# Hydrological Summary

## *for the United Kingdom*

*July 2023*

### General

July was cool and unsettled, with heavy showers that caused some flash flooding. It was the third wettest July for the UK since 1939, and in Northern Ireland and some regions of England (North West, Yorkshire and Wessex) more than double the average rainfall was recorded. Correspondingly, river flows were widely above normal, with many notably or exceptionally high in the north of England and west of the UK. Soil moisture increased during July, ending the month close to saturation at COSMOS sites in the north and west, whilst restoring exceptionally dry soils to near-normal in the south. Groundwater levels continued their seasonal recessions, except in the most responsive aquifers. Reservoir stocks increased relative to average during July, recovering deficits for England and Scotland (most notably at Daer, from 21% to 3% below average). However, deficits remained at some impoundments in Scotland, Wales and the south-west. The unsettled conditions have continued into August, and the Hydrological Outlook is for normal or above normal river flows and groundwater levels across much of the UK. However, where reservoir deficits remain, average or above average rainfall over the coming months will be needed to alleviate any concerns for the management of water resources into the early autumn.

### Rainfall

An unseasonable succession of Atlantic low pressure systems kept conditions unsettled throughout July, albeit with some dry interludes. The first week, with southerly airflows, was largely dry in the south (except on the 4th), whilst Northern Ireland and western Scotland saw the first of the heavier rain on the 6th. A brief warm spell associated with a ridge of high pressure broke with intense thunderstorms on the 8th causing travel disruption (including the closure of motorway link roads in Birmingham). Low pressure systems returned, bringing frontal rain on the 10th and the 14th, and intensifying in north Wales and north-west England on the 15th. A quieter spell from 16th-21st ended with intense rainfall on the night of 22nd that affected Northern Ireland, England and Wales (e.g. 111mm was recorded at White Barrow, Devon) and there was property flooding in Northern Ireland (e.g. in Castlederg, County Tyrone). The last week was somewhat quieter, but there were further showers, heavy at times, mainly affecting the north and west. For the month as a whole, rainfall was above average across most of the UK and most notably in parts of Northern Ireland, north-west and south-west England. The monthly total for the UK was 170% of average, and Northern Ireland and the North West England region both registered their wettest July on record (in series from 1890). Following low rainfall in May and June, the three-month rainfall accumulations were moderately below average across Scotland, Wales and regions in south-east England, and moderately above average for Northern Ireland and the North West England region (at 125% and 121% of average, respectively).

### River Flows

River flows began July widely below average, although near-average in many groundwater-dominated catchments. In the responsive catchments of Scotland and Northern Ireland, there were sharp increases on the 6th to near- or above-average flow, and for the next fortnight, further responses to rainfall kept flows above average. Flow magnitudes were noteworthy on the 15th in the west (when the Welsh Dee recorded its second highest July peak flow in a series from 1969) and during 22nd-24th across Northern Ireland and the north of England. Flow responses saw peaks ranking in the top three for July (e.g. Mourne on the 22nd, Ribble, Camowen, Annacloy on the 23rd, all in series of 40 years or more). By the 24th, rivers in large catchments were also seeing high ranking peak flows (e.g. those recorded on the Aire and Lower Bann were the third and tenth highest in series from 1958 and 1980, respectively). Thereafter flows generally receded, with interruptions mainly in the north and west, until month-end. With repeated responses to rainfall, mean monthly flows were notably or exceptionally high on rivers in the west and north-west (the Cree, Ribble and Welsh Dee each recorded more than twice their respective average July flows, in series of 50 years or more). The Mourne, with more than three times its average July flow (in a series from 1982), established a new monthly maximum. Elsewhere, mean monthly flows were predominantly normal or above normal, although flows for some rivers in the east of the UK were below normal. Reflecting the high flows recorded on many rivers, Northern Ireland saw new maximum daily outflows established on the 15th and 22nd-25th (in a series from 1980), and the highest outflows for the month of July since 2007. Over the three months from May to July, notably or exceptionally low river flows reflected the rainfall deficits in Scotland and north-east England, contrasting with river flows in the south that were notably or exceptionally high (the Itchen recording its third highest May-July flow in a series from 1958).

### Soil Moisture and Groundwater

Soils rewetted during July, but substantial Soil Moisture Deficits (SMDs) remained in the south and east at month-end, as expected in the summer months. Accordingly, with the exception of Killyglen, levels in the Chalk receded during July and Westdean No. 3 was the only site with exceptionally high levels. Generally, levels dropped back to the above-normal or normal range across sites in the Southern and Chilterns Chalk although Dial Farm was an outlier with below normal levels. In Yorkshire, levels in the Chalk remained normal, however, the wet weather in Northern Ireland led to the highest monthly groundwater level in this series of 39 years. In the Jurassic limestones levels recessed throughout July but remained close to or slightly above the long-term average. Similarly, Permo-Triassic sandstone sites were in the normal range to above normal, although small rises in levels were recorded at Newbridge and Weir Farm. Most of the Magnesian and Carboniferous limestones sites were unchanged, with levels near the long-term average for the month. However, levels in the Carboniferous Limestone of south Wales at Greenfield Garage and Pant y Lladron rose slightly in response to above average rainfall and at the latter, the rise was sufficient for levels to move from below normal in June to above normal for July. A small recovery in levels in the Devonian sandstones at Feddan Junction during July led to a move from a record June low to levels just below normal.

National Hydrological Monitoring Programme
UK Centre for Ecology & Hydrology
BGS British Geological Survey

# *Rainfall . . . Rainfall . . .*

Met Office

## Rainfall accumulations and return period estimates

Percentages are from the 1991-2020 average.

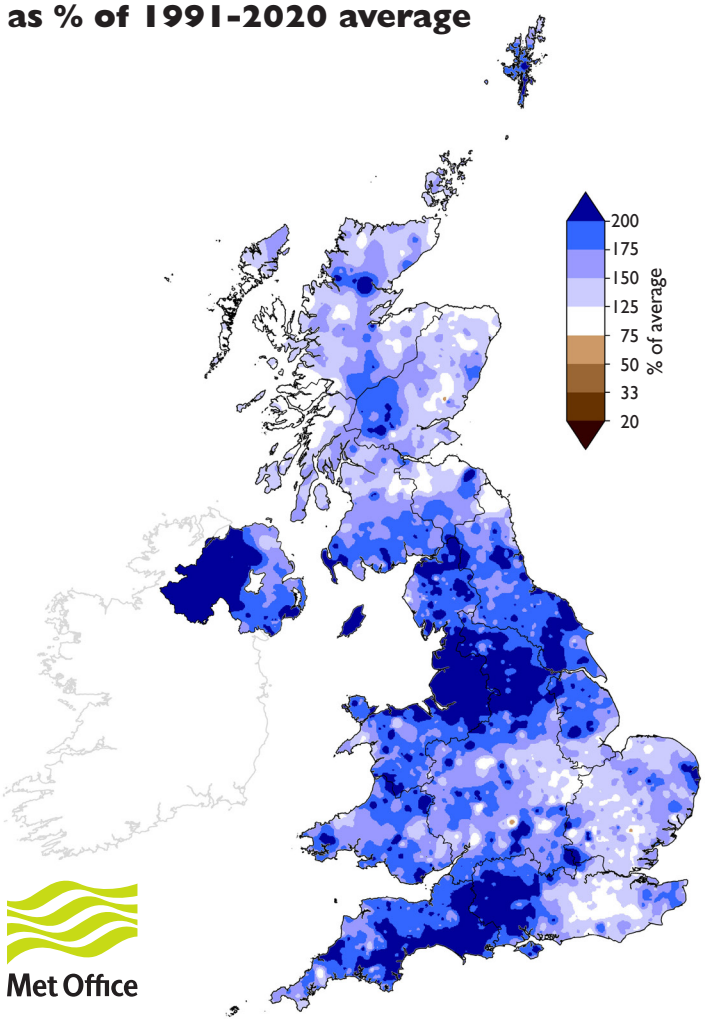
| Region | Rainfall | Jul 2023 | Jun23 – Jul23 | RP | May23 – Jul23 | RP | Feb23 – Jul23 | RP | Aug22 – Jul23 | RP |
|---|---|---|---|---|---|---|---|---|---|---|
| United Kingdom | mm | **140** | 192 | | 231 | | 477 | | 1190 | |
| | % | **170** | 120 | 5-10 | 100 | 2-5 | 99 | 2-5 | 103 | 5-10 |
| England | mm | **120** | 161 | | 200 | | 398 | | 945 | |
| | % | **181** | 123 | 5-10 | 106 | 2-5 | 108 | 2-5 | 109 | 5-10 |
| Scotland | mm | **155** | 224 | | 264 | | 564 | | 1511 | |
| | % | **150** | 114 | 5-10 | 92 | 2-5 | 88 | 2-5 | 96 | 2-5 |
| Wales | mm | **177** | 223 | | 258 | | 569 | | 1490 | |
| | % | **179** | 117 | 2-5 | 93 | 2-5 | 96 | 2-5 | 102 | 2-5 |
| Northern Ireland | mm | **185** | 258 | | 307 | | 579 | | 1237 | |
| | % | **207** | 151 | 20-35 | 125 | 8-12 | 116 | 10-20 | 107 | 8-12 |
| England & Wales | mm | **128** | 170 | | 208 | | 421 | | 1019 | |
| | % | **181** | 122 | 5-10 | 103 | 2-5 | 106 | 2-5 | 108 | 5-10 |
| North West | mm | **208** | 282 | | 314 | | 563 | | 1371 | |
| | % | **212** | 153 | 25-40 | 121 | 5-10 | 107 | 5-10 | 107 | 5-10 |
| Northumbria | mm | **128** | 175 | | 207 | | 368 | | 897 | |
| | % | **172** | 119 | 5-10 | 101 | 2-5 | 93 | 2-5 | 99 | 2-5 |
| Severn-Trent | mm | **113** | 164 | | 197 | | 380 | | 843 | |
| | % | **171** | 123 | 5-10 | 103 | 2-5 | 106 | 2-5 | 105 | 2-5 |
| Yorkshire | mm | **138** | 180 | | 208 | | 386 | | 897 | |
| | % | **202** | 128 | 5-10 | 106 | 2-5 | 101 | 2-5 | 103 | 2-5 |
| Anglian | mm | **85** | 110 | | 152 | | 303 | | 657 | |
| | % | **153** | 99 | 2-5 | 96 | 2-5 | 107 | 2-5 | 105 | 2-5 |
| Thames | mm | **89** | 126 | | 169 | | 363 | | 844 | |
| | % | **166** | 119 | 2-5 | 106 | 2-5 | 117 | 2-5 | 117 | 5-10 |
| Southern | mm | **83** | 112 | | 145 | | 357 | | 1014 | |
| | % | **159** | 106 | 2-5 | 92 | 2-5 | 110 | 2-5 | 124 | 15-25 |
| Wessex | mm | **128** | 160 | | 213 | | 452 | | 1080 | |
| | % | **209** | 132 | 5-10 | 119 | 2-5 | 122 | 5-10 | 120 | 15-25 |
| South West | mm | **156** | 190 | | 248 | | 552 | | 1396 | |
| | % | **190** | 119 | 2-5 | 108 | 2-5 | 109 | 2-5 | 112 | 5-10 |
| Welsh | mm | **170** | 216 | | 251 | | 552 | | 1442 | |
| | % | **178** | 117 | 2-5 | 93 | 2-5 | 97 | 2-5 | 103 | 2-5 |
| Highland | mm | **155** | 235 | | 272 | | 624 | | 1636 | |
| | % | **144** | 113 | 2-5 | 87 | 2-5 | 83 | 2-5 | 88 | 2-5 |
| North East | mm | **116** | 167 | | 210 | | 414 | | 1066 | |
| | % | **141** | 103 | 2-5 | 91 | 2-5 | 91 | 2-5 | 100 | 2-5 |
| Tay | mm | **155** | 209 | | 243 | | 510 | | 1445 | |
| | % | **159** | 113 | 5-10 | 91 | 2-5 | 88 | 2-5 | 104 | 5-10 |
| Forth | mm | **139** | 199 | | 231 | | 469 | | 1271 | |
| | % | **149** | 111 | 5-10 | 92 | 2-5 | 89 | 2-5 | 102 | 5-10 |
| Tweed | mm | **138** | 186 | | 221 | | 416 | | 1102 | |
| | % | **161** | 113 | 5-10 | 97 | 2-5 | 90 | 2-5 | 102 | 2-5 |
| Solway | mm | **201** | 270 | | 309 | | 623 | | 1668 | |
| | % | **182** | 130 | 10-15 | 104 | 2-5 | 97 | 2-5 | 106 | 10-15 |
| Clyde | mm | **183** | 274 | | 321 | | 674 | | 1802 | |
| | % | **144** | 117 | 5-10 | 96 | 2-5 | 88 | 2-5 | 95 | 2-5 |

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

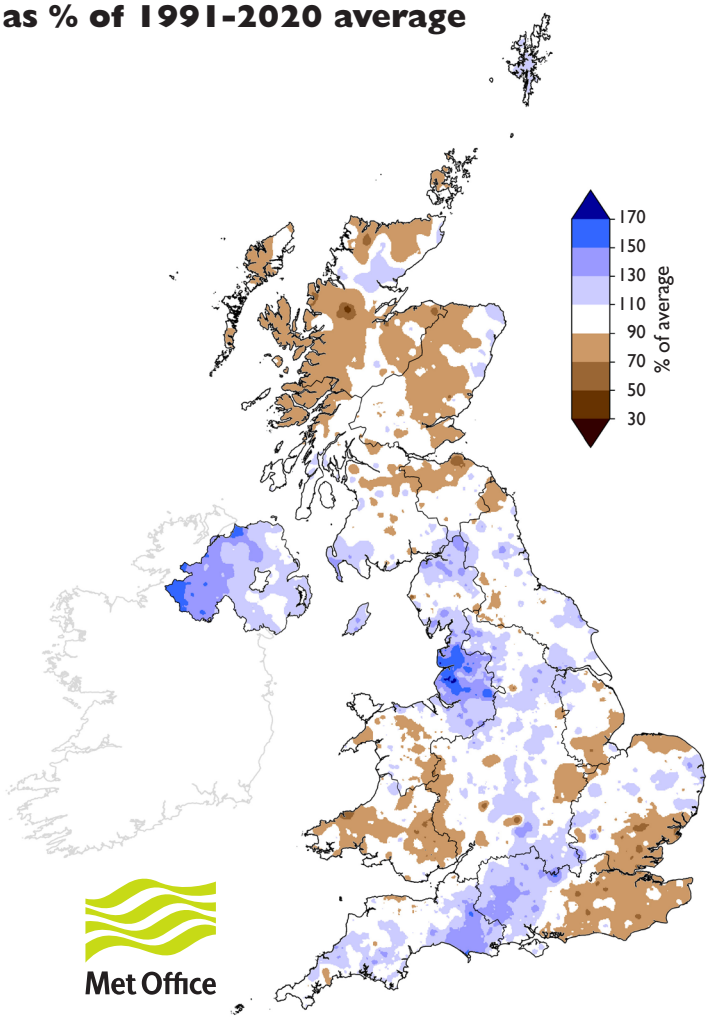
**Important note:** Figures in the above table may be quoted provided their source is acknowledged. Where appropriate, specific mention must be made of the uncertainties associated with the return period estimates. The RP estimates are based on data provided by the Met Office and reflect climatic variability since 1836; 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 2023 are provisional. Source: Data from HadUK-Grid dataset at 1km resolution v1.2.0.0.

# *Rainfall . . . Rainfall . . .*

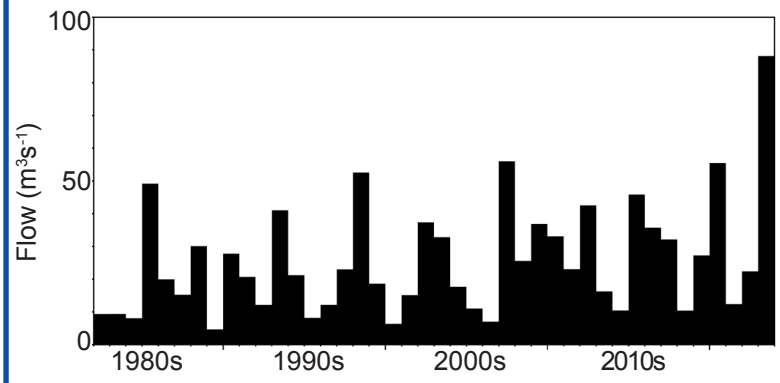
**July 2023 rainfall**
**as % of 1991-2020 average**



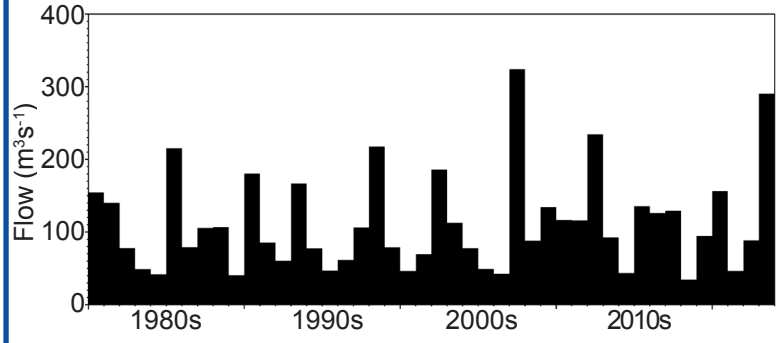

**May 2023 - July 2023 rainfall**
**as % of 1991-2020 average**




**July mean river flows for the Mourne**




**July mean outflows for Northern Ireland**




## UK Hydrological Outlook

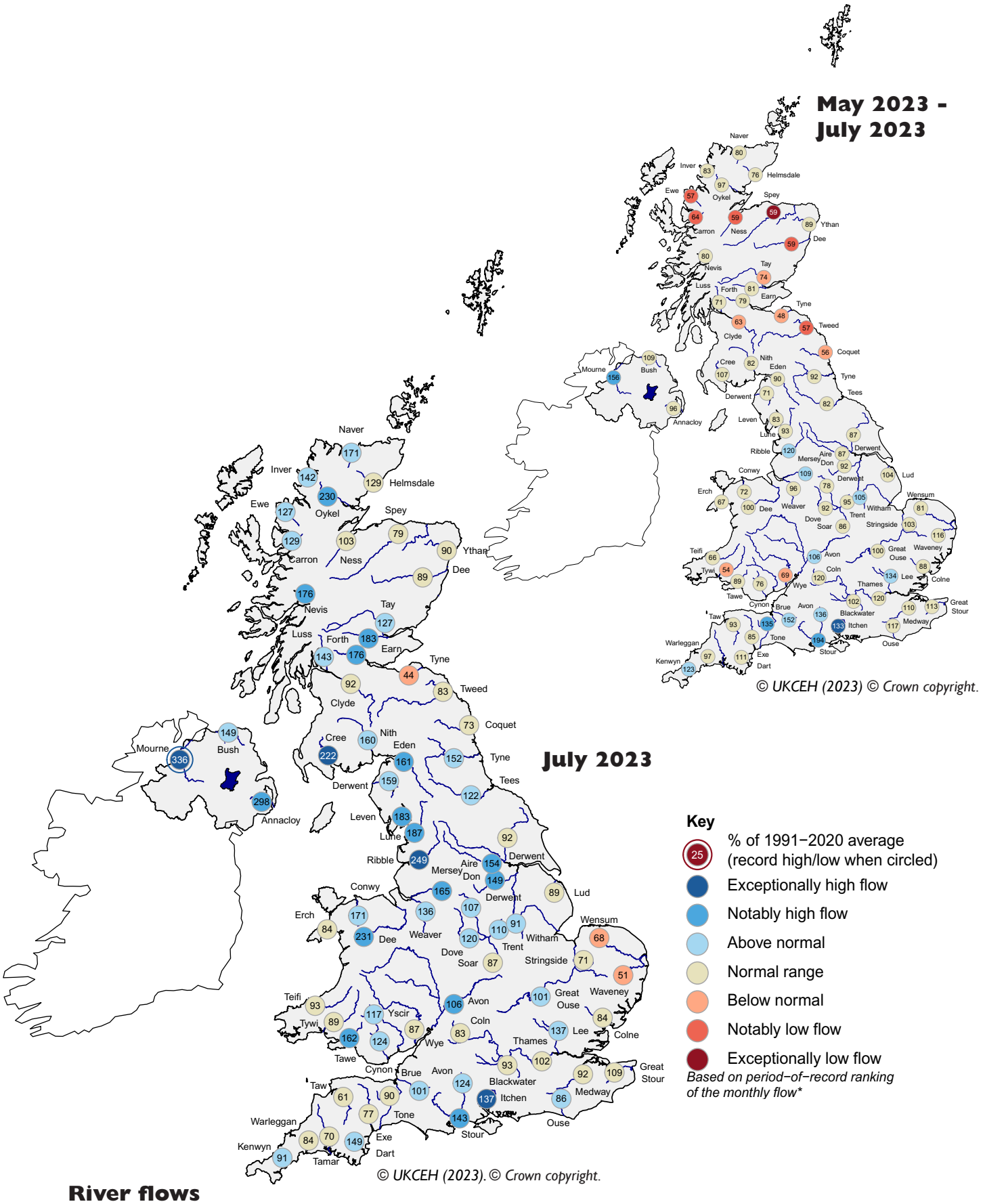
The Hydrological Outlook provides an insight into future hydrological conditions across the UK. Specifically it describes likely trajectories for river flows and groundwater levels on a monthly basis, with particular focus on the next three months.

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

**Period:** **from August 2023**
**Issued:** **08.08.2023**
**using data to the end of July 2023**

Following an exceptionally wet July, river flows across the UK are expected to be normal to above normal for August, and over the next three months. Groundwater levels are likely to be within the normal range across the majority of the UK, though above normal levels are expected in southern England in August, and normal to below normal groundwater levels are likely in Wales over the next three months.

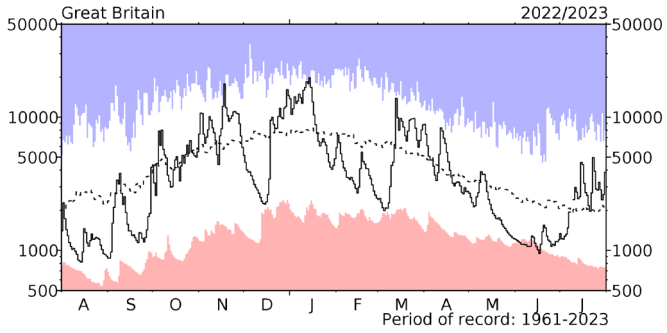
# *River flow . . . River flow . . .*

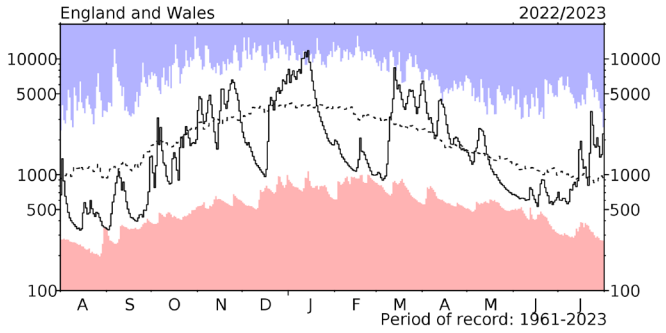


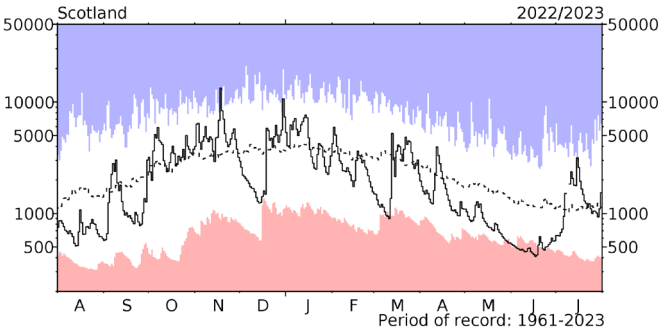

## River flows

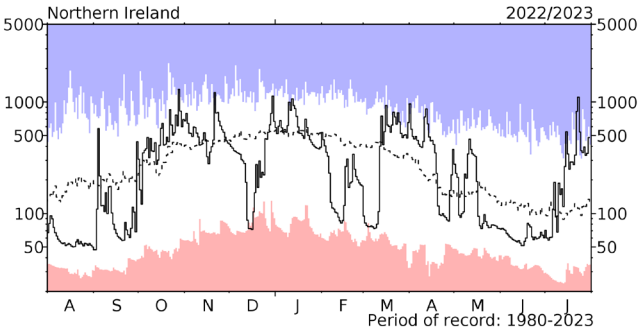
*Comparisons based on percentage flows alone can be misleading. A given percentage flow can represent extreme drought conditions in permeable catchments where flow patterns are relatively stable but be well within the normal range in impermeable catchments where the natural variation in flows is much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

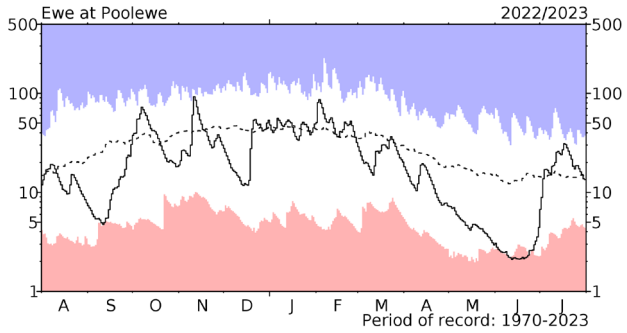
# River flow . . . River flow . . .

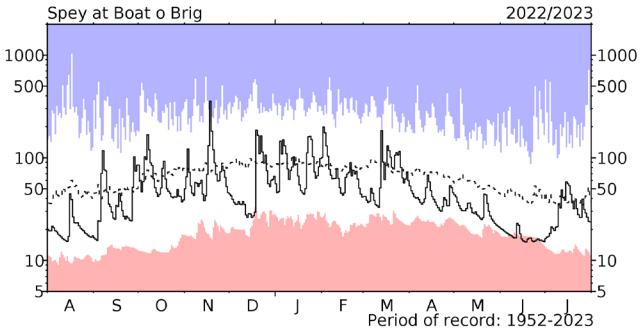


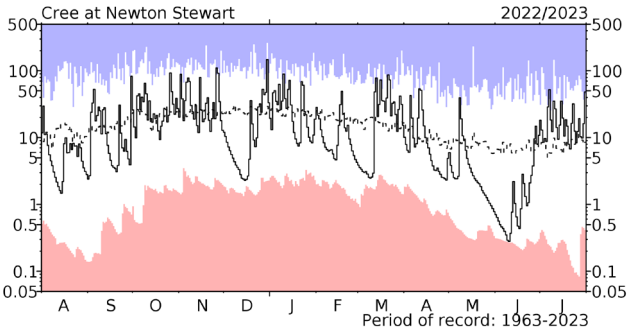



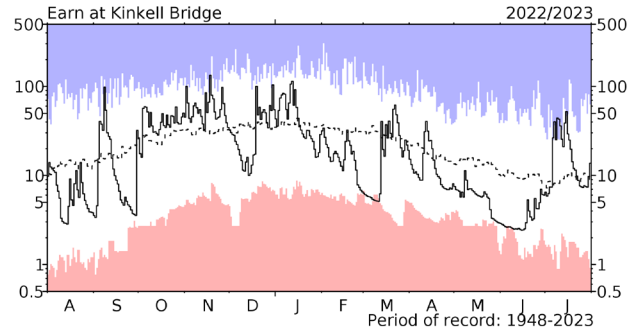



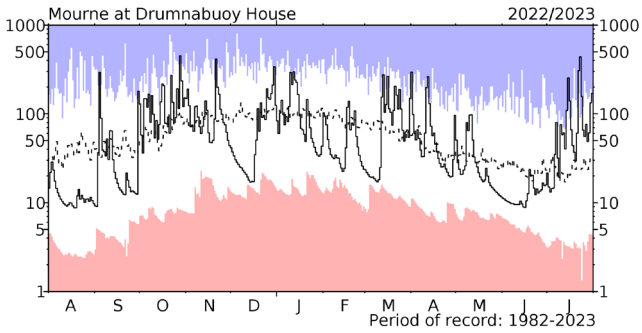



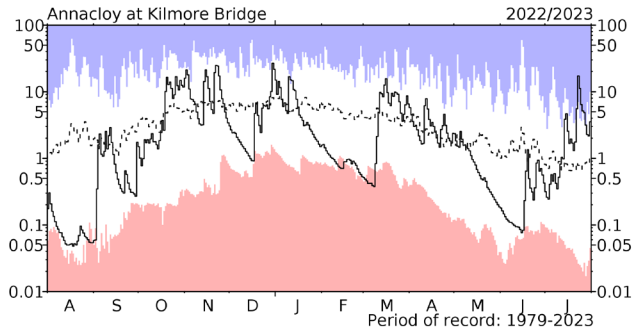



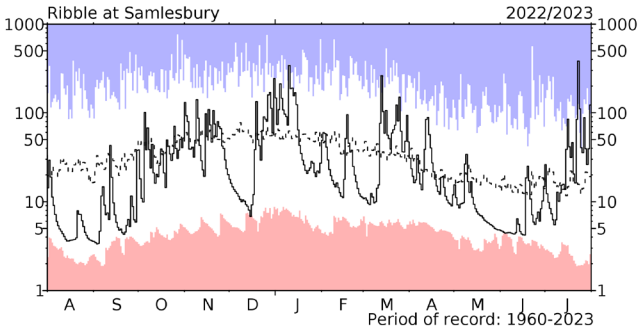



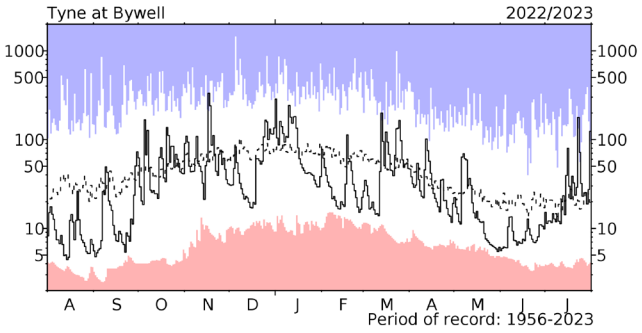



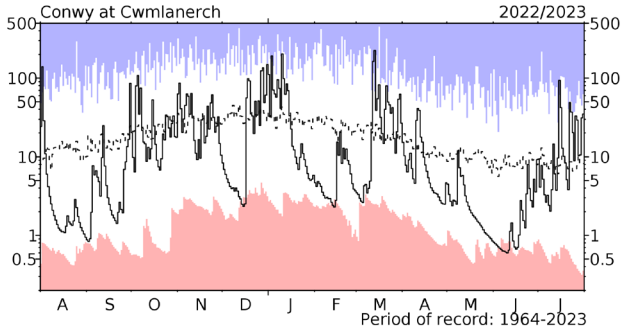

## River flow hydrographs

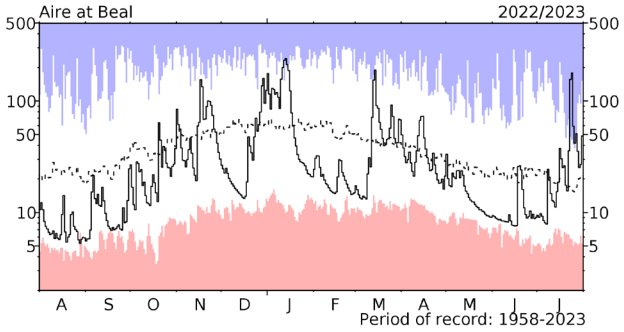
*The river flow hydrographs show the daily mean flows (measured in $m^3s^{-1}$) together with the maximum and minimum daily flows prior to August 2022 (shown by the shaded areas). Daily flows falling outside the maximum/minimum range are indicated where the bold trace enters the shaded areas. The dashed line represents the period-of-record average daily flow.

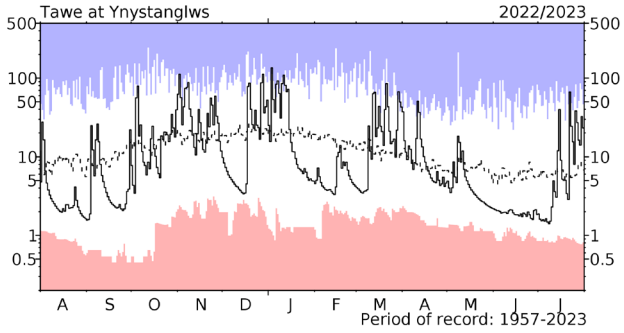
# River flow . . . River flow . . .

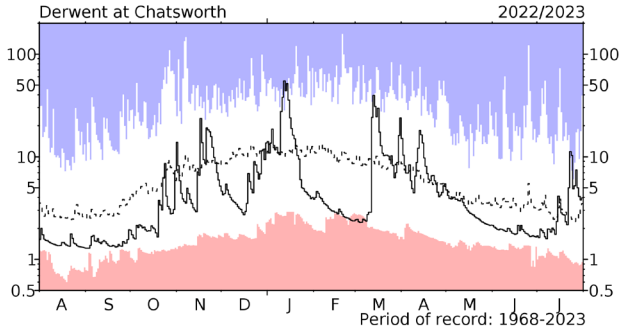


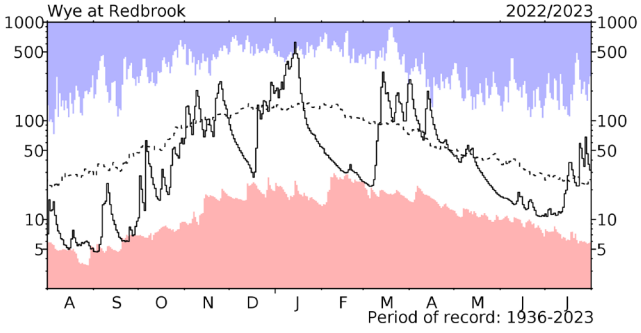



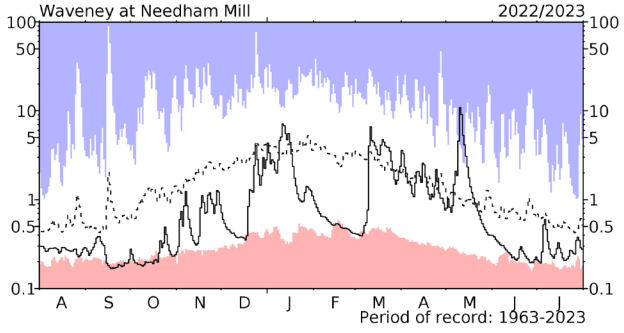



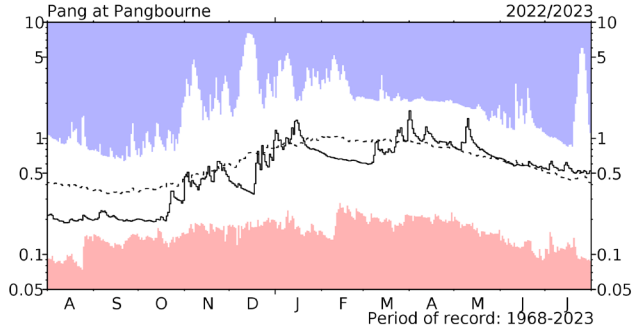



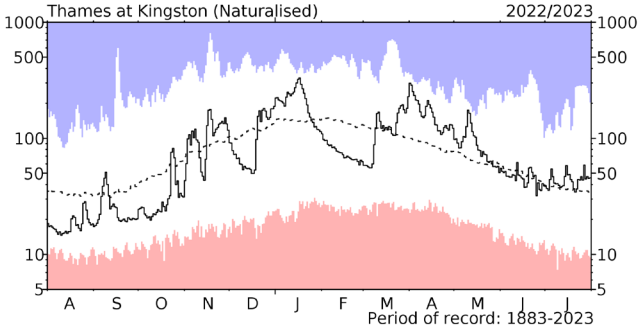



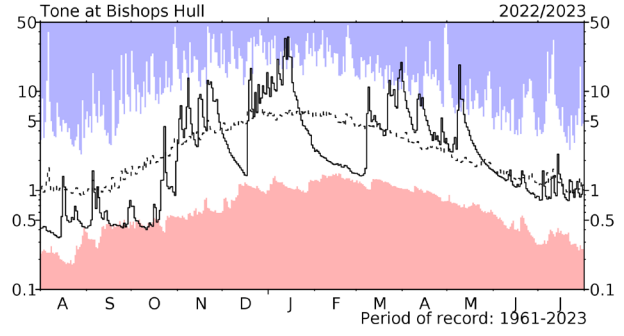



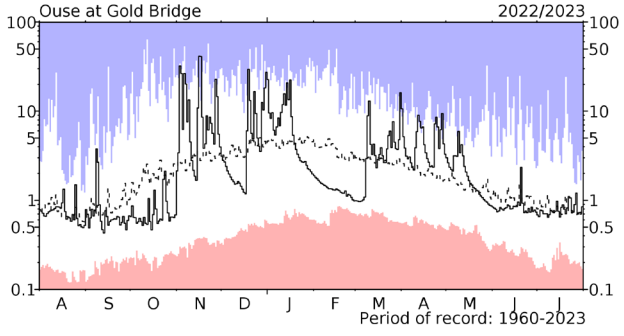



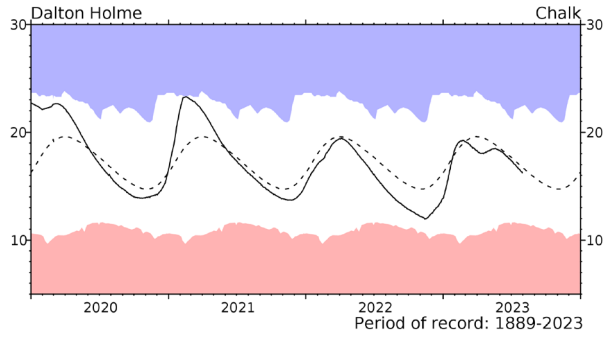



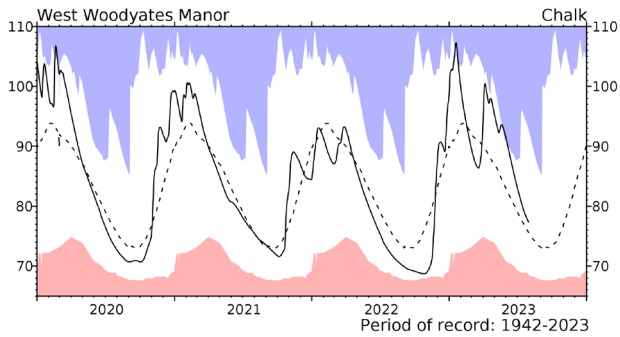



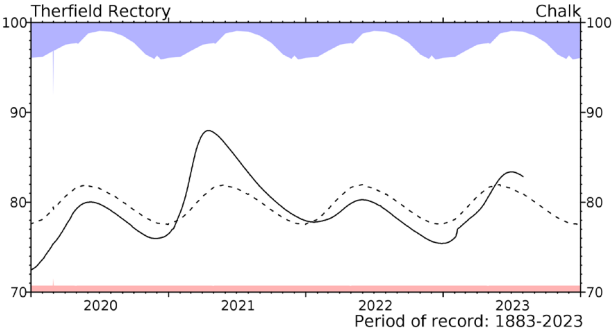



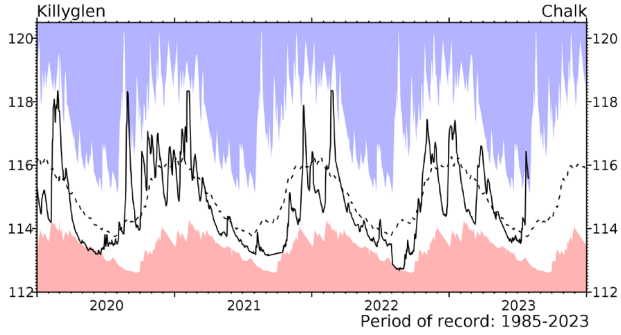



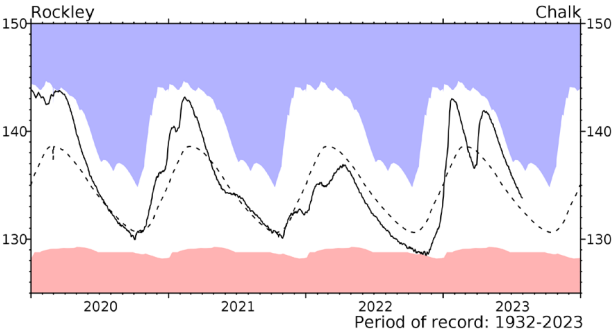
# Groundwater…Groundwater

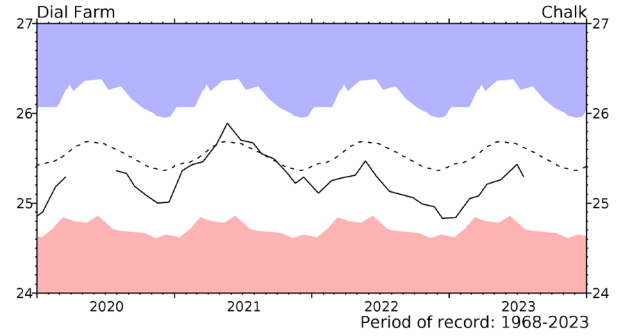


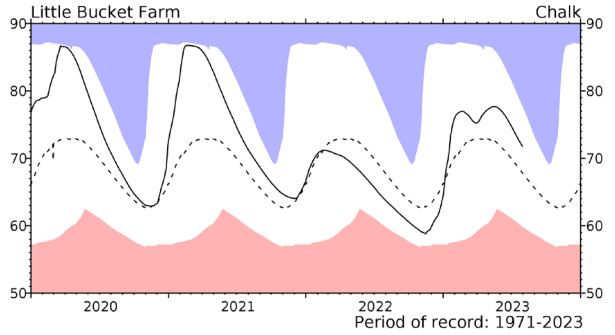



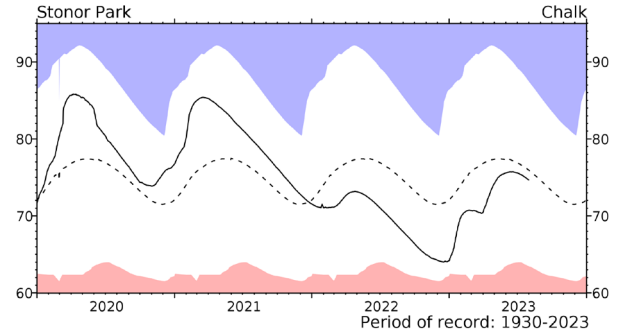



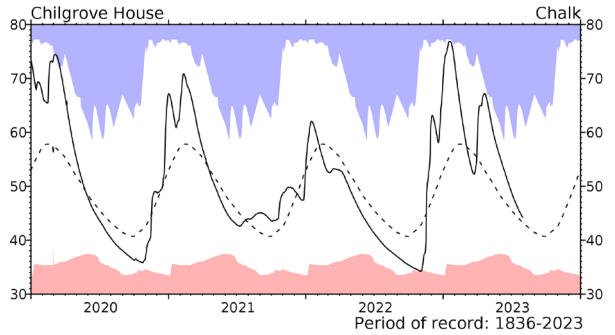



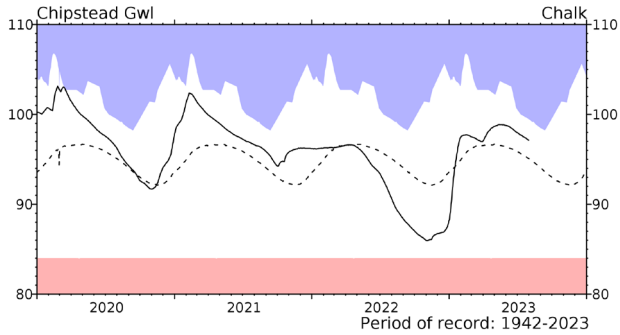



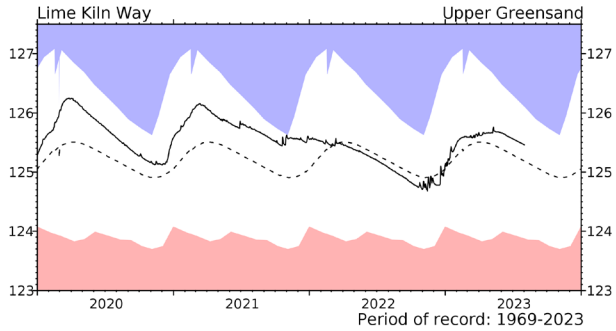



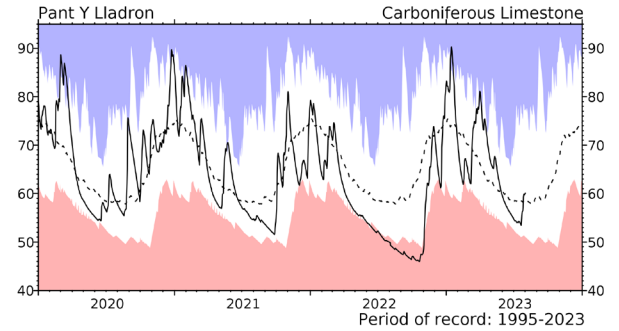



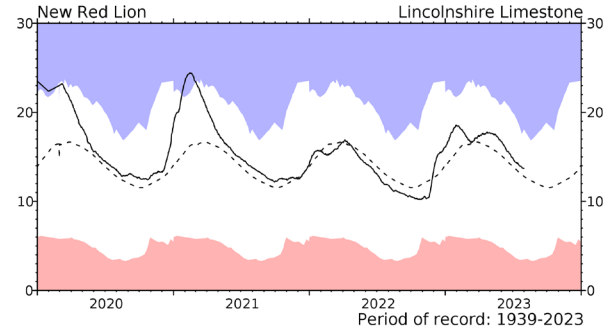



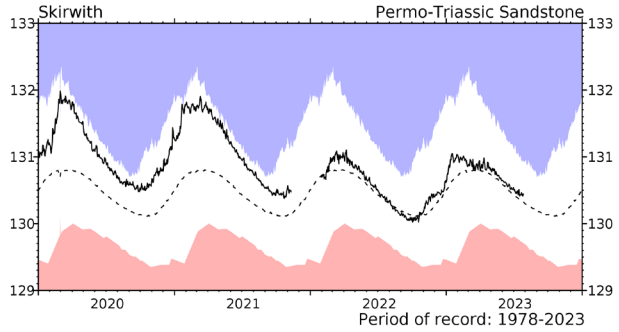

Groundwater levels (measured in metres above ordnance datum) normally rise and fall with the seasons, reaching a peak in the spring following replenishment through the winter (when evaporation losses are low and soil moist). They decline through the summer and early autumn. This seasonal variation is 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 2019. 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.

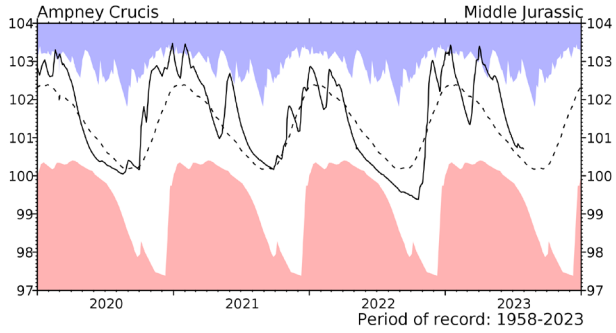
# Groundwater… Groundwater

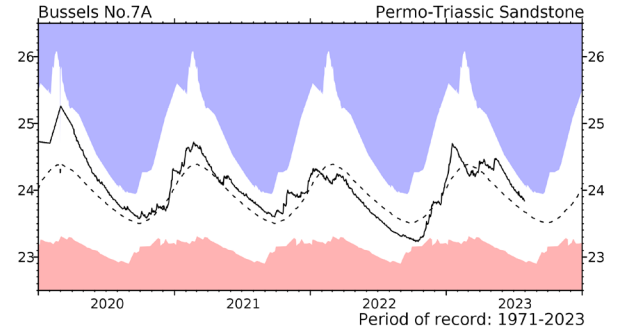


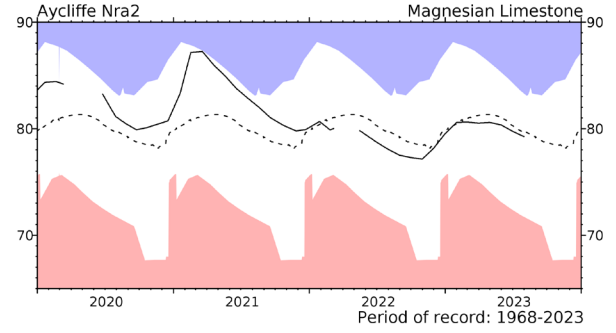



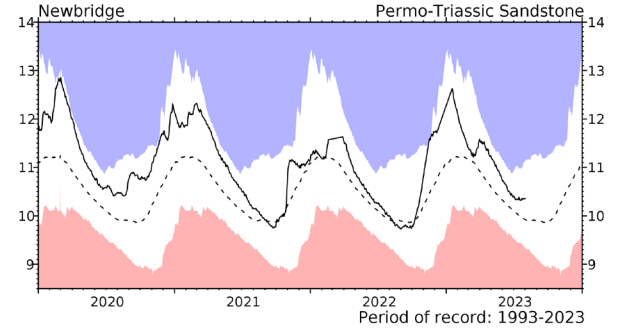



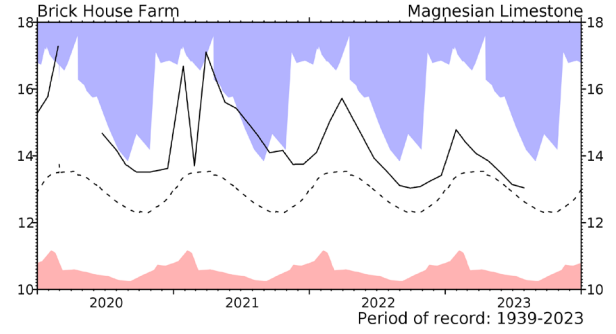



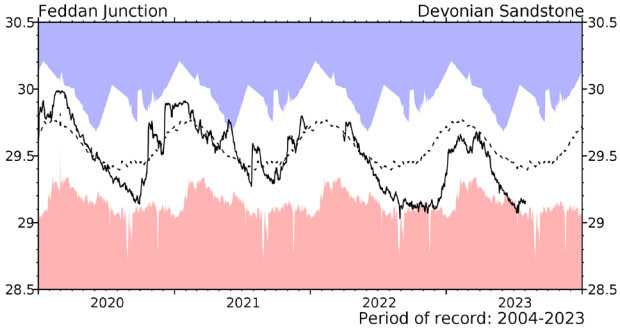



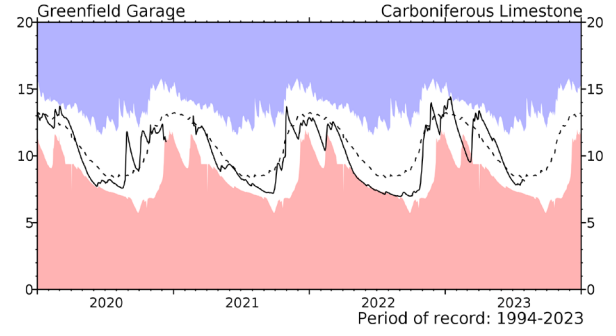



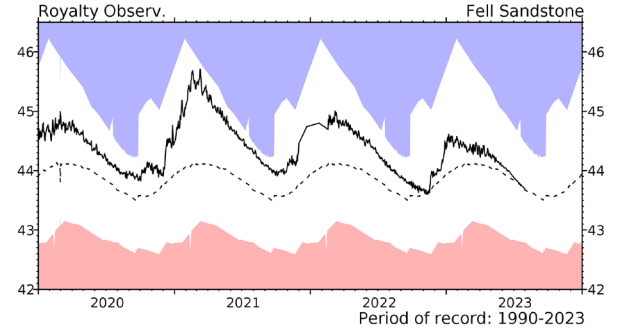



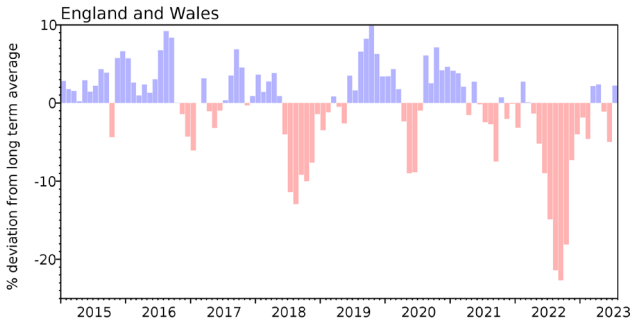




## Groundwater levels - July 2023

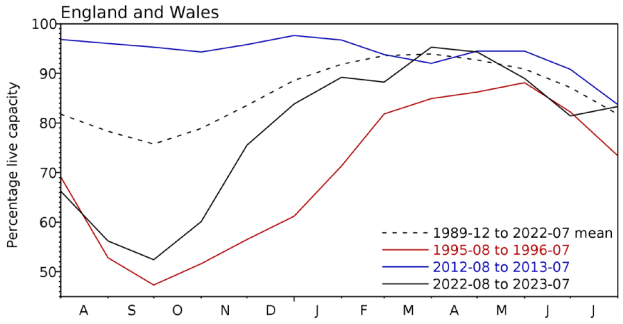
The calculation of ranking has been modified from that used in summaries published prior to October 2012. It is now based on a comparison between the most recent level and levels for the same date during previous years of record. Where appropriate, levels for earlier years may have been interpolated. 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 . . . 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) | 2023 May | 2023 Jun | 2023 Jul | Jul Anom. | Min Jul | Year* of min | 2022 Jul | Diff 23-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| North West | N Command Zone | • | 124929 | 80 | 63 | 68 | 5 | 23 | 1984 | 53 | 15 |
| | Vyrnwy | | 55146 | 92 | 89 | 87 | 10 | 45 | 1984 | 57 | 30 |
| Northumbrian | Teesdale | • | 87936 | 77 | 66 | 76 | 3 | 45 | 1989 | 73 | 4 |
| | Kielder | | (199175) | 93 | 89 | 98 | 9 | 66 | 1989 | 82 | 15 |
| Severn-Trent | Clywedog | | 49936 | 99 | 85 | 91 | 6 | 50 | 1976 | 66 | 25 |
| | Derwent Valley | • | 46692 | 67 | 70 | 79 | 7 | 43 | 1996 | 45 | 34 |
| Yorkshire | Washburn | • | 23373 | 93 | 76 | 78 | 5 | 50 | 2022 | 50 | 28 |
| | Bradford Supply | • | 40942 | 84 | 66 | 73 | 2 | 38 | 1995 | 47 | 26 |
| Anglian | Grafham | | (55490) | 94 | 94 | 94 | 5 | 66 | 1997 | 78 | 16 |
| | Rutland | | (116580) | 93 | 91 | 91 | 4 | 74 | 1995 | 83 | 8 |
| Thames | London | • | 202828 | 97 | 95 | 97 | 11 | 73 | 1990 | 75 | 22 |
| | Farmoor | • | 13822 | 99 | 98 | 99 | 3 | 84 | 1990 | 89 | 11 |
| Southern | Bewl | | 31000 | 98 | 92 | 87 | 11 | 45 | 1990 | 64 | 23 |
| | Ardingly | | 4685 | 100 | 91 | 77 | -7 | 57 | 2022 | 57 | 20 |
| Wessex | Clatworthy | | 5662 | 97 | 83 | 73 | 0 | 43 | 1992 | 60 | 13 |
| | Bristol | • | (38666) | 97 | 87 | 81 | 6 | 53 | 1990 | 62 | 19 |
| South West | Colliford | | 28540 | 68 | 61 | 57 | -19 | 43 | 2022 | 43 | 13 |
| | Roadford | | 34500 | 68 | 62 | 57 | -19 | 46 | 1996 | 60 | -3 |
| | Wimbleball | | 21320 | 96 | 84 | 75 | -2 | 49 | 2022 | 49 | 26 |
| | Stithians | | 4967 | 94 | 83 | 73 | 3 | 39 | 1990 | 44 | 29 |
| Welsh | Celyn & Brenig | • | 131155 | 85 | 76 | 71 | -16 | 65 | 1989 | 65 | 6 |
| | Brianne | | 62140 | 96 | 86 | 90 | 1 | 64 | 2022 | 64 | 26 |
| | Big Five | • | 69762 | 88 | 74 | 73 | -3 | 41 | 1989 | 54 | 19 |
| | Elan Valley | • | 99106 | 90 | 76 | 76 | -5 | 53 | 2022 | 53 | 23 |
| Scotland(E) | Edinburgh/Mid-Lothian | • | 97223 | 89 | 82 | 87 | 4 | 51 | 1998 | 77 | 10 |
| | East Lothian | • | 9317 | 100 | 91 | 89 | -1 | 72 | 1992 | 80 | 9 |
| Scotland(W) | Loch Katrine | • | 110326 | 78 | 72 | 85 | 9 | 53 | 2000 | 88 | -3 |
| | Daer | | 22494 | 73 | 62 | 77 | -3 | 54 | 2021 | 71 | 6 |
| | Loch Thom | | 10721 | 83 | 70 | 70 | -14 | 55 | 2021 | 82 | -12 |
| Northern Ireland | Total+ | • | 56800 | 93 | 80 | 92 | 14 | 54 | 1995 | 77 | 15 |
| | Silent Valley | • | 20634 | 94 | 80 | 92 | 18 | 42 | 2000 | 73 | 19 |

( ) figures in parentheses relate to gross storage

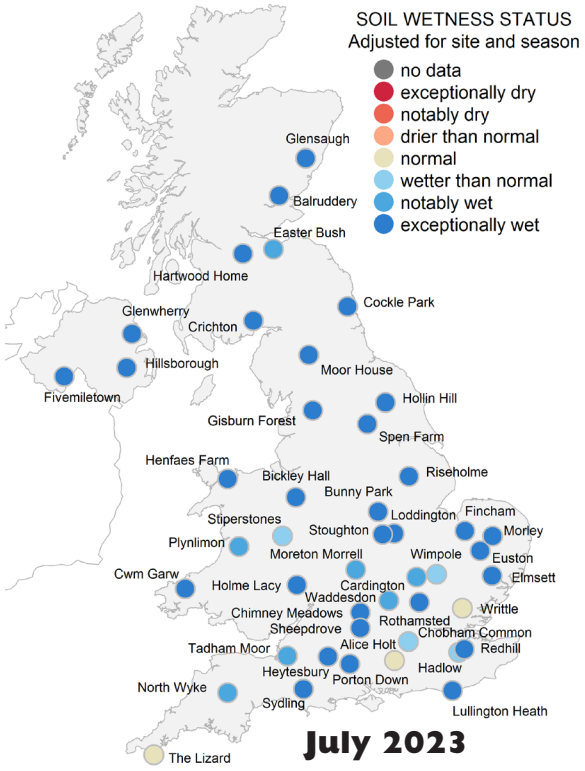
• denotes reservoir groups

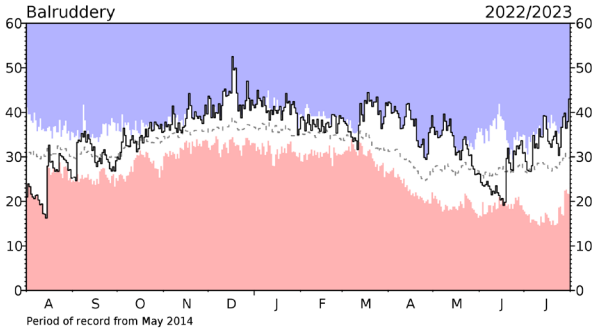
*last occurrence

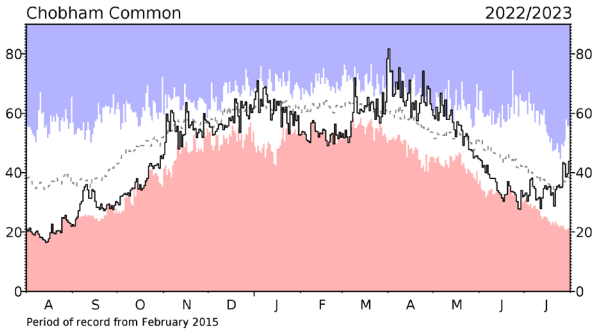
+ excludes Lough Neagh

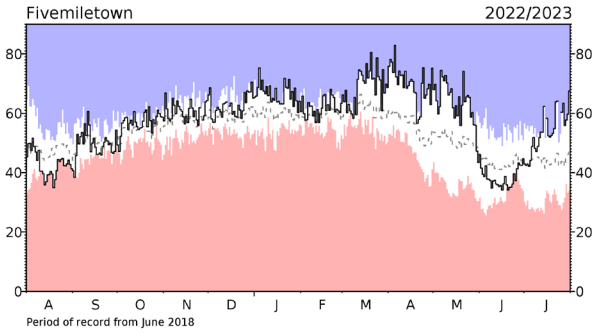
Details of the individual reservoirs in each of the groupings listed above are available on request. The percentages given in the Average and Minimum storage columns relate to the 1988-2012 period except for West of Scotland and Northern Ireland where data commence in the mid-1990s. In some gravity-fed 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.

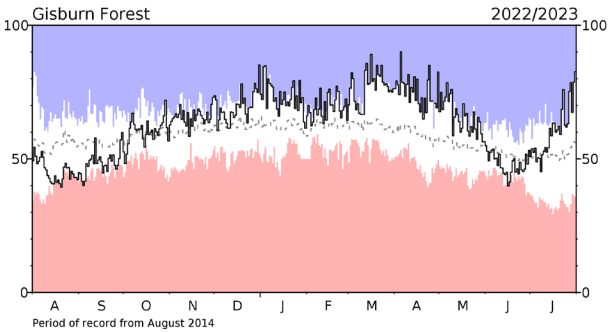
# Soil Moisture . . . Soil Moisture

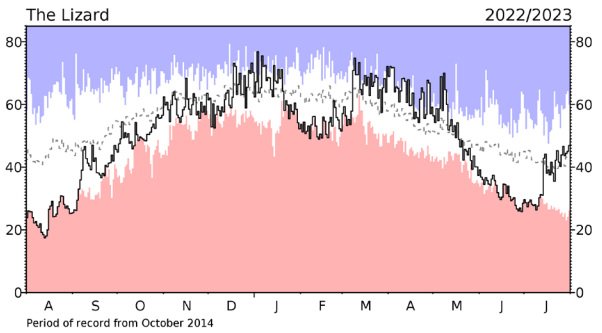



The high levels of rainfall in July led to soil moisture levels rising throughout the month at all COSMOS-UK sites. At the end of the month, soils at some sites are nearing saturation, particularly in Northern Ireland (e.g. Fivemiletown), Scotland (e.g. Balruddery) and Northwest England (e.g. Gisburn Forest). At other sites however, the increase in precipitation restored soil moisture from June's exceptionally dry levels to near normal levels for this time of year, particularly for sites in the South of England (e.g. Chobham Common and The Lizard) and at Sourhope in the Scottish Borders.

Overall, soil moisture levels rose throughout July due to high amounts of precipitation and mild temperatures.

## 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, borehole levels, and reservoir stocks.

The Hydrological Summary is supported by the Natural Environment Research Council award number NE/R016429/1 as part of the UK-SCAPE programme delivering National Capability.

## Data Sources

The NHMP depends on the active cooperation of many data suppliers. 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. In all cases the data are subject to revision following validation (high flow and low flow data in particular may be subject to significant revision).

Details of reservoir stocks are provided by the Water Service Companies, the EA, Scottish Water and Northern Ireland Water.

The Hydrological Summary and other NHMP outputs may also refer to and/or map soil moisture data for the UK. 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

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.

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:

Tel: 01491 692599
Email: nhmp@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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