Hydrological Summary for the United Kingdom

October 2026

General

October brought some respite from the dry weather experienced since the spring, with the UK as a whole recording 113% of October average rainfall. However, parts of eastern Scotland, north-east England and the Welsh borders remained drier than average. By month-end, soil moisture deficits remained across much of southern, central and eastern England. Though river flows responded to the two named storms mid-month, other than in the north-west, October mean flows were in the normal range to exceptionally low. There was a mixed groundwater picture, with continued recessions in many aquifers but early signs of recharge at some responsive sites. Overall reservoir stocks in England & Wales rose slightly, but by month-end remained 16% below the October average. Many impoundments in southern England remained notably low, particularly Stithians, Ardingly and Wimbleball (all around 20% of capacity) - the latter recorded a new record monthly low for the third month in a row. These low levels led to the first declaration of 'Severe Drought' in England by the Environment Agency, in areas supplied by these reservoirs. Yorkshire moved into Drought status on the 9th, so that by month-end most of England and eastern Wales was in Drought, with the remainder in Prolonged Dry Weather or Recovery. Water scarcity in eastern Scotland reduced, with all regions in Normal or Early Warning conditions at month-end. The latest Hydrological Outlook indicates that below-normal flows are likely to persist in groundwater-dominated catchments in south east England, elsewhere flows are likely to be in the normal range to above. The start of November was dry with settled conditions; without substantial additional rainfall over the remainder of 2026, pressures on water resources are likely to continue into next year.

Rainfall

October saw alternating periods of high pressure and frontal systems. The month began with a mixture of dry days and intermittent showers resulting from a series of cold fronts. Rainfall was intense at times, with many days seeing individual sites recording in excess of 40mm, e.g., 48.4mm at Kinlochewe (Ross and Cromarty) on the 4th. Nevertheless, daily accumulated rainfall remained below average in eastern Scotland, England and Wales until mid-month. Following high pressure resulted in a short-lived dry spell from 16th-19th before the arrival of two named storms in quick succession. Storm Austen caused high winds and rain in southern England and Wales on the 22nd/23rd and was quickly followed by Storm Boelo in Northern Ireland, Scotland and north-west England on the 24th/25th. The highest daily rainfall total of the month was 131.6mm at Skye Alldearg House (Inverness-shire) on the 26th. High pressure then returned, bringing drier conditions for England at month-end. All regions recorded above-average October rainfall except North East Scotland (96% of October average). Substantially above-average rainfall was received in the Highland (131%) and Wessex (126%) regions. However, this rainfall was insufficient to compensate for the dry summer; since June, England recorded only 77% and Wales 79% of average rainfall. Since the start of Spring, there has been substantial variation across the UK: the Western Isles recorded their wettest March-October, while over the same period the Thames and Anglian regions registered their fourth driest (all in series from 1890).

River Flows

At the start of October, flows in most areas well below average, with three rivers recording six or more days of consecutive daily flow minima (Bervie, Yorkshire Derwent and Wensum in records since 1979, 1973 and 1966, respectively). Flows rose over the first week in most areas, then, after a brief recession mid-month, storms Austen and Boelo led to rapid flow responses. Flows receded again approaching month-end. Nevertheless, by the end of October, flows in many rivers were higher than at the end of September. Outflows from the UK followed this same pattern throughout the month. October mean flows were in the normal range and above in Northern Ireland, Scotland and northern England. Elsewhere flows were in the normal range to notably low, with some catchments continuing to record exceptionally low flows, including the Coln and the Wensum (31% and 34% of their October averages, respectively). In contrast, the Bush and Ness were both notably high and registered 170% and 143%, respectively, of their October averages. For autumn so far (September-October), river flows in western Scotland and parts of Northern Ireland were above normal but were in the normal range to below elsewhere. Several English and Welsh rivers recorded notably and exceptionally low flows over the last two months, including the Yorkshire Derwent, Wensum, Thames, and Tone. Since the start of the summer (June-October), several rivers recorded new records: highs on the Ewe and Carron and lows on the Yorkshire Derwent and Erch (all in series of at least 52 years).

Soil Moisture and Groundwater

October's rainfall reduced soil moisture deficits across most of the country. At many COSMOS-UK sites, soil moisture was in the normal range at month-end, though deficits persisted at some sites in southern England. Groundwater levels in the Chalk were in the normal range to notably low and continued to decline across much of England. Levels at West Woodyates Manor, Tilshead and Ashton Farm moved into the exceptionally low range. In Northern Ireland, levels at Killyglen rose but remained in the normal range. In the Jurassic limestones levels were below normal, falling at New Red Lion and rising at Ampney Crucis. Levels in the Magnesian Limestone continued a slow recession but remained within the normal range. Groundwater levels in the Carboniferous Limestone recovered during October at both Alstonfield and Pant-y-Ladron, the latter rose from notably low to the normal range. In the Permo-Triassic sandstones, groundwater levels generally continued to fall, ending October in the normal range. However, at Skirwith, levels remained below normal, while Weir Farm continued to record above normal levels following substantial recharge over recent years. In the Upper Greensand, levels at Lime Kiln Way and in the Fell Sandstone at Royalty Observatory continued to decline but remained above normal and in the normal range, respectively. In the Devonian sandstones, levels at Feddan Junction continued to stabilise but Easter Lathrisk showed limited recovery and remained notably low.

National Hydrological Monitoring Programme | UKCEH | BGS British Geological Survey

Rainfall

Rainfall accumulations and return period estimates

Percentages are from the 1991-2020 average.

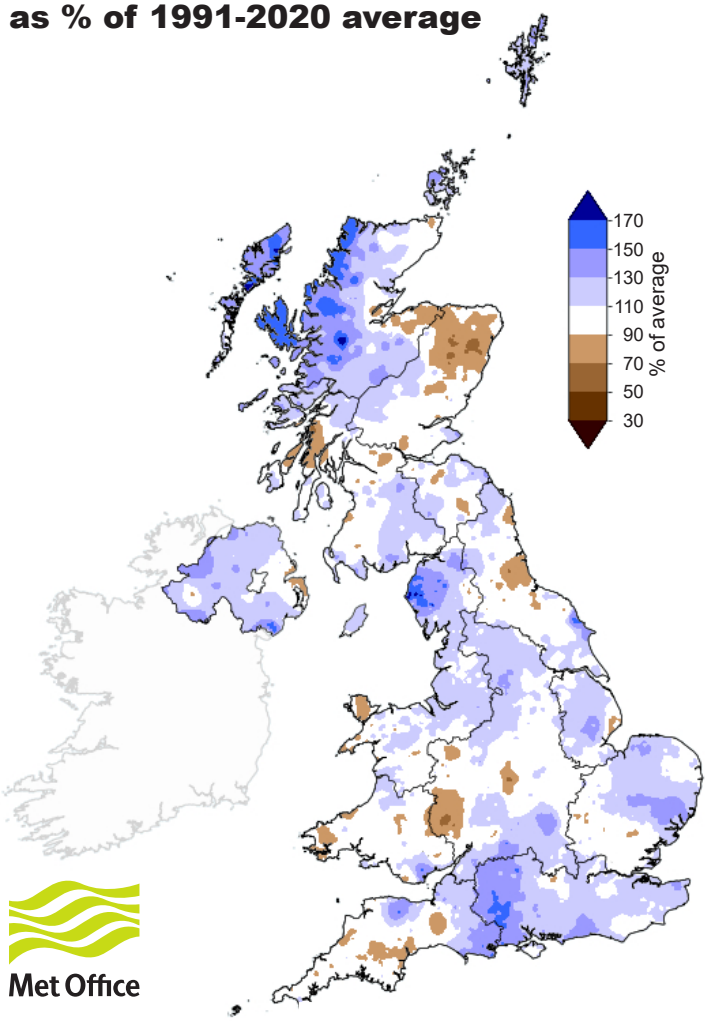
Region	Rainfall	Oct 2026	Sep26 – Oct26	RP	Jun26 – Oct26	RP	Mar26 – Oct26	RP	Nov25 – Oct26	RP
United Kingdom	mm	139	234		430		627		1191	
	%	113	109	2-5	92	2-5	90	2-5	103	5-10
England	mm	102	146		279		391		875	
	%	112	92	2-5	77	5-10	73	20-30	101	2-5
Scotland	mm	195	364		664		991		1624	
	%	116	125	5-10	109	2-5	108	5-10	103	5-10
Wales	mm	163	276		455		675		1482	
	%	103	102	2-5	79	5-10	79	5-10	101	2-5
Northern Ireland	mm	136	254		501		722		1281	
	%	119	126	5-10	106	2-5	102	2-5	111	15-25
England & Wales	mm	110	164		303		430		958	
	%	110	94	2-5	77	5-10	74	15-25	101	2-5
North West	mm	163	270		497		748		1352	
	%	122	112	2-5	93	2-5	97	2-5	105	5-10
Northumbria	mm	91	130		270		423		862	
	%	104	81	2-5	69	8-12	74	10-20	95	2-5
Severn-Trent	mm	84	125		252		364		842	
	%	104	87	2-5	73	5-10	71	15-25	105	2-5
Yorkshire	mm	93	131		264		409		867	
	%	111	85	2-5	71	5-10	75	10-15	100	2-5
Anglian	mm	72	100		206		256		583	
	%	113	85	2-5	71	5-10	61	40-60	92	2-5
Thames	mm	90	120		217		281		679	
	%	116	90	2-5	72	5-10	62	30-50	93	2-5
Southern	mm	113	151		265		331		797	
	%	120	97	2-5	82	2-5	69	15-25	97	2-5
Wessex	mm	125	161		278		366		960	
	%	126	97	2-5	77	5-10	68	30-50	106	2-5
South West	mm	136	207		369		517		1362	
	%	100	92	2-5	77	2-5	72	10-20	108	5-10
Welsh	mm	156	262		437		646		1433	
	%	102	101	2-5	79	5-10	79	8-12	102	2-5
Highland	mm	256	478		866		1296		1928	
	%	131	139	15-25	127	15-25	123	30-50	104	5-10
North East	mm	117	214		399		575		1066	
	%	96	105	2-5	87	2-5	86	5-10	100	2-5
Tay	mm	161	280		494		774		1463	
	%	107	111	2-5	91	2-5	95	2-5	105	5-10
Forth	mm	133	241		469		692		1227	
	%	101	107	2-5	93	2-5	93	2-5	99	2-5
Tweed	mm	124	199		382		579		1059	
	%	109	102	2-5	84	2-5	87	2-5	97	2-5
Solway	mm	190	339		605		917		1659	
	%	111	117	2-5	97	2-5	99	2-5	105	5-10
Clyde	mm	210	427		796		1167		1932	
	%	105	122	5-10	109	2-5	107	5-10	102	5-10

% = percentage of 1991-2020 average *RP = Return period*

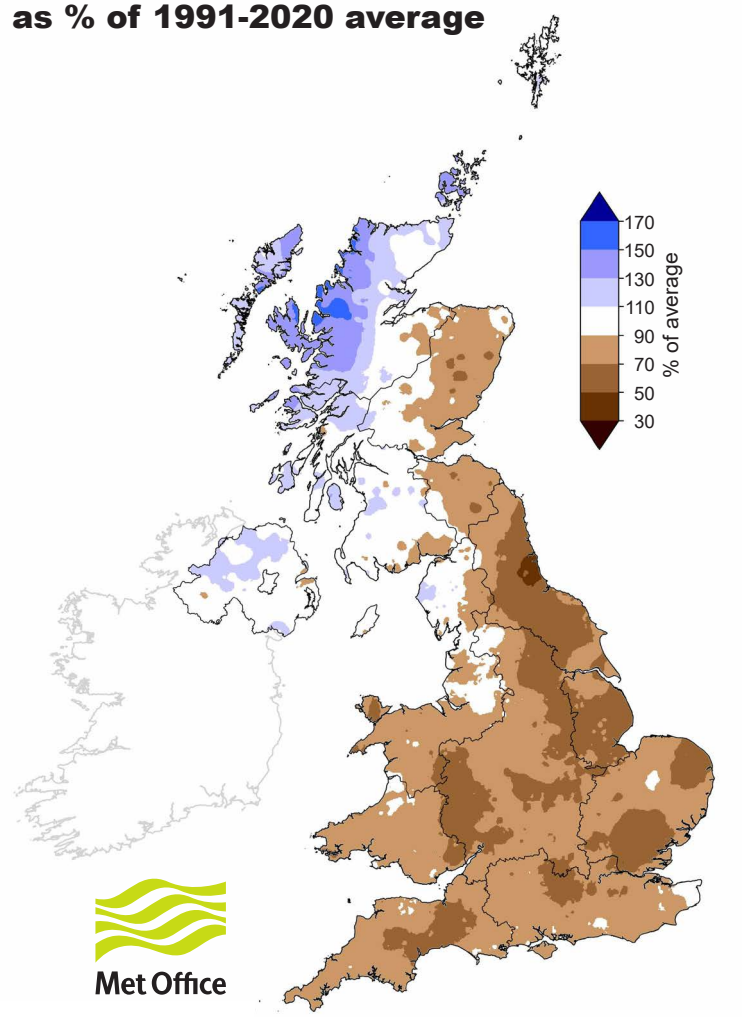
Important note: Figures in the above table may be quoted provided their source is acknowledged. Where appropriate, specific mention must be made of the uncertainties associated with the return period estimates. The RP estimates are based on data provided by the Met Office and reflect climatic variability 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 2026 are provisional. Source: Data from HadUK-Grid dataset at 1km resolution v1.3.2.0.

Rainfall

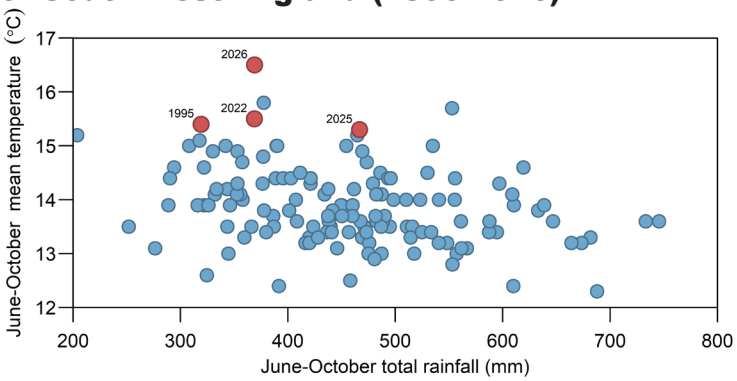
October 2026 rainfall as % of 1991-2020 average



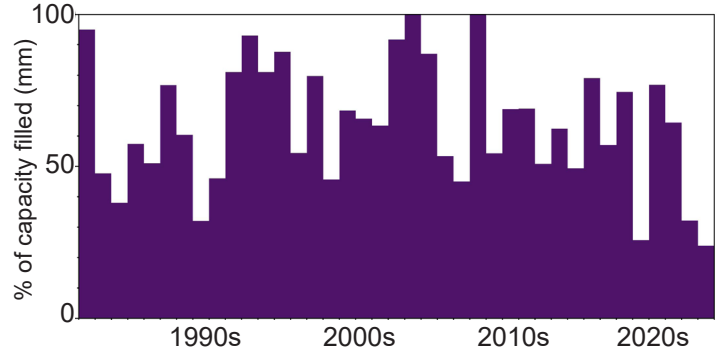
June 2026 - October 2026 rainfall as % of 1991-2020 average



June - October rainfall and mean temperature for South West England (1890-2026)



August - October average month-end stocks at Wimbleball



UK Hydrological Outlook

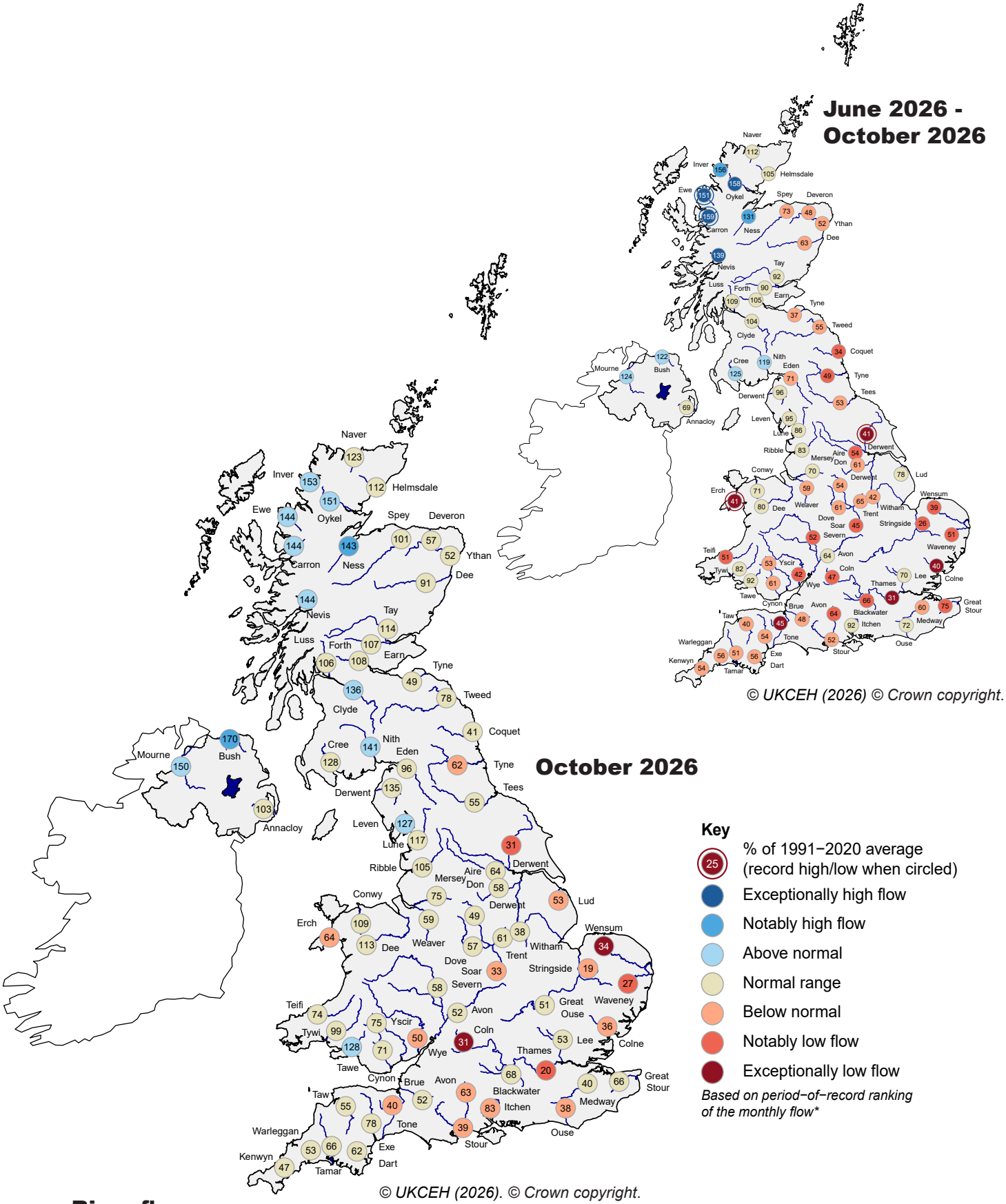
The Hydrological Outlook provides an insight into future hydrological conditions across the UK. Specifically it describes likely trajectories for river flows and groundwater levels on a monthly basis, with particular focus on the next three months.

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

Period: from November 2026
Issued: 10.11.2026
using data to the end of October 2026

October rainfall was average or above average across much of the UK. Parts of north-west Scotland and north-west England received more than 150% of average October rainfall, while parts of eastern Scotland and the Welsh Borders were drier than average. The forecast (issued by the Met Office on 26.10.2026) indicates an increased likelihood of above-average rainfall during November. For November to January, there is around twice the normal likelihood of wet conditions, although overall near-average or dry conditions still remain more likely. Since the forecast was issued, there has been an early Sudden Stratospheric Warming event, which could act to temper the chances of a wet early winter.

River flow



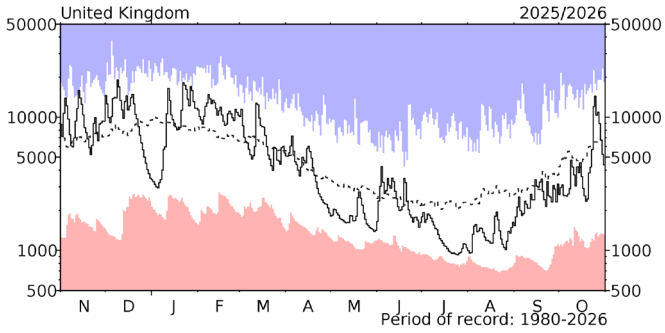
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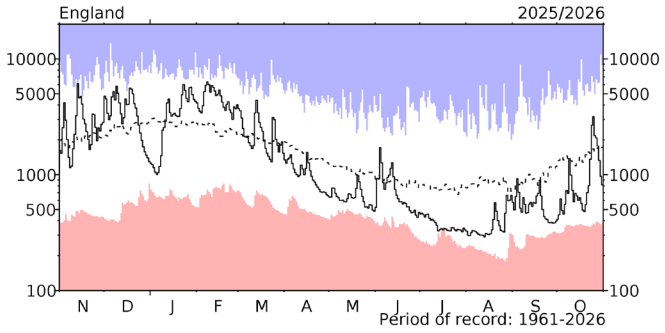
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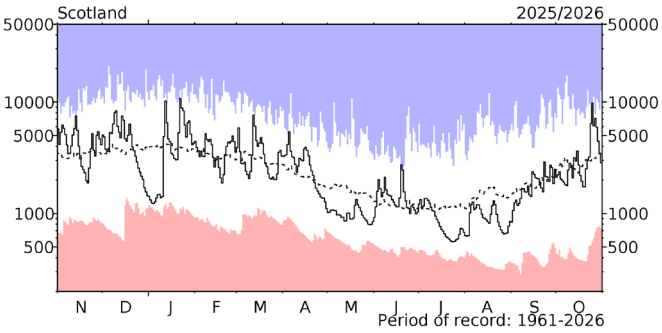
River flows

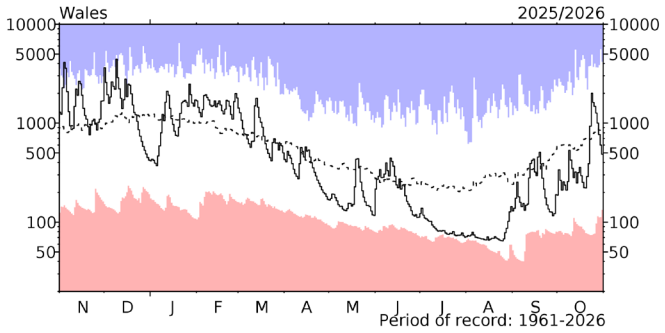
*Comparisons based on percentage flows alone can be misleading. A given percentage flow can represent extreme drought conditions in permeable catchments where flow patterns are relatively stable but be well within the normal range in impermeable catchments where the natural variation in flows is much 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.

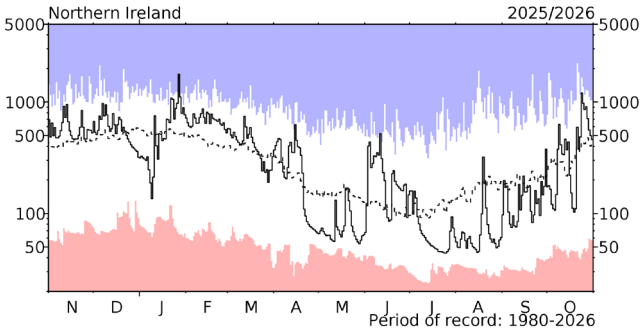
River flow

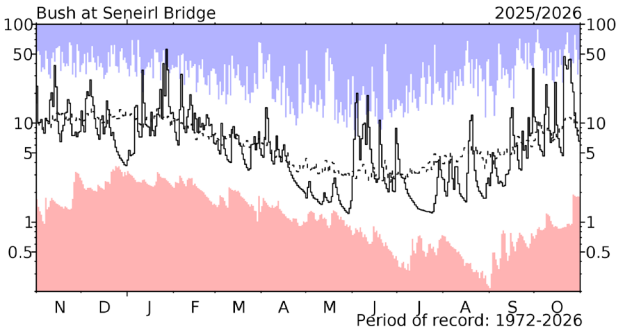


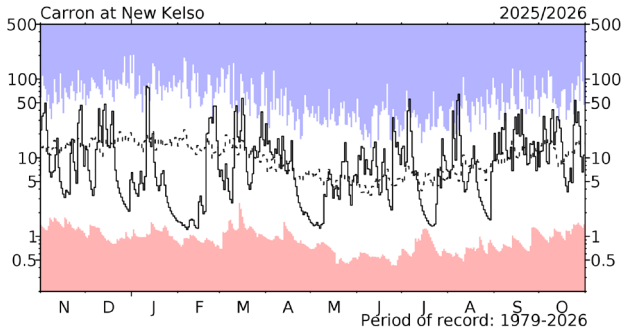


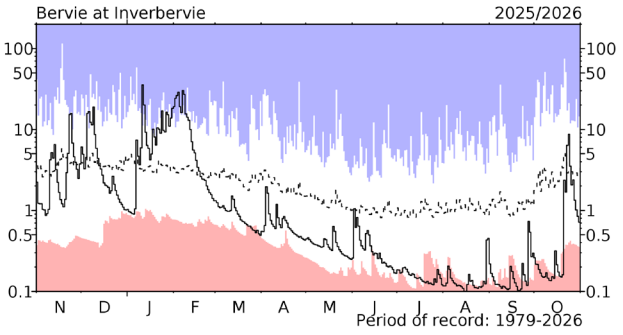


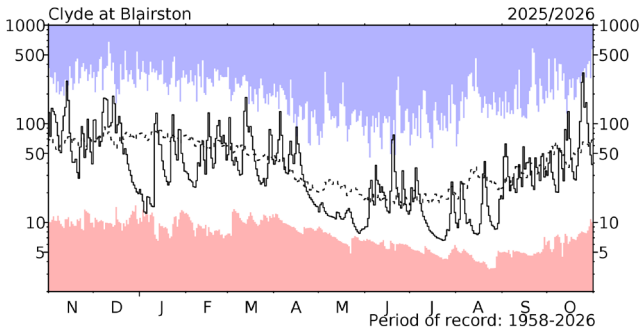


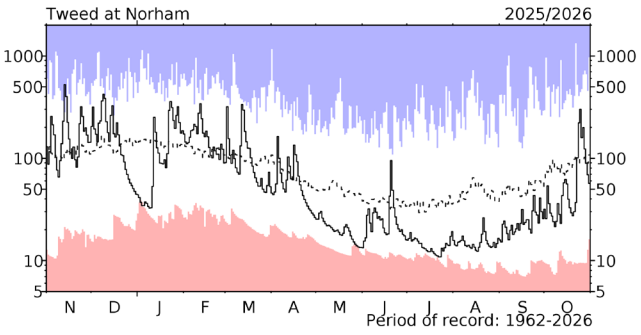








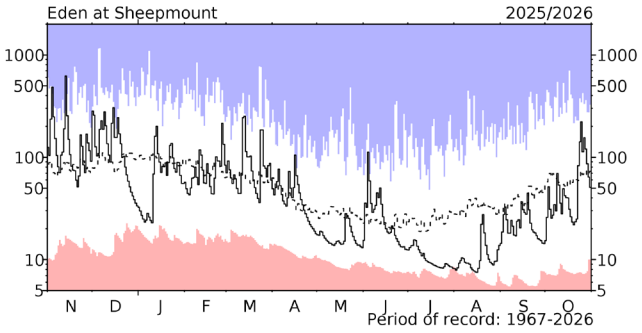


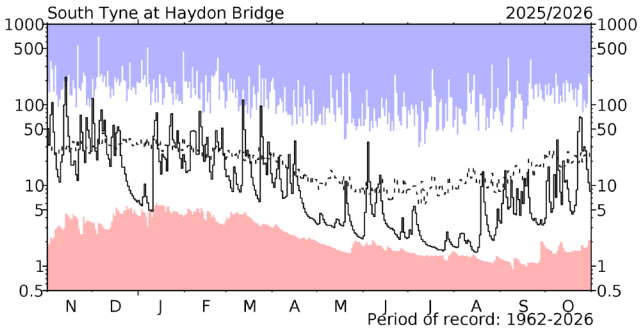


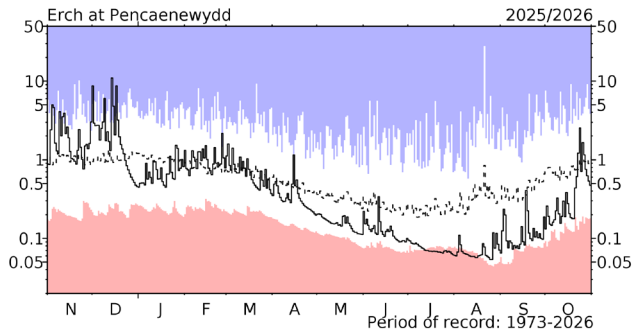
River flow hydrographs

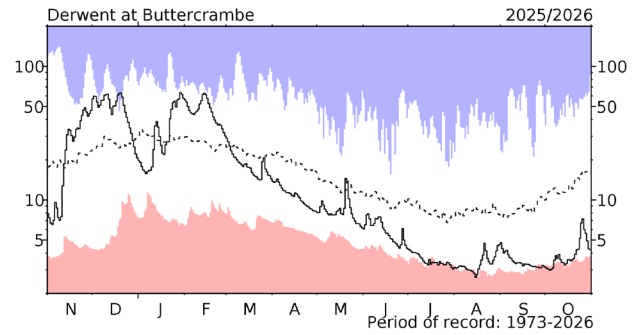
*The river flow hydrographs show the daily mean flows (measured in m^3s^{-1}) together with the maximum and minimum daily flows prior to November 2025 (shown by the shaded areas). Daily flows falling outside the maximum/minimum range are indicated where the bold trace enters the shaded areas. The dashed line represents the period-of-record average daily flow.

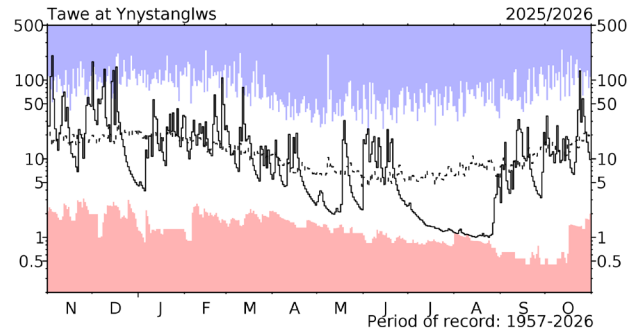
River flow

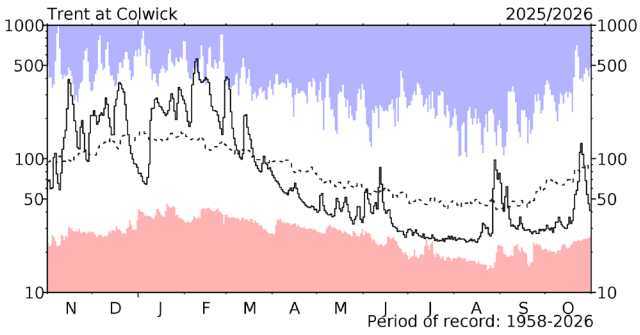

Eden at Sheepmount
2025/2026
1000
500
100
50
10
5
N D J F M A M J J A S O
Period of record: 1967-2026

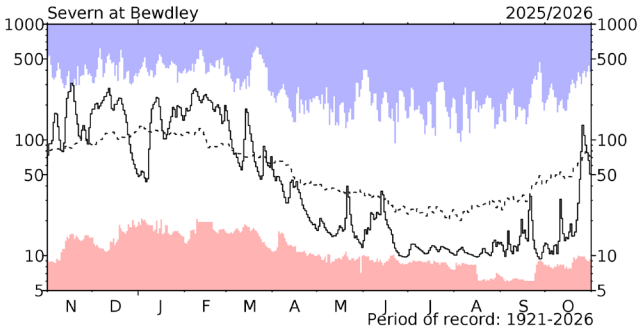

South Tyne at Haydon Bridge
2025/2026
1000
500
100
50
10
5
1
0.5
N D J F M A M J J A S O
Period of record: 1962-2026

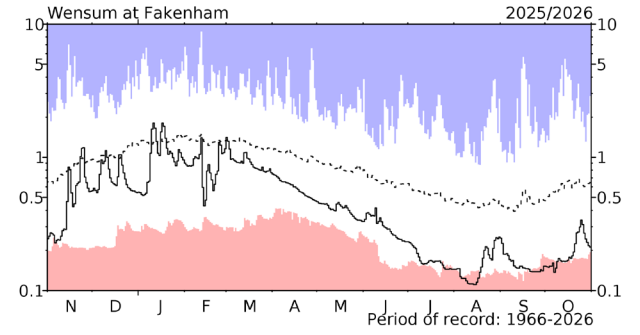

Erch at Pencaenewydd
2025/2026
50
10
5
1
0.5
0.1
0.05
N D J F M A M J J A S O
Period of record: 1973-2026

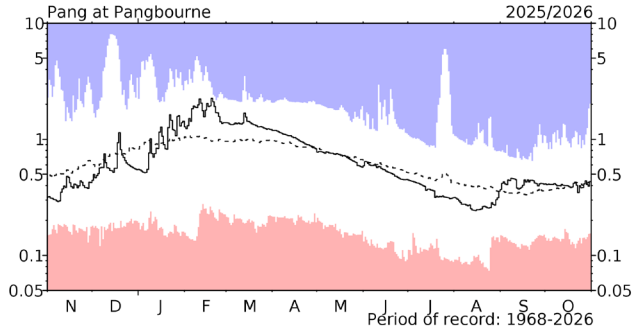

Derwent at Buttercrambe
2025/2026
100
50
10
5
N D J F M A M J J A S O
Period of record: 1973-2026

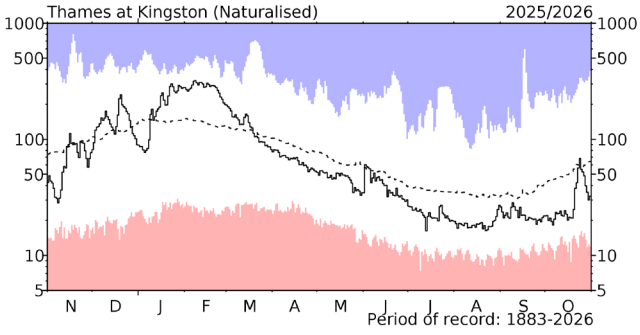

Tawe at Ynystanglws
2025/2026
500
100
50
10
5
1
0.5
N D J F M A M J J A S O
Period of record: 1957-2026

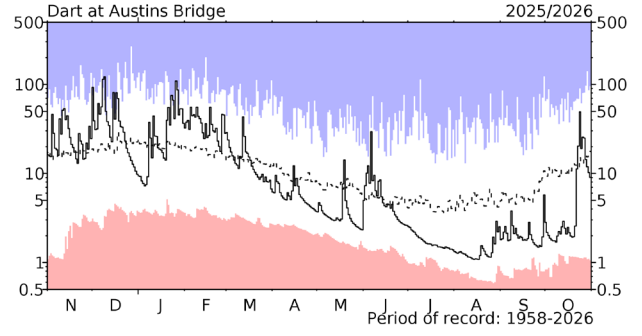

Trent at Colwick
2025/2026
1000
500
100
50
10
N D J F M A M J J A S O
Period of record: 1958-2026

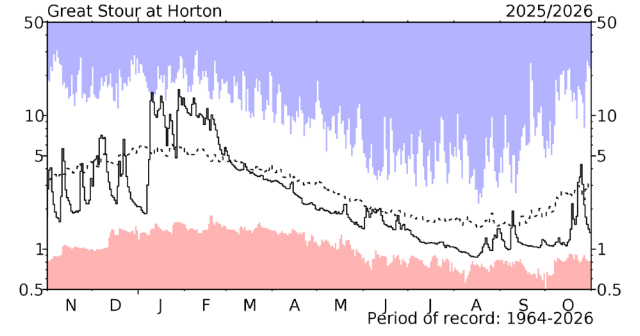

Severn at Bewdley
2025/2026
1000
500
100
50
10
5
N D J F M A M J J A S O
Period of record: 1921-2026


Wensum at Fakenham
2025/2026
10
5
1
0.5
0.1
N D J F M A M J J A S O
Period of record: 1966-2026

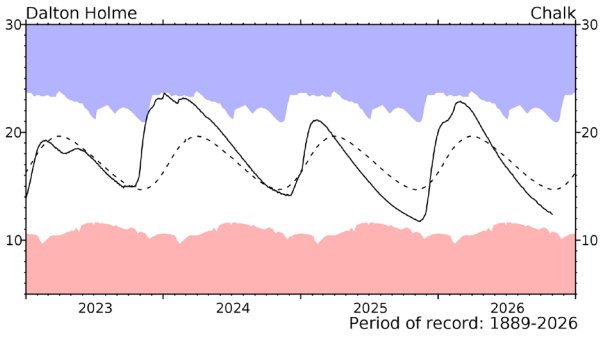

Pang at Pangbourne
2025/2026
10
5
1
0.5
0.1
0.05
N D J F M A M J J A S O
Period of record: 1968-2026

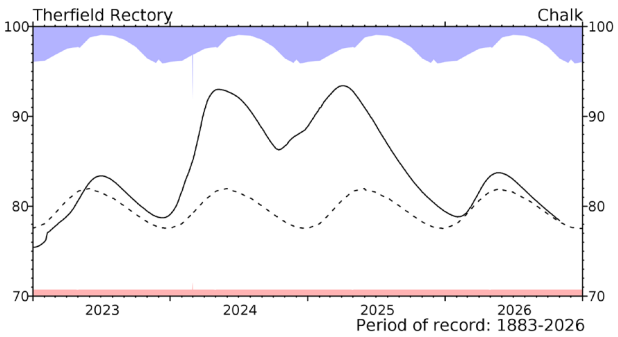

Thames at Kingston (Naturalised)
2025/2026
1000
500
100
50
10
5
N D J F M A M J J A S O
Period of record: 1883-2026

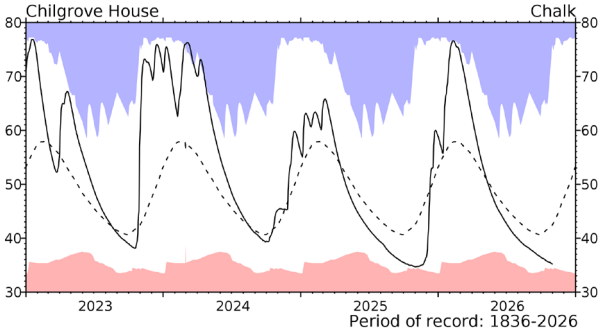

Dart at Austins Bridge
2025/2026
500
100
50
10
5
1
0.5
N D J F M A M J J A S O
Period of record: 1958-2026

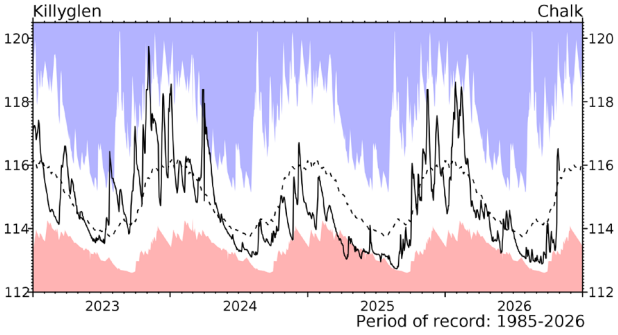

Great Stour at Horton
2025/2026
50
10
5
1
0.5
N D J F M A M J J A S O
Period of record: 1964-2026

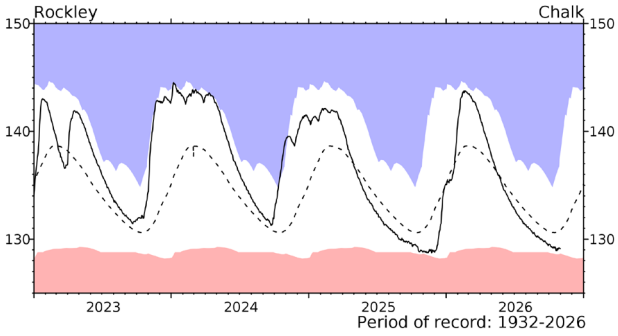
Groundwater

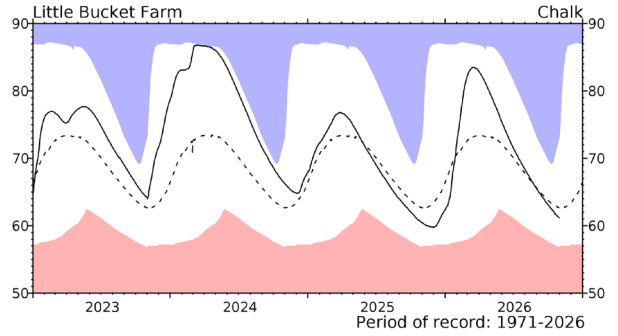


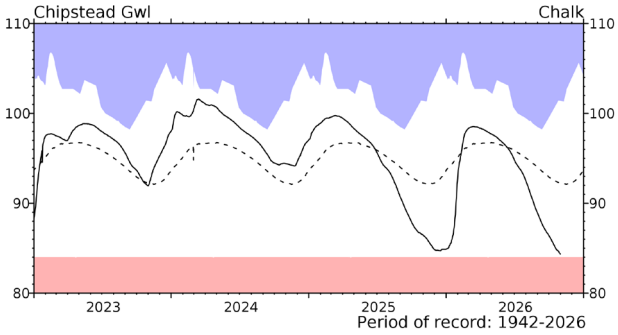


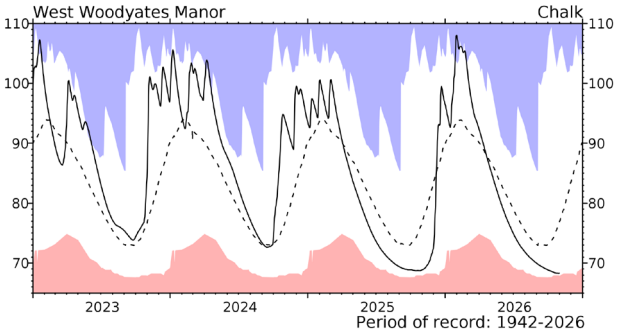


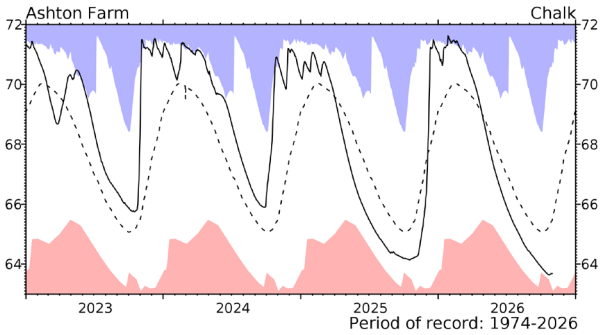


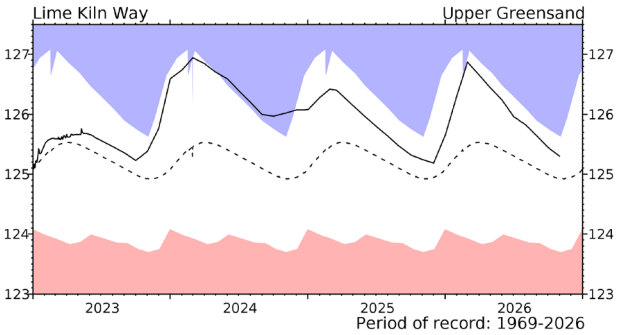






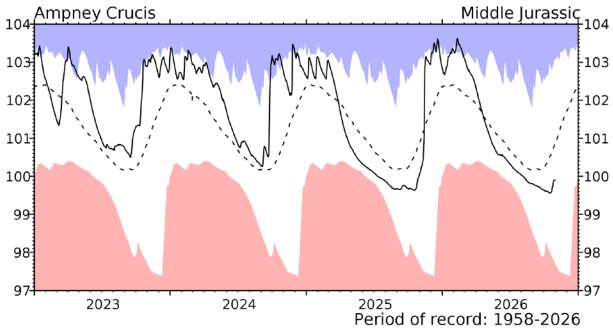


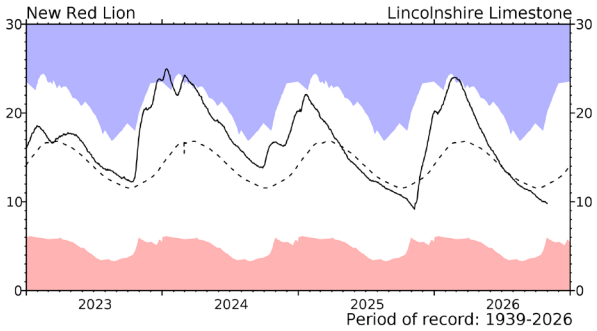


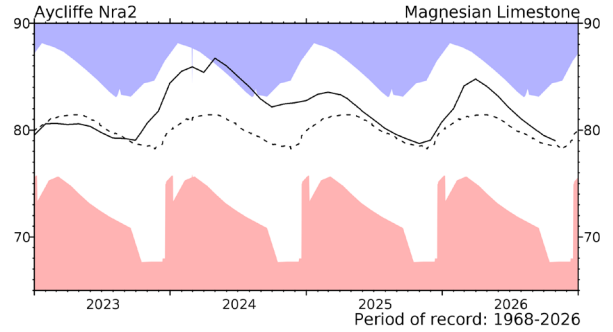


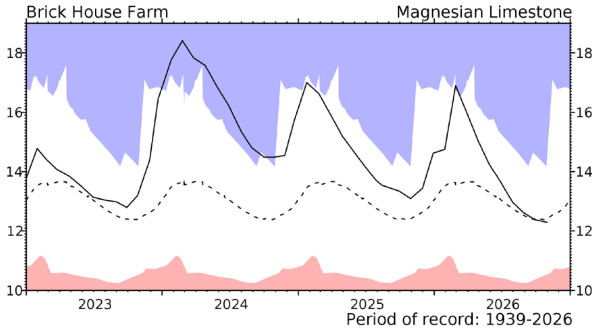
Groundwater levels (measured in metres above ordnance datum) normally rise and fall with the seasons, reaching a peak in the spring following replenishment through the winter (when evaporation losses are low and soil moist). They decline through the summer and early autumn. This seasonal variation is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

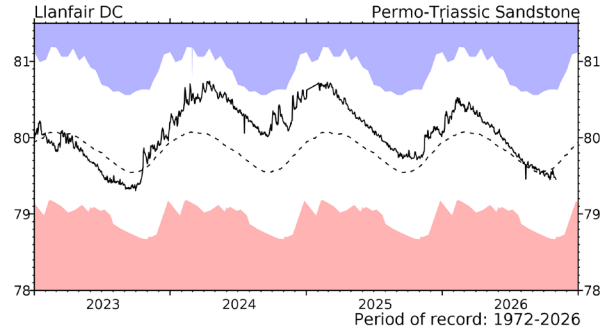
Groundwater

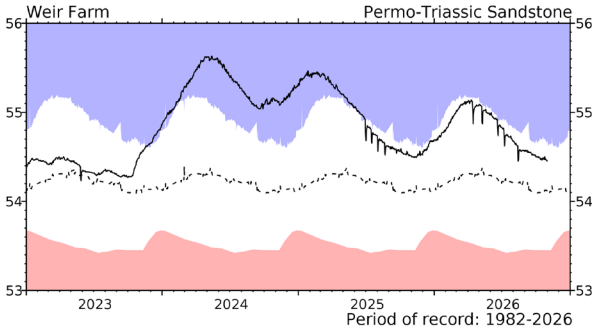


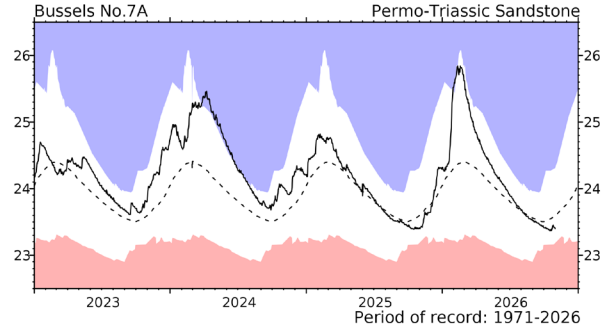


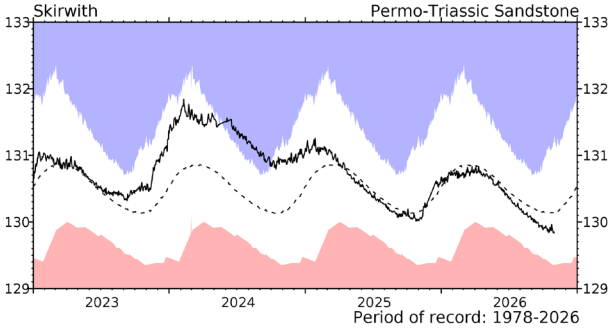


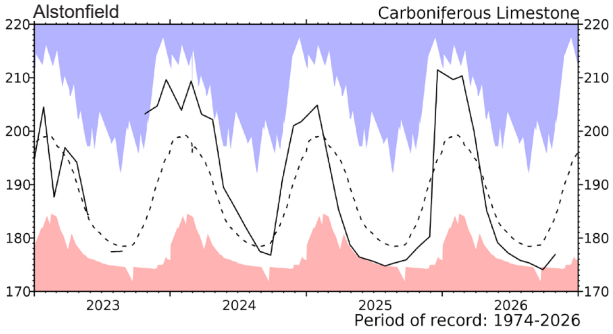


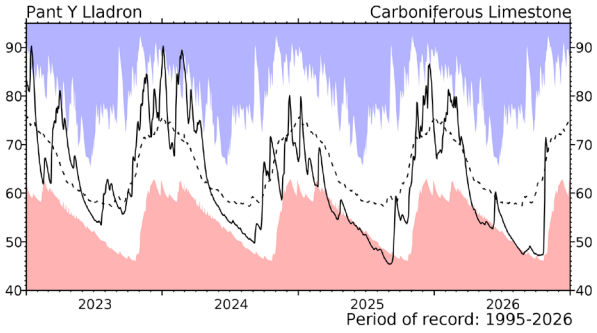


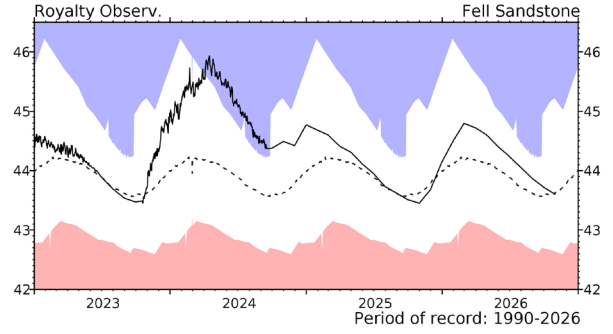


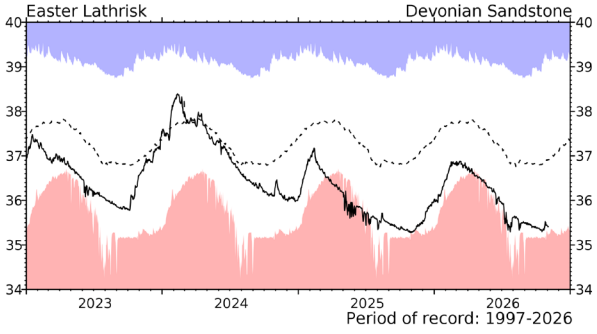




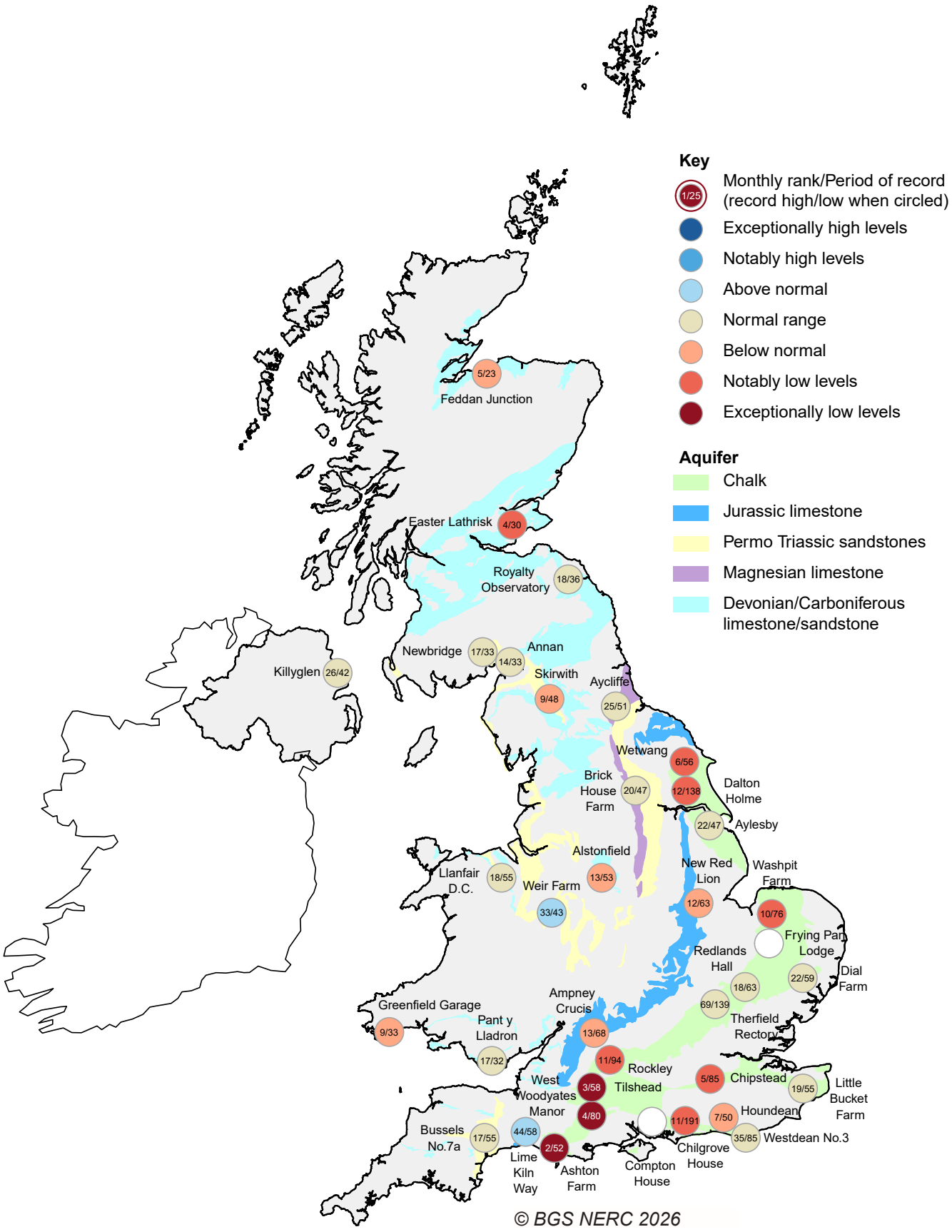








Groundwater

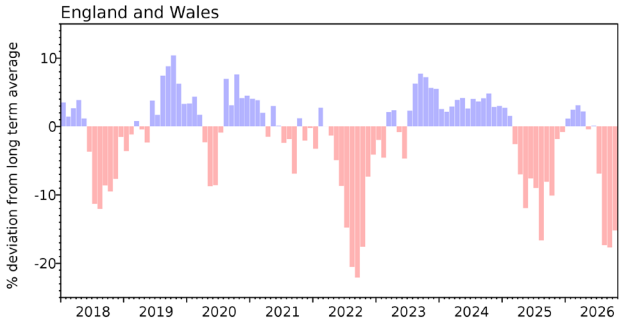


Groundwater levels - October 2026

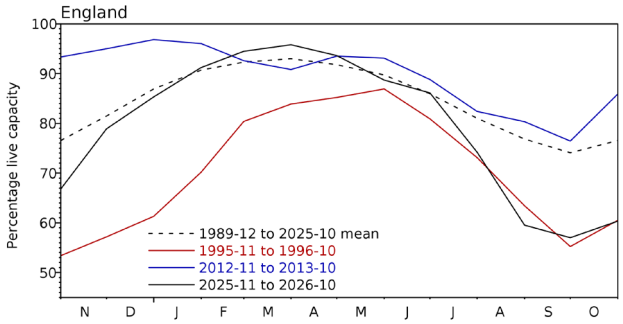
The calculation of ranking has been modified from that used in summaries published prior to October 2012. It is now based on a comparison between the most recent level and levels for the same date during previous years of record. Where appropriate, levels for earlier years may have been interpolated. 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 (Ml)	2026 Aug	2026 Sep	2026 Oct	Oct Anom.	Min Oct	Year* of min	2025 Oct	Diff 26-25
North West	N Command Zone	•	124929	45	52	63	-6	33	2003	69	-6
	Vyrnwy		55146	70	70	82	4	25	1995	88	-6
Northumbrian	Teesdale	•	87936	51	50	61	-17	33	1995	79	-18
	Kielder		199175	77	77	83	-3	63	1989	79	4
Severn-Trent	Clywedog		49936	40	48	67	-11	38	1995	81	-14
	Derwent Valley	•	46692	48	42	47	-23	15	1995	55	-8
Yorkshire	Washburn	•	23373	50	44	44	-27	15	1995	50	-7
	Bradford Supply	•	40942	47	44	48	-25	16	1995	63	-15
Anglian	Grafham		55490	65	60	56	-26	44	1997	65	-9
	Rutland		116580	73	69	65	-14	59	1995	64	1
Thames	London[+]	•	202828	61	56	56	-21	46	1996	66	-10
	Farmoor	•	13822	76	68	68	-20	43	2003	87	-19
Southern	Bewl		31000	58	49	42	-18	33	1990	42	0
	Ardingly		4685	35	23	19	-44	15	2003	29	-10
Wessex	Clatworthy		5662	38	28	25	-38	14	2003	34	-9
	Bristol	•	38666	54	44	44	-19	24	1990	34	9
South West	Colliford		28540	49	39	33	-34	15	2022	43	-10
	Roadford		34500	55	43	35	-35	18	1995	61	-27
	Wimbleball		21320	34	21	17	-47	17	2026	26	-9
	Stithians		4967	40	27	22	-35	14	2022	43	-21
Welsh	Celyn & Brenig	•	131155	58	55	64	-19	48	1989	74	-10
	Brianne		62140	74	77	99	5	57	1995	100	-1
	Big Five	•	69762	53	47	56	-19	38	2003	57	-1
	Elan Valley	•	99106	54	50	68	-15	37	1995	57	11
Scotland(E)	Edinburgh/Mid-Lothian	•	97223	72	74	87	5	48	2003	75	12
	East Lothian	•	9317	60	51	60	-25	38	2003	50	10
Scotland(W)	Loch Katrine	•	110326	66	72	94	6	40	2003	94	0
	Daer		22494	74	87	99	8	42	2003	91	8
	Loch Thom		10721	69	79	90	0	63	2020	99	-9
Northern Ireland	Total[++]	•	56800	69	67	81	-1	39	1995	92	-11
	Silent Valley	•	20634	68	64	82	2	34	1995	100	-18

( ) figures in parentheses relate to gross storage • denotes reservoir groups *last occurrence

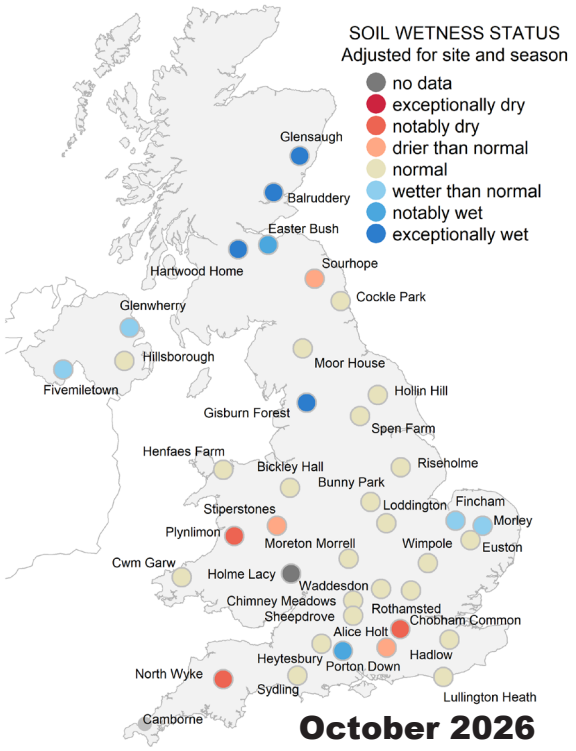
[+]some reservoirs in the London group were impacted by a previously planned outage

[++]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.

© UKCEH (2026).

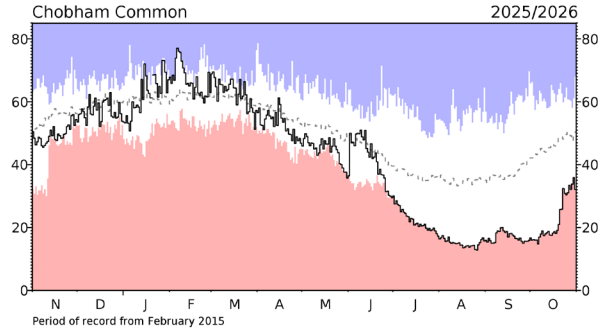
Soil Moisture

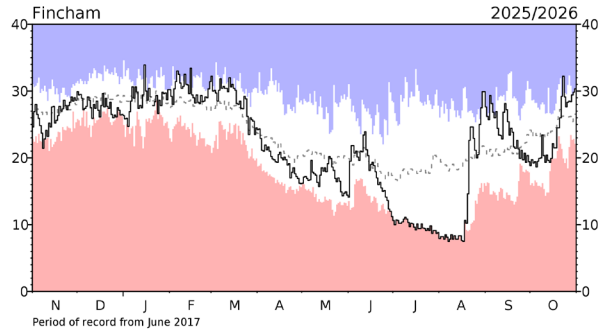


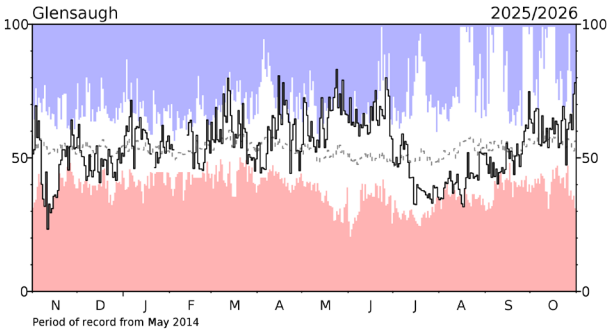
October 2026

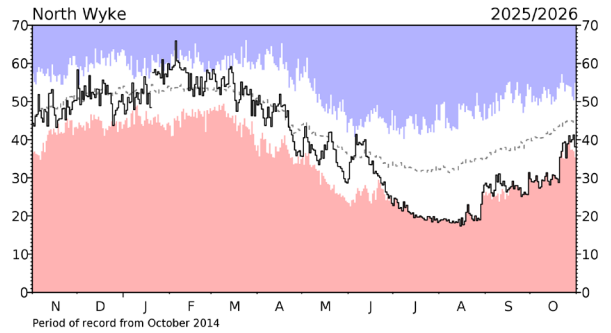
Daily mean soil moisture status at COSMOS-UK sites on the last day of the month, 31 October 2026. Soil wetness categories are adjusted for site specific characteristics, i.e. taking account of the possible range of soil wetness at each site, determined through period-of-record data and hindcast modelling.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

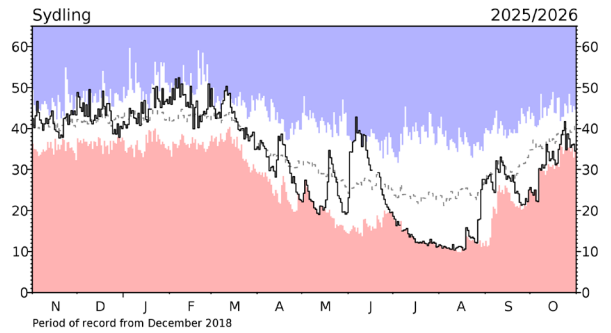
Soil moisture responses varied considerably across the COSMOS-UK network through October. Many sites showed appreciable increases in soil moisture (e.g. Bunny Park, Euston, Fincham, Rothamsted and Sydling) and some of the more northerly sites remained relatively wet throughout the month (e.g. Balruddery and Glensaugh). Several sites experienced alternating periods of wetting and drying during September and October, reflecting the intermittent nature of autumn rainfall rather than a uniform recovery across the network. By the end of October, many sites had returned towards their typical autumn range, but several remained below normal for the time of year (e.g. Alice Holt, Chobham Common and North Wyke), indicating that soil moisture deficits persisted at some locations despite the wetter conditions throughout the month. Overall, above-average rainfall during October helped reduce soil moisture deficits across much of the network. Nevertheless, site-to-site variability remained pronounced, with generally wetter conditions in northern and western regions and more persistent deficits at some southern and eastern sites.











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 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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