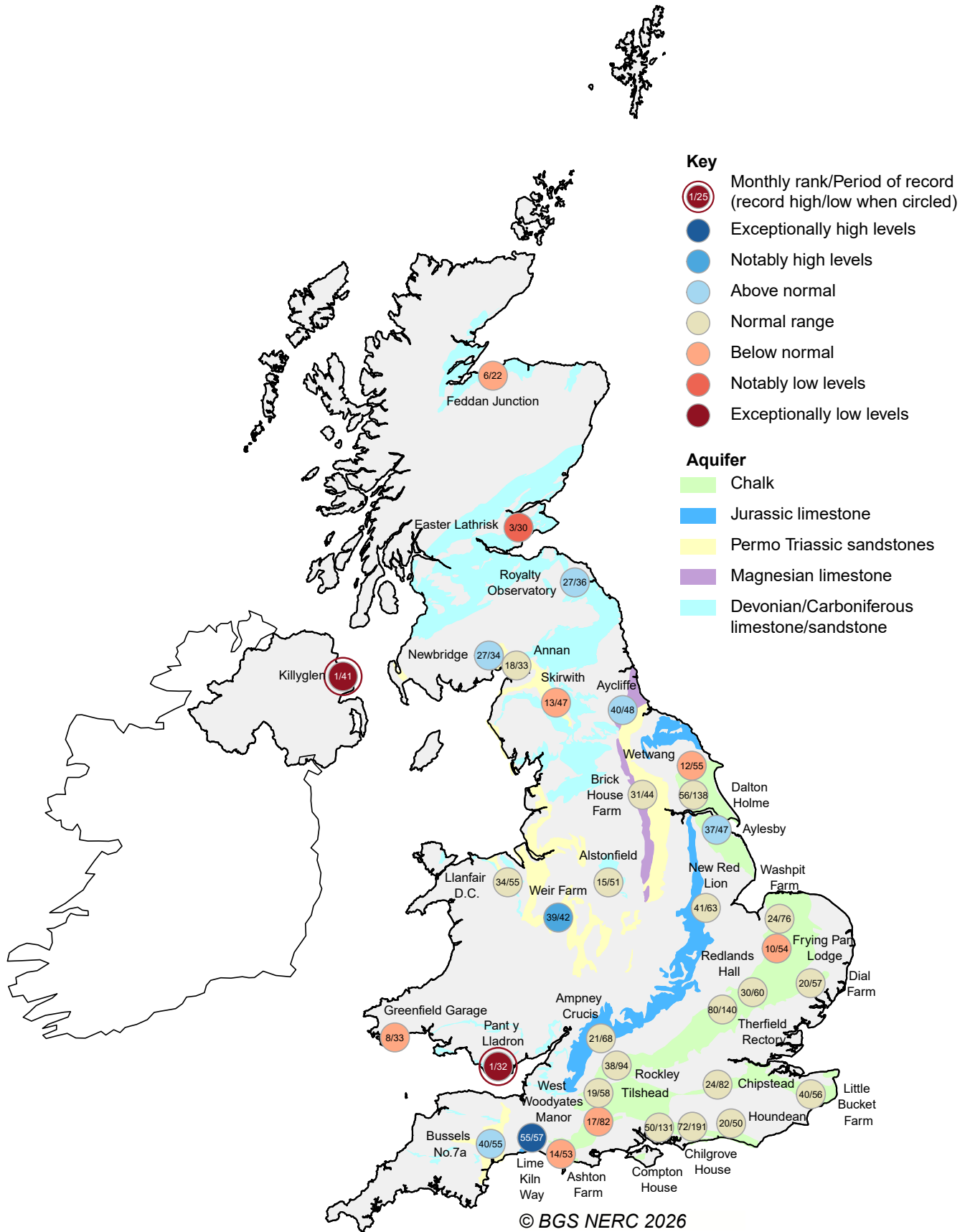


Groundwater levels (measured in metres above ordnance datum) normally rise and fall with the seasons, reaching a peak in the spring following replenishment through the winter (when evaporation losses are low and soil moist). They decline through the summer and early autumn. This seasonal variation is much reduced when the aquifer is confined below overlying impermeable strata. The monthly mean and the highest and lowest levels recorded for each month are calculated with data from the start of the record to the end of 2022. Note that most groundwater levels are not measured continuously and, for some index wells, the greater frequency of contemporary measurements may, in itself, contribute to an increased range of variation.

Groundwater



Groundwater

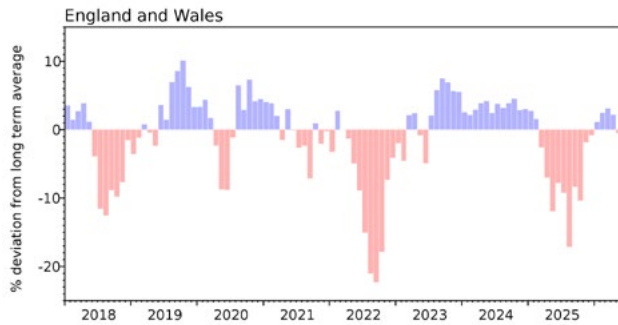


Groundwater levels - May 2026

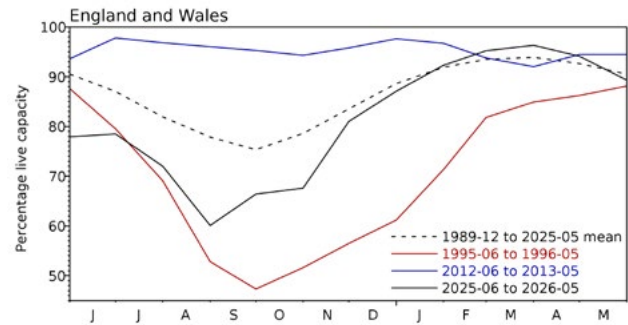
The calculation of ranking has been modified from that used in summaries published prior to October 2012. It is now based on a comparison between the most recent level and levels for the same date during previous years of record. Where appropriate, levels for earlier years may have been interpolated. The rankings are designed as a qualitative indicator, and ranks at extreme levels, and when levels are changing rapidly, need to be interpreted with caution.

Reservoirs

Guide to the variation in overall reservoir stocks for England and Wales



Comparison between overall reservoir stocks for England and Wales in recent years



Percentage live capacity of selected reservoirs at end of month

Area	Reservoir	Capacity (MI)	2026 Mar	2026 Apr	2026 May	May Anom.	Min May	Year* of min	2025 May	Diff 26-25
North West	N Command Zone •	124929	100	96	80	1	47	2025	47	33
	Vyrnwy	55146	100	98	96	7	69	1984	83	14
Northumbrian	Teesdale •	87936	99	90	80	-5	62	2020	69	10
	Kielder (199175)		93	92	92	0	81	2025	81	11
Severn-Trent	Clywedog	49936	97	99	99	2	83	1989	93	6
	Derwent Valley •	46692	99	90	85	-1	56	1996	65	20
Yorkshire	Washburn •	23373	98	91	88	2	67	2025	67	21
	Bradford Supply •	40942	99	92	82	-2	56	2025	56	26
Anglian	Grafham (55490)		85	88	88	-6	72	1997	91	-3
	Rutland (116580)		95	96	94	2	75	1997	89	5
Thames	London •	202828	94	94	91	-3	83	1990	93	-3
	Farmoor •	13822	99	98	99	1	90	2002	99	-1
Southern	Bewl	31000	99	97	90	2	57	1990	82	8
	Ardingly	4685	100	100	96	-2	88	2022	89	7
Wessex	Clatworthy	5662	99	90	81	-6	67	1990	76	5
	Bristol •	(38666)	97	93	86	-3	70	1990	78	8
South West	Colliford	28540	92	88	81	-4	52	1997	79	2
	Roadford	34500	100	95	89	5	48	1996	90	-1
	Wimbleball	21320	99	91	78	-13	74	2011	83	-5
	Stithians	4967	100	92	85	-3	66	1990	94	-9
Welsh	Celyn & Brenig •	131155	95	93	89	-6	72	2025	72	17
	Brienne	62140	100	100	100	6	76	2022	81	19
	Big Five •	69762	99	97	91	2	70	1990	75	16
	Elan Valley •	99106	100	95	90	-2	70	2025	70	20
		97223	98	97	90	0	52	1998	80	10
Scotland(E)	Edinburgh/Mid-Lothian •	9317	99	98	91	-6	79	2025	79	12
	East Lothian •	110326	96	93	80	-6	66	2001	72	8
Scotland(W)	Loch Katrine •	22494	100	95	85	-2	69	2020	73	12
	Daer	10721	100	93	82	-8	70	2020	79	3
	Loch Thom									
Northern Ireland	Total* •	56800	96	95	87	2	69	2008	82	6
	Silent Valley •	20634	99	99	89	6	56	2000	87	2

() figures in parentheses relate to gross storage

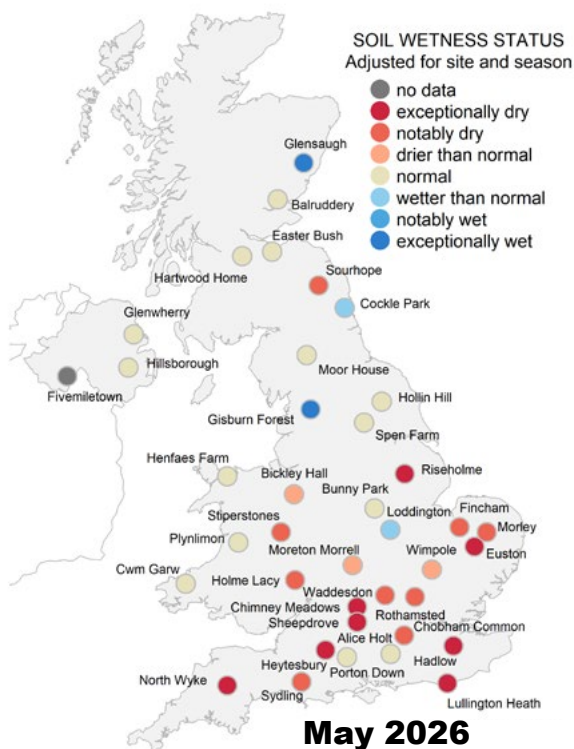
• denotes reservoir groups

*last occurrence

* excludes Lough Neagh

Details of the individual reservoirs in each of the groupings listed above are available on request. The percentages given in the Average and Minimum storage columns relate to the 1988-2012 period except for West of Scotland and Northern Ireland where data commence in the mid-1990s. In some gravity-fed reservoirs (e.g. Clywedog) stocks are kept below capacity during the winter to provide scope for flood attenuation purposes. Monthly figures may be artificially low due to routine maintenance or turbidity effects in feeder rivers.

Soil Moisture



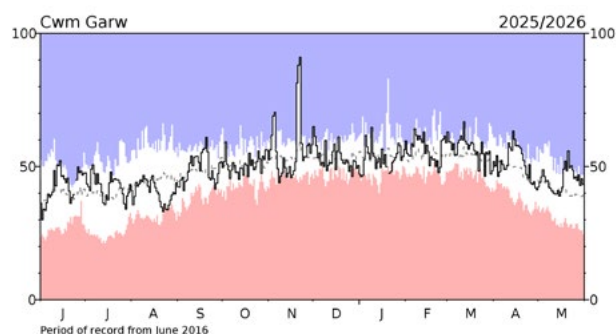
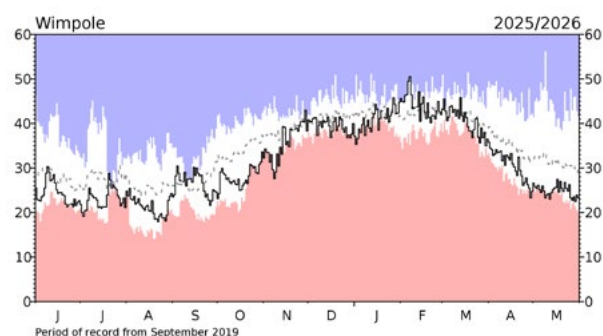
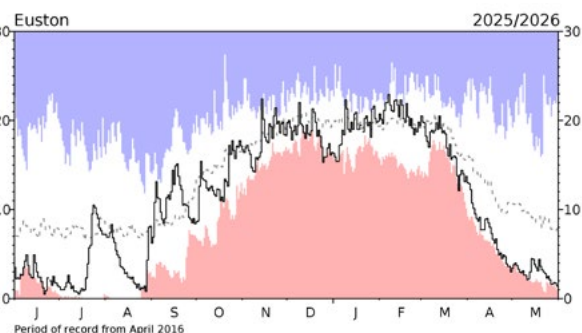
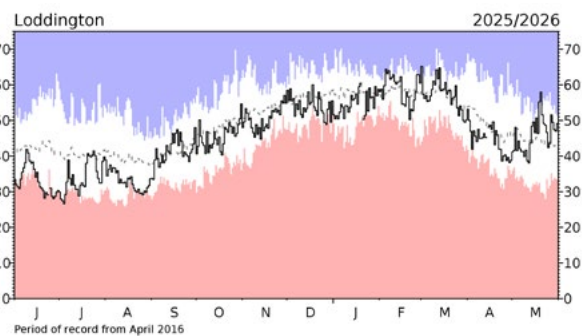
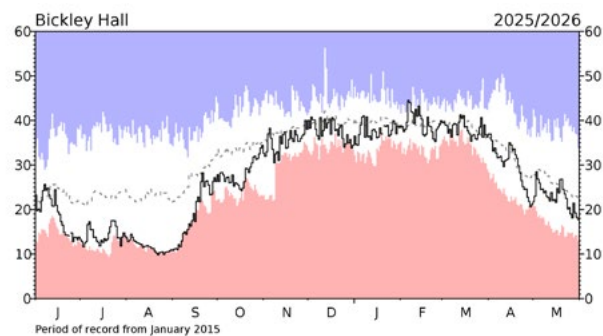
Daily mean soil moisture status at COSMOS-UK sites on the last day of the month 31 May 2026. Soil wetness categories are adjusted for site specific characteristics, i.e. taking account of the possible range of soil wetness at each site, determined through period-of-record data and hindcast modelling. Where no data are available on the last day of the month, these are shown by grey dots.

Significant precipitation at the beginning of the month saw many sites begin to recover soil moisture, however this was not enough to reverse the drying trend, with low precipitation and the record-breaking heatwave in the second half of May pushing most sites into the “dry” category of soil wetness. Wimpole recorded its driest May on record at 24.9% water content, and Euston became the first site this year to be categorised as “extremely dry”. On the other hand, Loddington, Glensaugh, and Cwm Garw were the only sites to become significantly wetter.

The record-breaking early heatwave and below-average precipitation this month prevented any recovery of soil moisture across much of the network, and as such, the drying trend has continued.

Soil moisture data

These data are from UKCEH’s COSMOS-UK network. The time series graphs show volumetric water content as a percentage in black together with the maximum and minimum daily values for the period-of-record of the sites. The dashed line represents the period-of-record mean VWC. For more information visit cosmos.ceh.ac.uk.



NHMP

The National Hydrological Monitoring Programme (NHMP) was started in 1988 and is undertaken jointly by the [UK Centre for Ecology & Hydrology](#) (UKCEH) and the [British Geological Survey](#) (BGS). The NHMP aims to provide an authoritative voice on hydrological conditions throughout the UK, to place them in a historical context and, over time, identify and interpret any emerging hydrological trends. Hydrological analysis and interpretation within the Programme is based on the data holdings of the [National River Flow Archive](#) (NRFA; maintained by UKCEH) and [National Groundwater Level Archive](#) (NGLA; maintained by BGS), including rainfall, river flows, groundwater levels, soil moisture and reservoir stocks.

The Hydrological Summary is supported by the Natural Environment Research Council award number NE/Y006208/1 as part of the NC-UK programme delivering National Capability.

Data Sources

The NHMP depends on the active cooperation of many data providers. This cooperation is gratefully acknowledged. A location map of all sites used in the Hydrological Summary can be found on the [NHMP website](#).

River flow and groundwater level data are provided by the Environment Agency (EA), Natural Resources Wales - Cyfoeth Naturiol Cymru (NRW), the Scottish Environment Protection Agency (SEPA) and, for Northern Ireland, the Department for Infrastructure - Rivers and the Northern Ireland Environment Agency. River flow data are subject to revision following an annual validation process by the National River Flow Archive; high and low flows may be subject to significant revision.

Month-end soil moisture data is provided by COSMOS-UK for a network of 40 sites across the UK, the longest records of which extend back to 2013. COSMOS-UK data should be considered provisional until annual publication. More information about individual COSMOS-UK sites, data and measurements can be found on the [COSMOS-UK website](#).

National and regional soil moisture may also be mentioned and plotted in the Hydrological Summary and other NHMP outputs. These data are provided by the Meteorological Office Rainfall and Evaporation Calculation System (MORECS). MORECS provides estimates of monthly soil moisture deficit in the form of averages over 40 x 40 km grid squares over Great Britain and Northern Ireland. The monthly time series of data extends back to 1961.

Rainfall data are provided by the Met Office. To allow better spatial differentiation the rainfall data for Britain are presented for the regional divisions of the precursor organisations of the EA, NRW and SEPA. The areal rainfall figures have been produced by the Met Office National Climate Information Centre (NCIC), and are based on the HadUK-Grid 1km resolution gridded data from rain gauges. The majority of the full rain gauge network across the UK is operated

by the EA, NRW, SEPA and Northern Ireland Water; supplementary rain gauges are operated by the Met Office. The Met Office NCIC monthly rainfall series extend back to 1836 and form the official source of UK areal rainfall statistics which have been adopted by the NHMP. The gridding technique used is described in Hollis, 2019 available at <https://doi.org/10.1002/gdj3.78>

Given the sparser rain gauge network in the early record and to maintain consistency with previous Hydrological Summaries and NHMP analyses, the NHMP uses rainfall data from 1890 to present in its analyses. Long-term averages are based on the period 1991-2020 and are derived from the monthly areal series.

The regional figures for the current month in the Hydrological Summaries are based on a limited rain gauge network so these (and the associated return periods) should be regarded as a guide only.

The monthly rainfall figures are provided by the Met Office NCIC and are Crown Copyright and may not be passed on to, or published by, any unauthorised person or organisation. These are provisional totals calculated from a sub set of Met Office registered gauges and will be subject to change once data from the complete network of Met Office registered gauges has been quality assured and gridded within the annual process of updating the HadUK-Grid dataset.

For further details on rainfall or MORECS data, please contact the Met Office:

Tel: 0370 900 0100

Email: enquiries@metoffice.gov.uk

Enquiries

Enquiries should be directed to the NHMP:
Email: nhmp@ceh.ac.uk

Enquiries about COSMOS-UK soil moisture data should be directed to COSMOS-UK:
Email: cosmos@ceh.ac.uk

A full catalogue of past Hydrological Summaries can be accessed and downloaded at:

<http://nrfa.ceh.ac.uk/monthly-hydrological-summary-uk>

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