

Hydrological Summary

for the *United Kingdom*

General

August was dominated by hot and dry weather, although more unsettled conditions brought rain towards month-end. An exceptional heatwave impacted England and Wales between the 10th and 14th, with amber heat alerts issued. Total August rainfall for the UK was below average; in parts less than two-thirds of average. River flows were generally below normal to exceptionally low across eastern Scotland, England and Wales, but in the normal range and above in western Scotland. Despite rainfall at month-end, soil moisture at many COSMOS-UK sites remained well below field capacity, with some remaining notably dry. Groundwater levels continued their seasonal recession, with most sites in the normal range to notably low. Reservoir stocks for England & Wales were 61% of average, stocks in most impoundments decreased relative to average, some substantially so. Record August lows were reached at Wimbleball and the East Lothian group (in series from 1987), with Ardingly and Clywedog also well below average (35% and 38% below, respectively). Much of eastern Scotland was in moderate to severe scarcity all month, whilst by the end of August all of England and Wales was in prolonged dry weather or drought status. Restrictions on water use affected 30 million people, agricultural abstractions reduced and ecological impacts included increasing numbers of algal blooms and dead fish events. Despite some rain at month-end and into the start of September, the significant deficits established over the spring and summer in many areas will require prolonged wet weather to recover. The Hydrological Outlook indicates that below normal river flows are likely to continue in the south and east throughout Autumn but are likely to be normal to above normal elsewhere.

Rainfall

High pressure dominated the first half of August, bringing warm, dry and settled conditions, although low pressure around the 5th brought showers to northern areas, including a locally intense thunderstorm over eastern Scotland. The extended dry spell in the south (which began in June) was broken by frontal incursions from the 15th, bringing cooler weather, showers and thunderstorms, some causing surface-water flooding in northern areas. A hot, humid spell later in the month led to further thunderstorms before Atlantic fronts brought fresher weather and spells of rain. August rainfall was generally below average across the UK (with pockets of northern England, south Wales and south-east England receiving less than half the average) except for north-west Scotland and a band from the Mersey to the North Yorkshire and north Norfolk coasts. Total August rainfall was 81% of average for the UK, and substantially below average in Wales and the Wessex, Thames and Southern regions, which all saw less than two-thirds of average. It was the driest July-August for the Thames region (where some parts recorded less than a third of average), the third driest for Wales, and the Anglian region registered its fourth driest Spring-Summer (March-August) on record, all from a series starting 1890. In the longer England & Wales Precipitation series, total Spring-Summer rainfall was the eighth lowest on record (in a series from 1766).

River Flows

River flows continued to decline in most areas over the first half of the month, before exhibiting some recovery. In Scotland, rainfall at the start of August led to widespread flow responses. These continued throughout August in the west but recovery paused mid-month in the east before resuming towards month-end. Several catchments in eastern Scotland, south Wales and East Anglia exhibited prolonged periods of consecutive daily flow minima throughout August, including twenty-one days on the Wye. Daily outflows from the UK were well below average for most of August; for England & Wales the August mean outflows were the third lowest in a series from 1961. Monthly mean flows were generally below normal or lower in August. A new record low was set on the Wye (in a series from 1936). Exceptionally low

flows were recorded in rivers across East Anglia, the Thames, the Hampshire Avon, and in parts of Wales and Devon. The Erch and the Taw recorded their second lowest August flows since 1976 (in series from 1973 and 1959, respectively), and many catchments registered monthly-mean flows less than 20% of average (e.g. the Lune, Teifi and Stringsides). Over the summer (June-August), the Ewe and Carron registered new record high flows (in series from 1970 and 1979, respectively), but elsewhere seasonal-mean flows were largely below normal; the Erch registered a new record low (in a series from 1973).

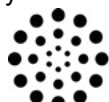
Soil Moisture and Groundwater

Soils continued to dry over the first part of the month before beginning to recover towards month-end. In many areas Soil Moisture Deficits remained, especially in southeast England and East Anglia. Groundwater levels across the country continued their seasonal recession, but at a slower rate than previous months. In the Chalk, levels were variable but remained seasonally low and were generally in the normal range to notably low; in August, Frying Pan Lodge, Chipstead and Tilshead all moved to notably low. Groundwater levels in the Jurassic Oolites continued their typical summer recession despite being above normal earlier this year with both sites remaining in the normal and below normal range. Similarly, levels in the Magnesian Limestone continued to decline seasonally, though Aycliffe and Brick House Farm both remained in the normal range. Groundwater levels in the Carboniferous limestone were close to reaching record lows before levels began to rise in these rapidly responding karstic aquifers. Levels in the Permo-Triassic Sandstone were generally in the normal to above range, except at Skirwirth, which remained below normal following limited winter recharge. Levels have continued to recede in the Upper Greensand (Lime Kiln Way) and Fell Sandstone (Royalty Observatory), but due to the substantial winter recharge only fell to notably high and remained in the normal range, respectively. At Feddan Junction and Easter Lathrisk in the Devonian sandstone, levels remained below normal and notably low respectively, likely owing to limited winter recharge.

August 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	Aug 26	Jun26 – Aug26	Mar26 – Aug26	Dec25 – Aug26	Sep25 – Aug26
			RP	RP	RP	RP
United Kingdom	mm	76	197	394	793	1203
	%	81	78 5-10	82 5-10	96 2-5	104 5-10
England	mm	59	133	245	589	914
	%	78	64 8-12	65 25-40	95 2-5	106 2-5
Scotland	mm	104	300	627	1076	1568
	%	87	95 2-5	101 2-5	96 2-5	100 5-10
Wales	mm	72	179	400	945	1550
	%	65	59 10-20	69 20-30	92 2-5	106 5-10
Northern Ireland	mm	84	247	468	884	1331
	%	85	91 2-5	93 2-5	106 5-10	115 80-120
England & Wales	mm	60	139	266	638	1001
	%	76	63 10-15	66 25-40	95 2-5	106 2-5
North West	mm	92	227	478	869	1413
	%	83	77 2-5	90 2-5	96 2-5	110 10-15
Northumbria	mm	57	140	294	574	924
	%	70	61 10-15	72 10-20	88 2-5	102 2-5
Severn-Trent	mm	67	127	239	569	884
	%	96	63 5-10	65 20-30	98 2-5	110 5-10
Yorkshire	mm	73	133	278	575	942
	%	95	61 8-12	71 10-20	92 2-5	108 5-10
Anglian	mm	53	106	156	372	593
	%	87	62 8-12	52 60-90	82 5-10	94 2-5
Thames	mm	28	97	161	466	692
	%	45	58 10-15	51 50-80	90 2-5	95 2-5
Southern	mm	41	114	180	565	844
	%	64	68 5-10	56 30-50	100 2-5	103 2-5
Wessex	mm	42	117	206	664	977
	%	58	60 8-12	55 40-60	104 2-5	108 2-5
South West	mm	66	162	310	967	1419
	%	70	64 5-10	63 20-30	109 5-10	113 8-12
Welsh	mm	71	175	384	918	1496
	%	65	60 10-20	68 20-30	93 2-5	107 5-10
Highland	mm	141	388	818	1259	1805
	%	108	115 2-5	115 10-15	96 2-5	98 2-5
North East	mm	74	185	361	730	1033
	%	81	73 5-10	78 8-12	98 2-5	97 2-5
Tay	mm	75	214	494	1028	1450
	%	70	73 2-5	88 2-5	103 2-5	104 5-10
Forth	mm	78	228	451	807	1206
	%	77	81 2-5	87 2-5	90 2-5	97 2-5
Tweed	mm	64	183	380	698	1045
	%	68	71 5-10	81 2-5	89 2-5	96 2-5
Solway	mm	81	266	578	1083	1659
	%	63	79 2-5	91 2-5	97 2-5	105 8-12
Clyde	mm	113	369	740	1276	1908
	%	77	97 2-5	100 2-5	95 2-5	101 5-10

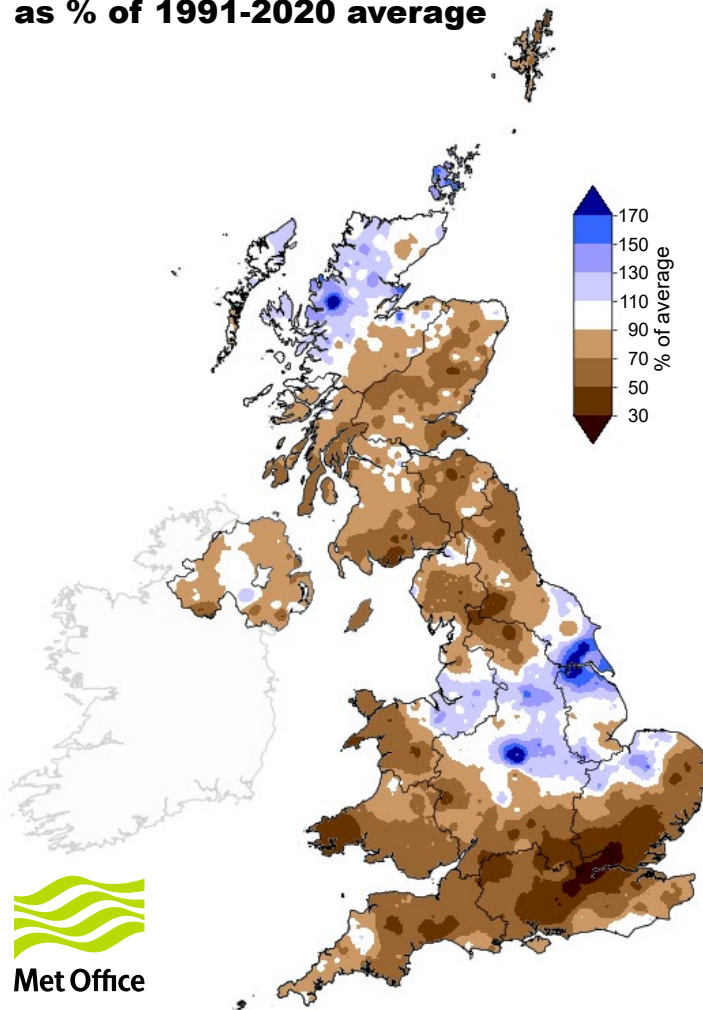
% = percentage of 1991-2020 average

RP = Return period

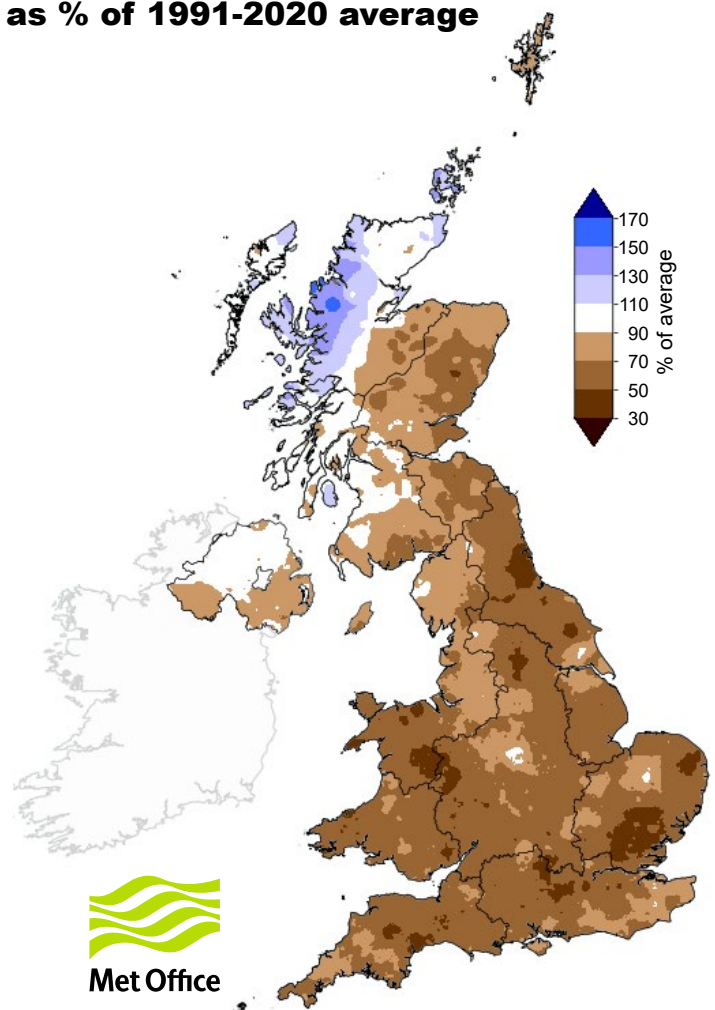
Important note: Figures in the above table may be quoted provided their source is acknowledged. Where appropriate, specific mention must be made of the uncertainties associated with the return period estimates. The RP estimates are based on data provided by the Met Office and reflect climatic variability 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 v1.3.2.0.

Rainfall

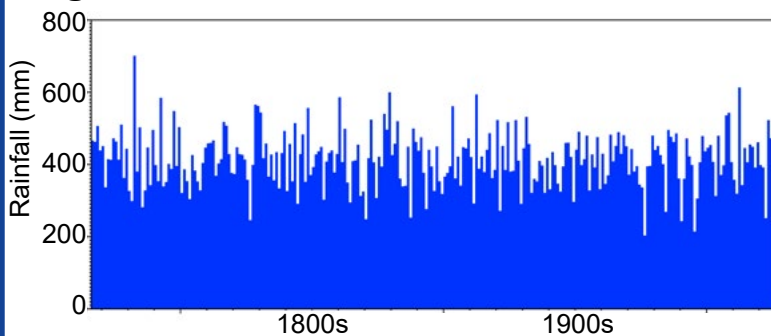
**August 2026 rainfall
as % of 1991-2020 average**



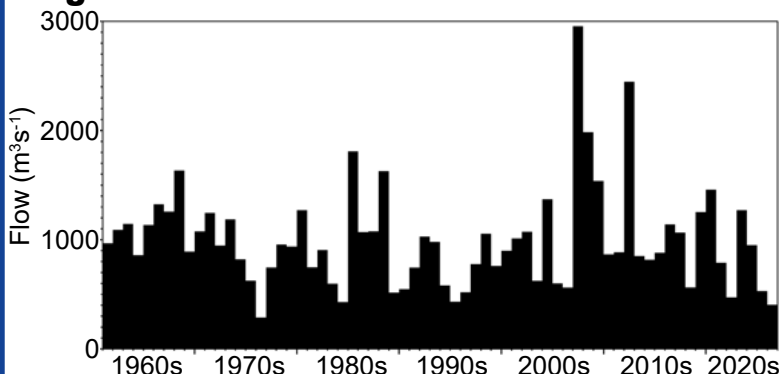
**June 2026 - August 2026 rainfall
as % of 1991-2020 average**



**March - August total rainfall for
England & Wales**



**July - August mean outflows for
England & Wales**



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.

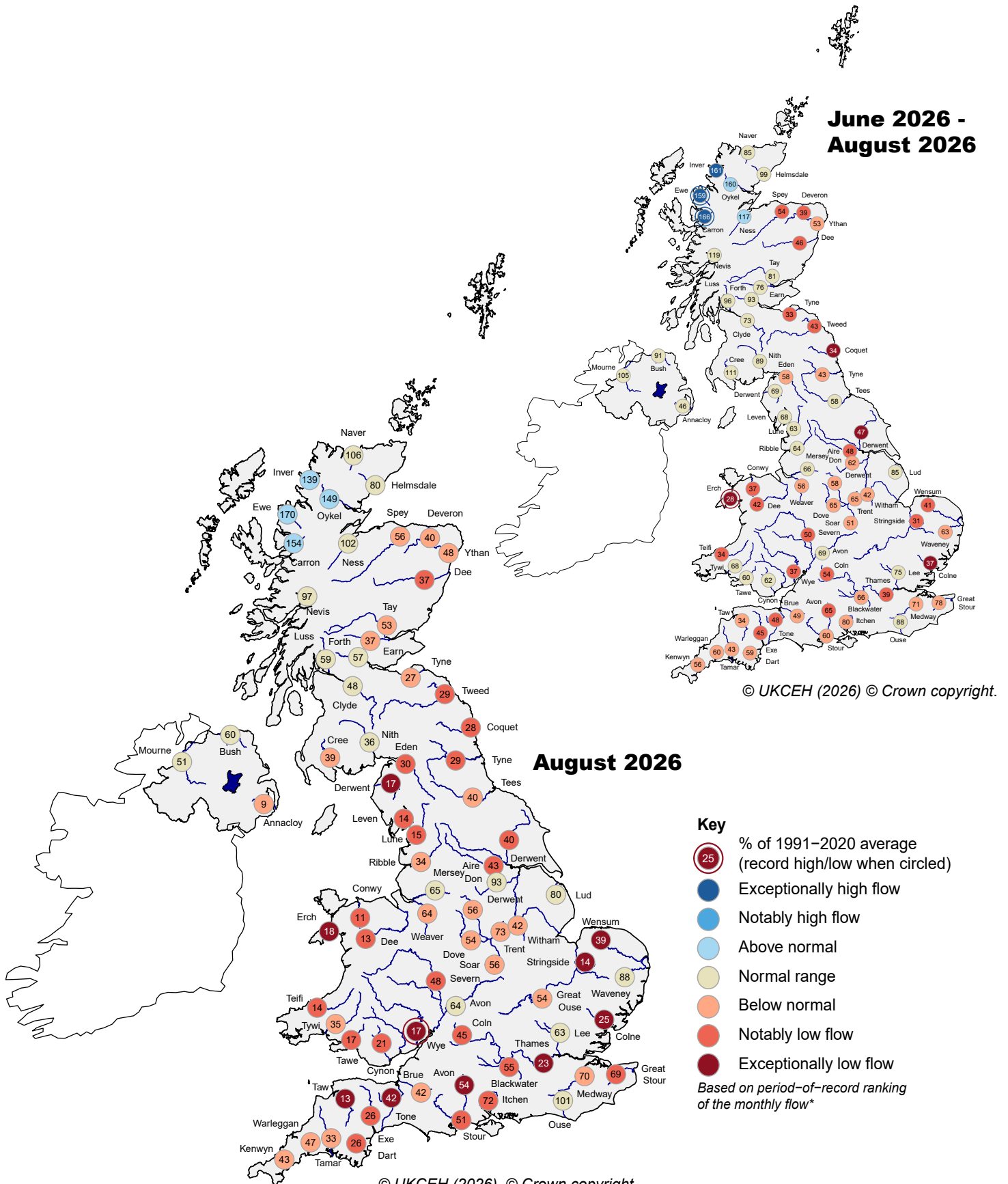
The complete version of the Hydrological Outlook UK can be found at: www.hydoutuk.net/latest-outlook/

Period: from September 2026
Issued: 09.09.2026
using data to the end of August 2026

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.

River flow

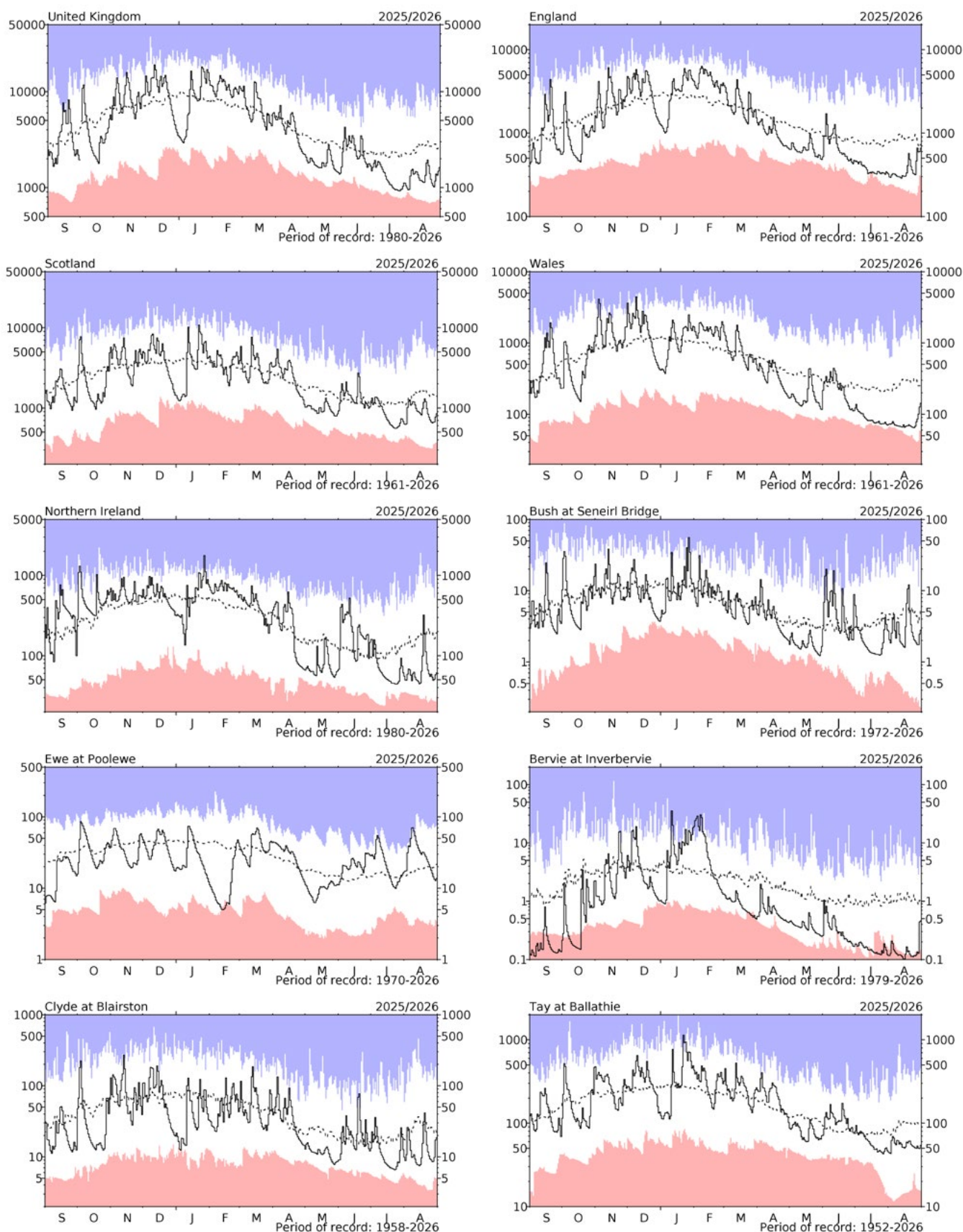
**June 2026 -
August 2026**



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.

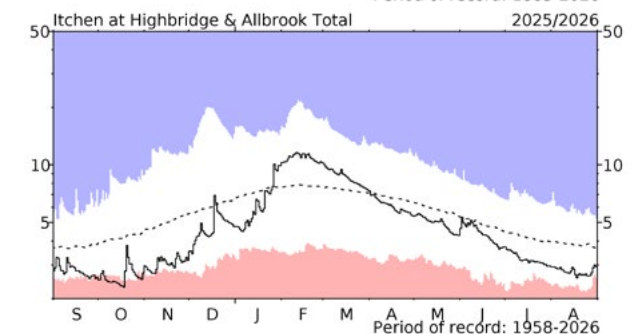
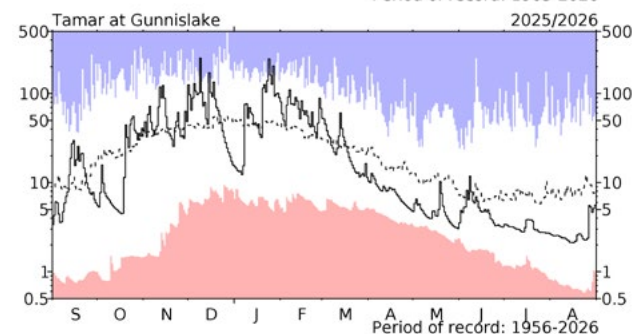
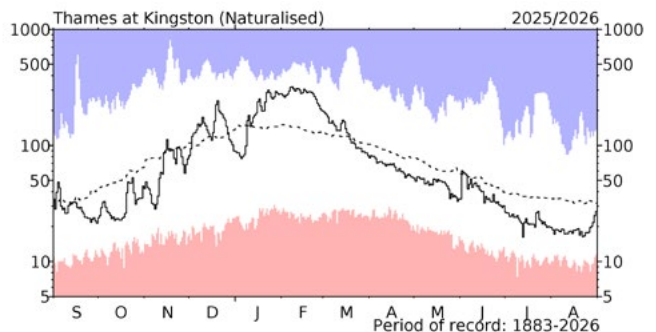
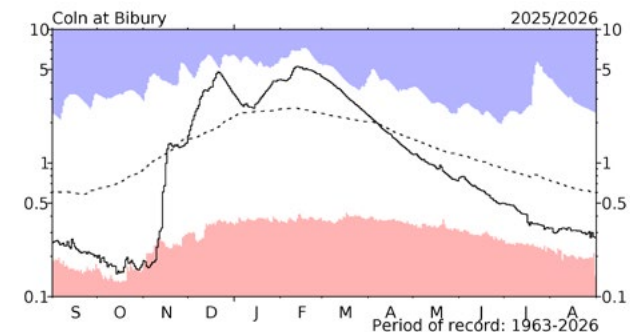
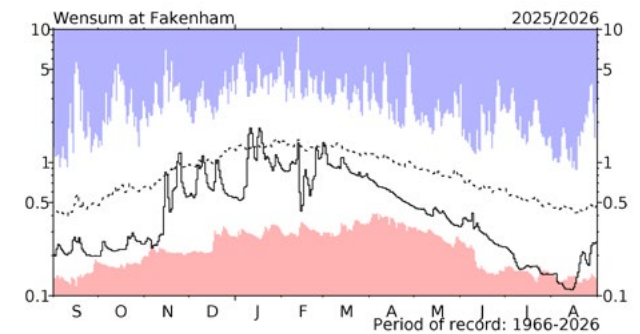
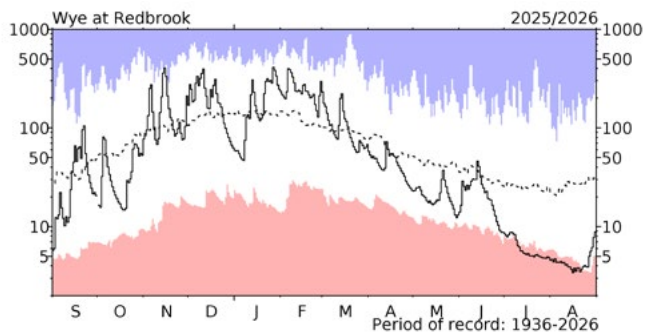
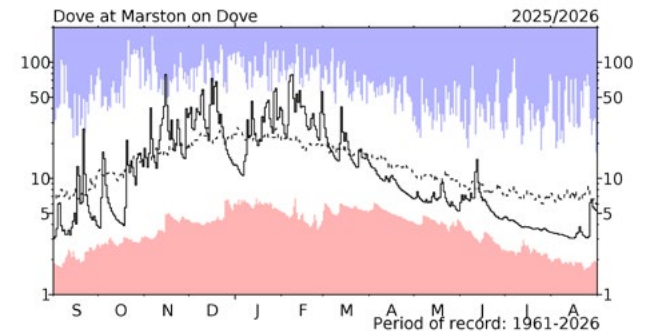
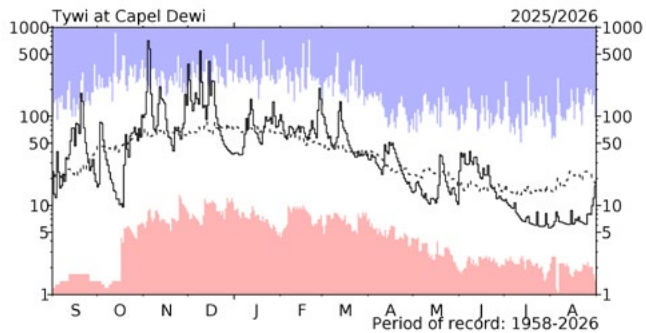
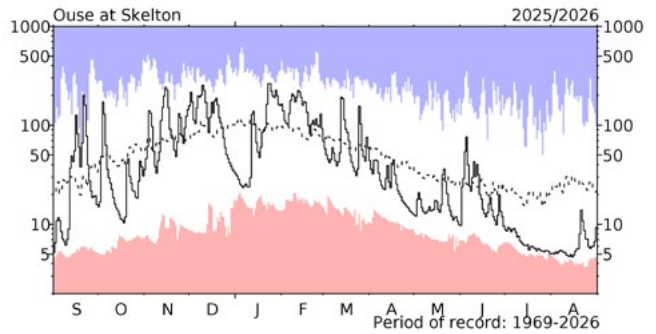
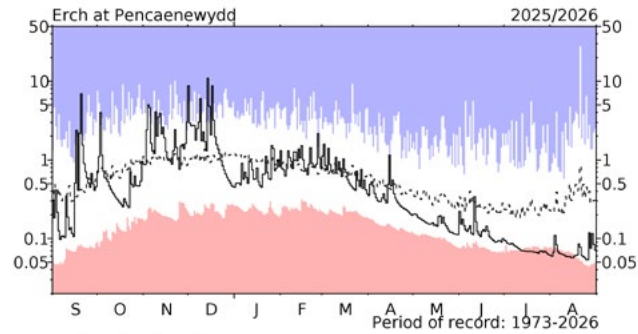
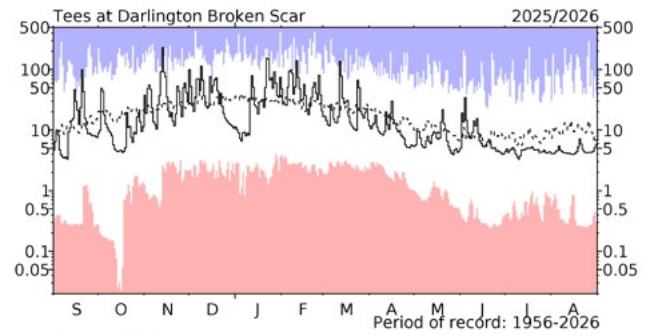
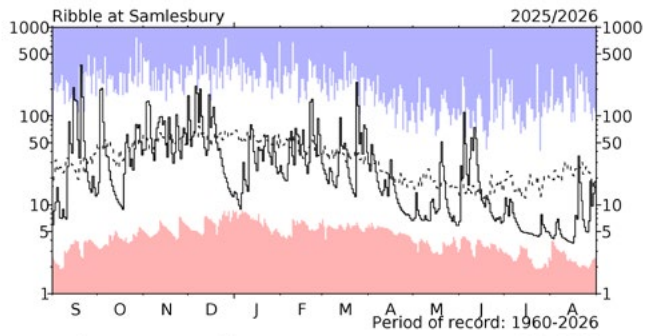
River flow



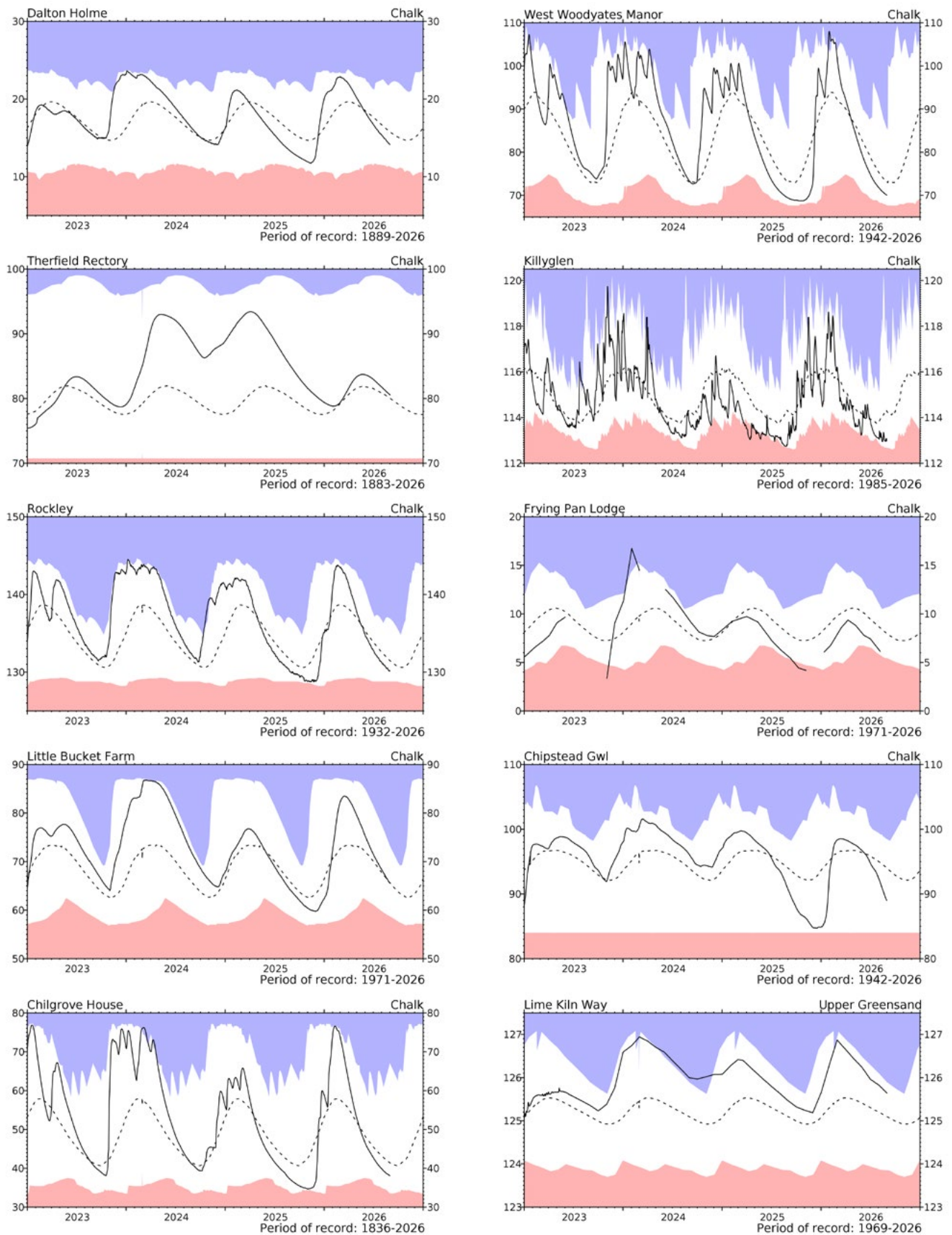
River flow hydrographs

*The river flow hydrographs show the daily mean flows (measured in m^3s^{-1}) together with the maximum and minimum daily flows prior to September 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

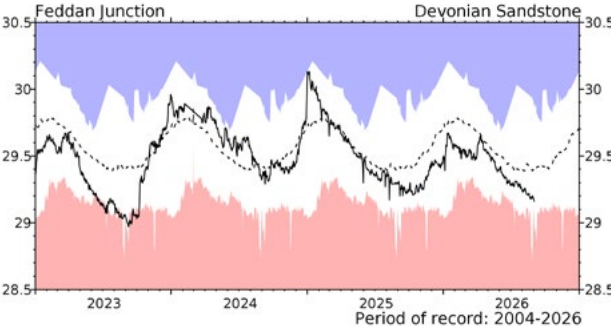
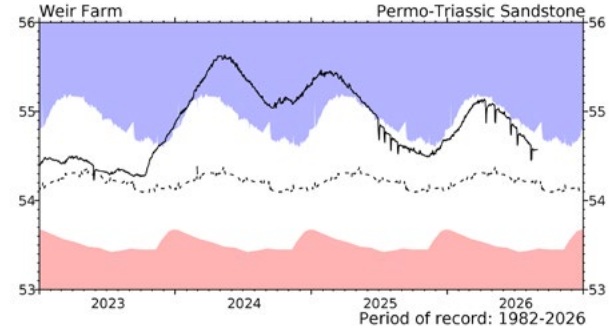
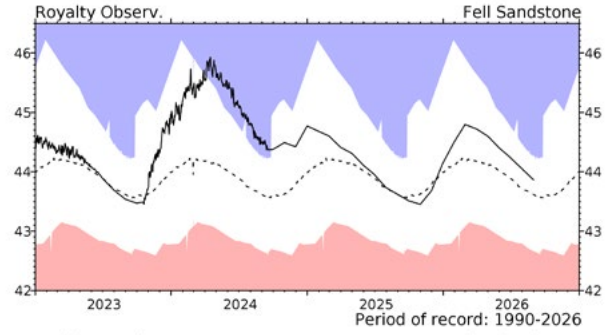
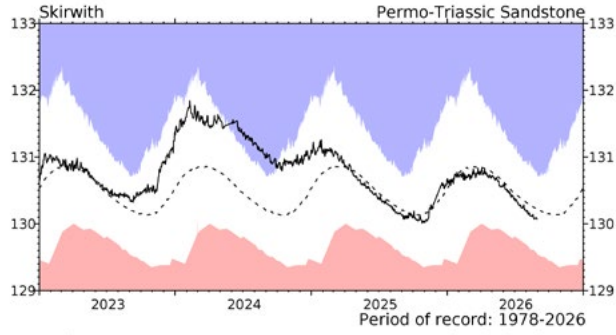
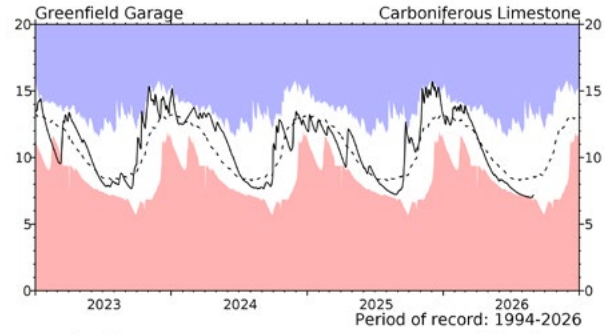
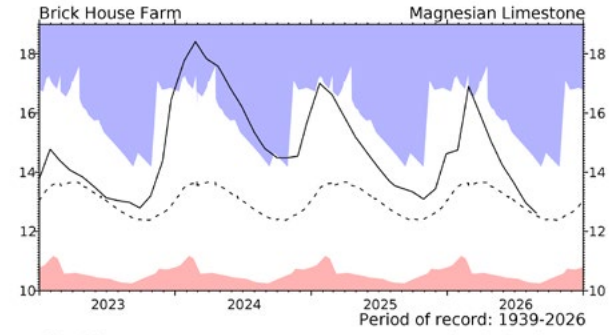
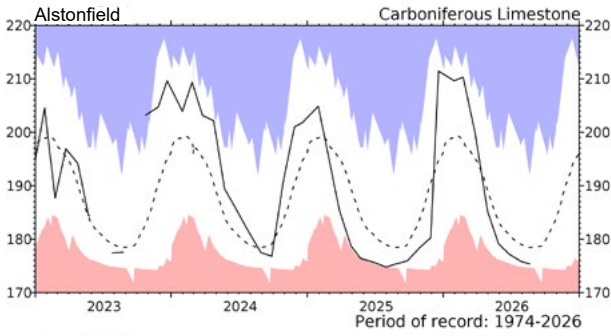
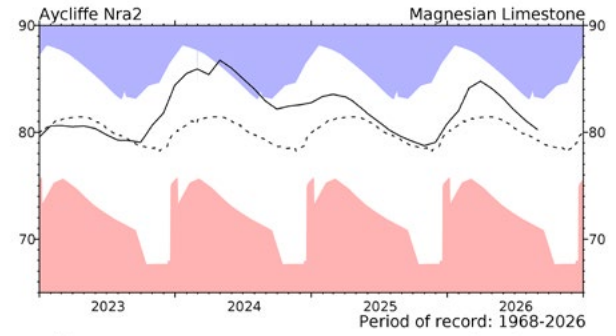
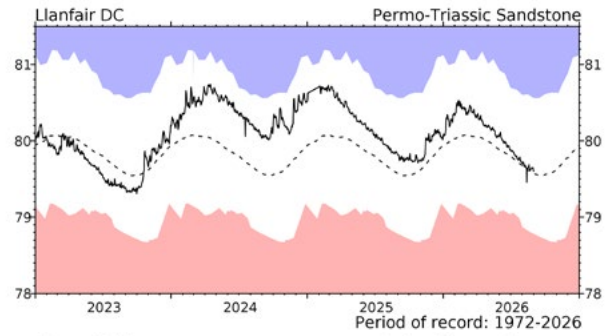
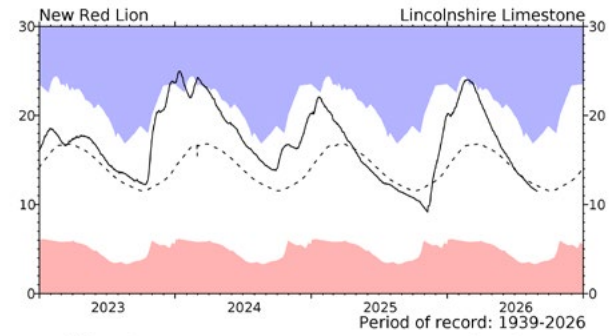
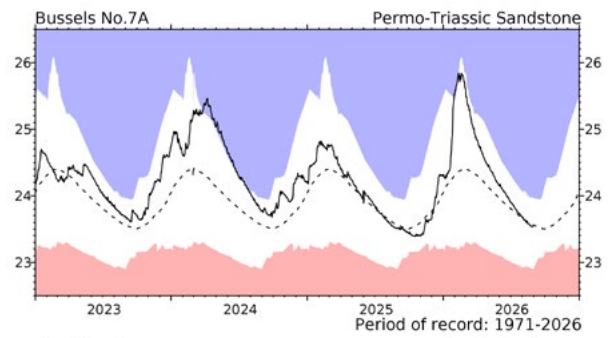
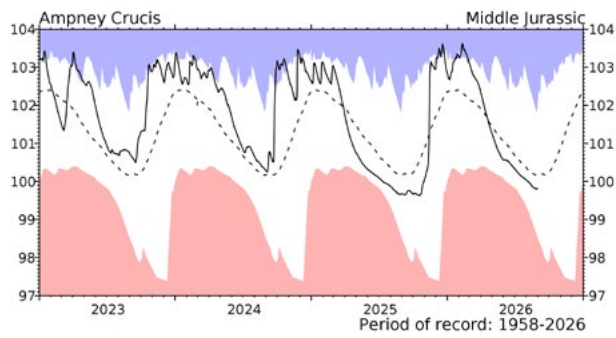


Groundwater

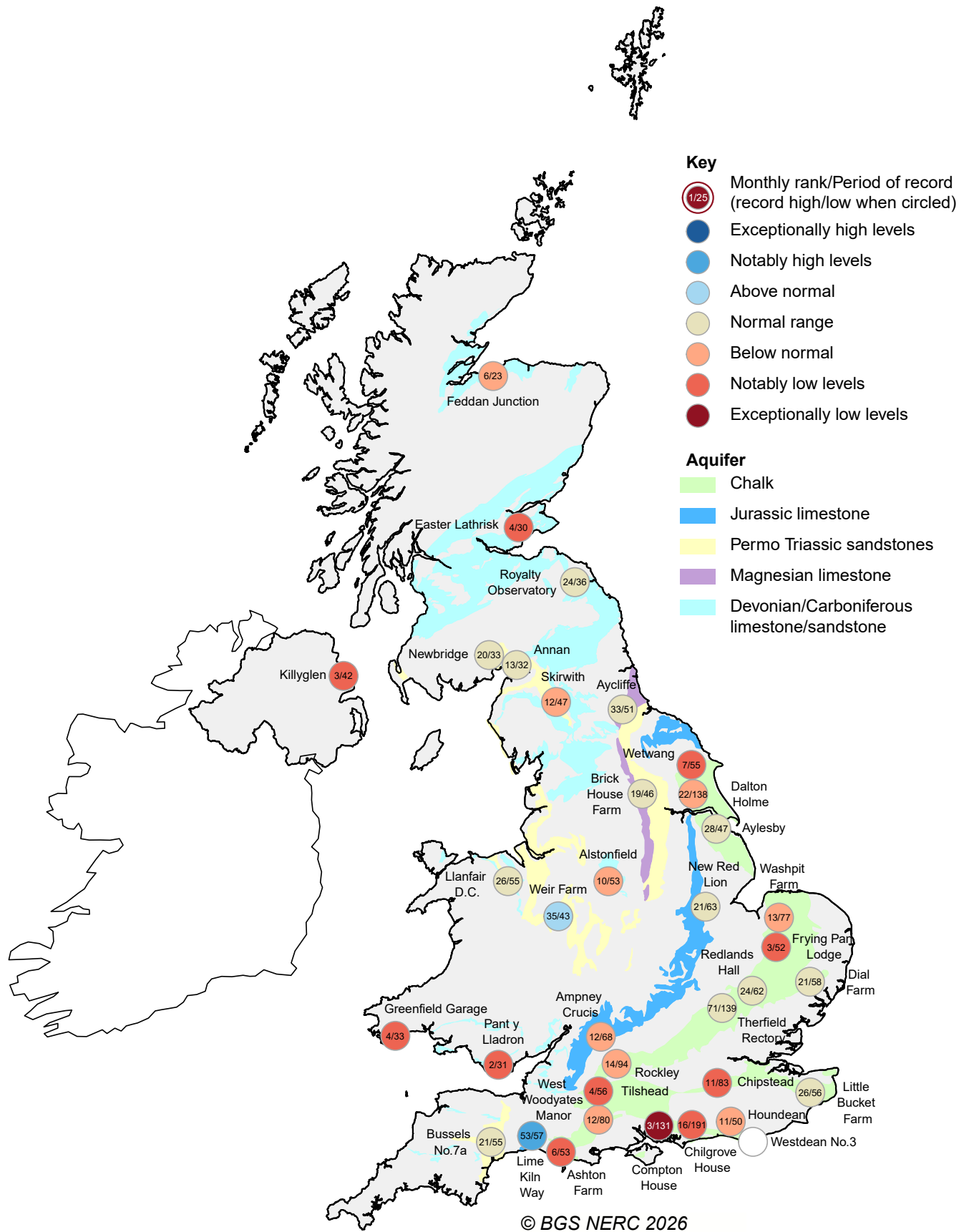


Groundwater levels (measured in metres above ordnance datum) normally rise and fall with the seasons, reaching a peak in the spring following replenishment through the winter (when evaporation losses are low and soil moist). They decline through the summer and early autumn. This seasonal variation is 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

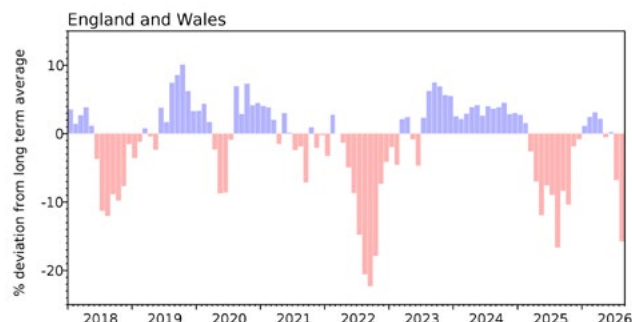


Groundwater levels - August 2026

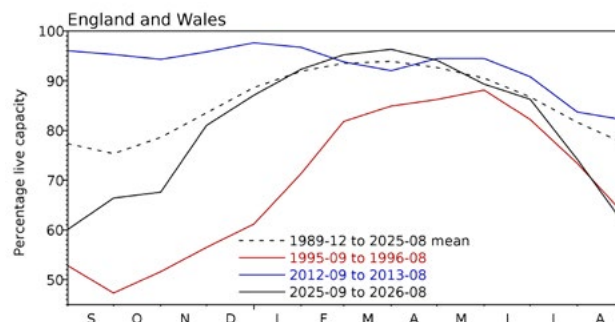
The calculation of ranking has been modified from that used in summaries published prior to October 2012. It is now based on a comparison between the most recent level and levels for the same date during previous years of record. Where appropriate, levels for earlier years may have been interpolated. 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 Jun	2026 Jul	2026 Aug	Aug Anom.	Min Aug	Year* of min	2025 Aug	Diff 26-25
North West	N Command Zone	• 124929	82	65	45	-15	15	1984	43	2
	Vyrnwy	• 55146	94	82	70	-4	36	1995	75	-5
Northumbrian	Teesdale	• 87936	81	66	80	8	38	1995	57	24
	Kielder	(199175)	92	82	77	-10	66	1989	81	-4
Severn-Trent	Clywedog	• 49936	95	62	40	-38	27	1976	59	-19
	Derwent Valley	• 46692	79	60	48	-18	34	1995	40	9
Yorkshire	Washburn	• 23373	77	63	50	-19	30	2025	30	21
	Bradford Supply	• 40942	78	62	47	-20	21	1995	31	16
Anglian	Grafham	(55490)	88	76	65	-20	59	1997	72	-7
	Rutland	(116580)	90	81	73	-10	66	1995	72	2
Thames	London*	• 202828	89	89	61	-20	61	2026	71	-10
	Farmoor	• 13822	99	99	76	-17	64	1995	82	-6
Southern	Bewl	• 31000	81	68	58	-11	38	1990	55	3
	Ardingly	• 4685	87	61	35	-35	31	2022	34	1
Wessex	Clatworthy	• 5662	68	52	38	-25	31	1995	37	1
	Bristol	(38666)	79	64	54	-14	39	2025	39	15
South West	Colliford	• 28540	75	61	49	-20	31	2022	48	2
	Roadford	• 34500	85	68	55	-16	40	1995	65	-10
	Wimbleball	• 21320	69	50	34	-34	34	2026	39	-5
	Stithians	• 4967	76	55	40	-22	27	2022	54	-15
Welsh	Celyn & Brenig	• 131155	85	73	58	-23	49	1989	62	-4
	Brianne	• 62140	99	90	74	-13	52	2022	63	11
	Big Five	• 69762	84	67	53	-18	29	1995	47	6
	Elan Valley	• 99106	82	68	54	-20	37	1976	43	11
Scotland(E)	Edinburgh/Mid-Lothian	• 97223	88	80	72	-8	45	1998	72	0
	East Lothian	• 9317	82	72	60	-26	60	2026	63	-3
Scotland(W)	Loch Katrine	• 110326	87	75	66	-8	50	2021	55	11
	Daer	• 22494	97	85	74	-4	41	1995	69	5
	Loch Thom	• 10721	84	75	69	-13	50	2021	77	-8
Northern	Total**	• 56800	91	78	69	-8	40	1995	68	1
Ireland	Silent Valley	• 20634	96	82	68	-6	33	2000	68	0

() figures in parentheses relate to gross storage

• denotes reservoir groups

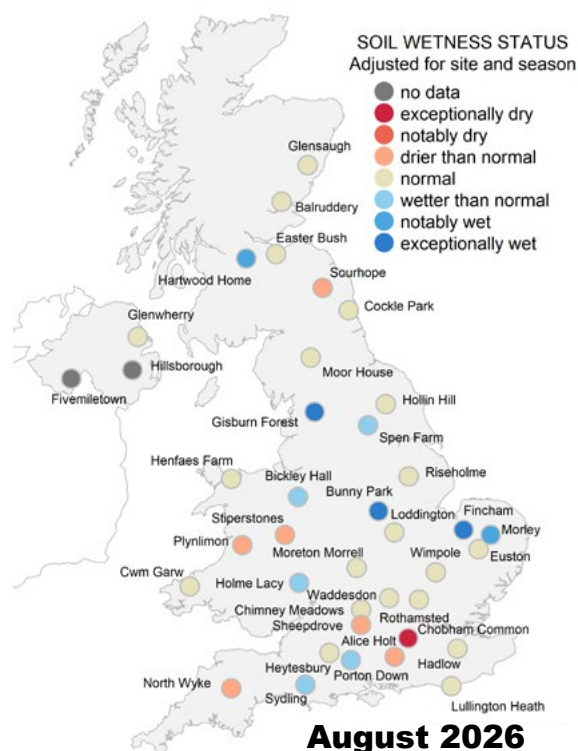
*last occurrence

+some reservoirs in the London group were impacted by a previously planned outage

**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



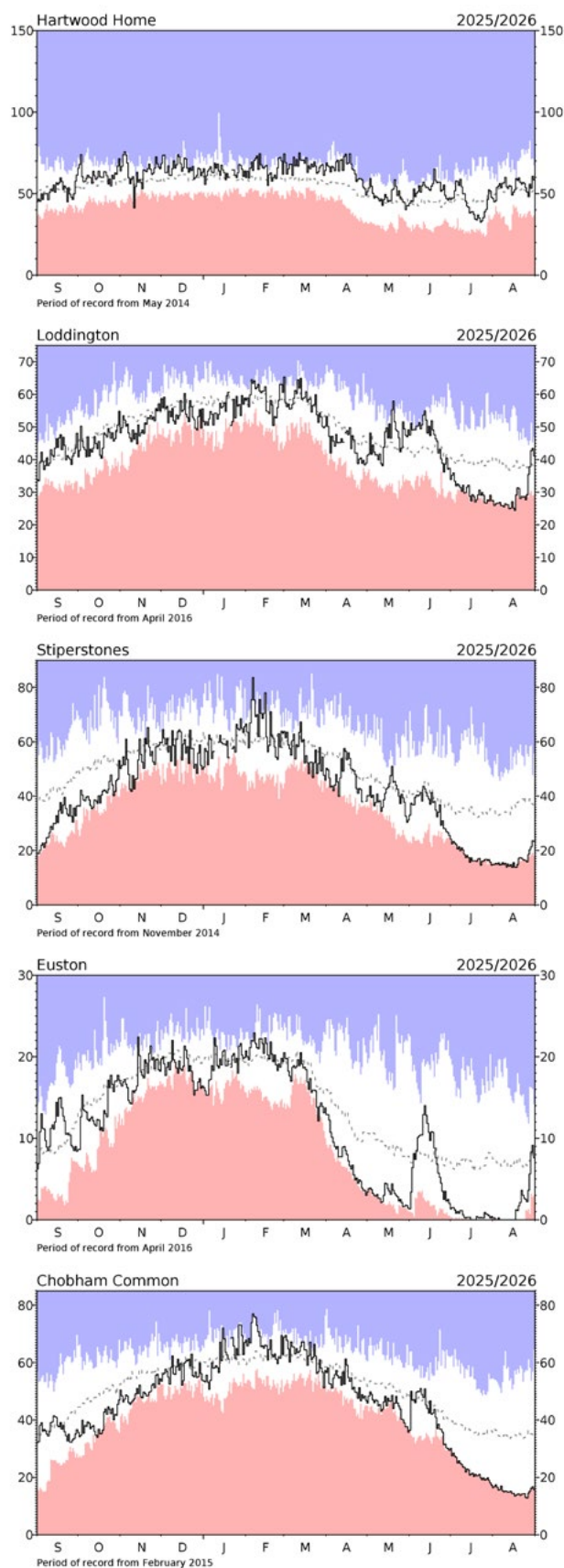
Daily mean soil moisture status at COSMOS-UK sites on the last day of the month 31 August 2026. Soil wetness categories are adjusted for site specific characteristics, i.e. taking account of the possible range of soil wetness at each site, determined through period-of-record data and hindcast modelling.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

Increased rainfall and lower temperatures during August led to a partial recovery in soil moisture at many COSMOS-UK sites, though most remained well below field capacity. More northerly sites, including Balruddery, Easter Bush and Hartwood Home, were generally within the normal range for the time of year or slightly wetter than average. Across central and southern England, many sites started the month exceptionally dry, followed by a sharp increase in soil moisture towards the end of the month, including Chimney Meadows, Euston, Loddington, Porton Down and Riseholme. However, some locations remained notably dry; for example, North Wyke, Chobham Common and Stiperstones were among the driest sites in the network.

The August data show localised short-term recovery in soil moisture. However, more prolonged rainfall is needed over the coming months for widespread recovery across the COSMOS-UK network after the hot, dry summer.

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.

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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 data 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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