

Monthly water situation report: Thames area

1 Summary - July 2026

It was the driest July for Thames area since records began in 1871. Thames area received just 1mm of rainfall in July, around 1% of the long term average (LTA). The Environment Agency declared drought status for Thames area during July. The end of month soil moisture deficits (SMDs) were much higher than expected for the time of year. Monthly mean flows decreased at all river indicator sites in Thames area. One-third of these sites were notably low, while a further third were exceptionally low. Groundwater levels continued their seasonal decline, with levels across Thames area ranging from notably low to notably high at the end of July.

1.1 Rainfall

It was the driest July for Thames area since records began in 1871. Just 1mm of rainfall was recorded in July, around 1% of the LTA, and rainfall was exceptionally low across all hydrological areas. July 1885 was the second driest on record, with 6.6mm of rainfall, followed by July 2022 as the third driest, with 7.3mm. Two hydrological areas, Upper Thames and Lower Wey, received less than 1mm of rainfall in July. The summer so far (April to July) has been the fourth driest on record, with just under half the expected rainfall. Only 1921, 1976 and 1990 were drier over the same period. For comparison, the drought year of 2022 ranked as only the eighth driest April to July period on record.

1.2 Soil moisture deficit and recharge

By the end of July, SMDs across most hydrological areas were significantly above the LTA, with the Cotswolds East and Cotswolds West hydrological areas exceeding twice their respective LTAs. Given the lack of rainfall, there was no effective rainfall across Thames area.

1.3 River flows

Monthly mean flows decreased at all indicator sites in Thames area. Five of our 15 indicator sites were notably low, while a further 5 were exceptionally low. The rivers with exceptionally low flows were the River Thame at Wheatley, the River Coln at Bibury, the River Kennet at Calcot, and the River Thames at Windsor and Kingston (naturalised). The River Ock at Abingdon was below normal, while the remaining 4 sites were normal for the time of year.

1.4 Groundwater levels

Groundwater levels continued their seasonal decline at all indicator sites in July. At the end of the month, 5 of our 11 indicator sites remained normal for the time of year. Groundwater levels in the chalk and Lower Greensand aquifers remained relatively resilient, due to storage of the

high winter rainfall. Oolite aquifers were less resilient due to lower storage capacity. Levels at Jackaments Bottom (Inferior Oolite) remained notably low, while Rockley (Berkshire Downs Chalk) remained below normal. The Lower Greensand sites continued to have higher levels than typical for the time of year, with above normal levels at Frith Cottage and notably high levels at The Flashes. The only changes were at Ampney Crucis (Great Oolite) and Model Farm (Upper Greensand), where groundwater levels fell from normal at the end of June to below normal at the end of July.

1.5 Reservoir stocks

Farmoor Reservoir's storage decreased to 91.8% at the end of the month, down from 98.9% at the end of June, and was below the LTA for the time of year. Storage in the Lower Thames Reservoirs also decreased, ending the month at 72.4%, down from 88.1% at the end of June, and was also below the LTA.

1.6 Environmental impact

At the end of July, 48 abstraction licences were having their flows constrained to protect the environment.

Author: Thames Area Groundwater Resources and Hydrology, enquiriesWT@environment-agency.gov.uk

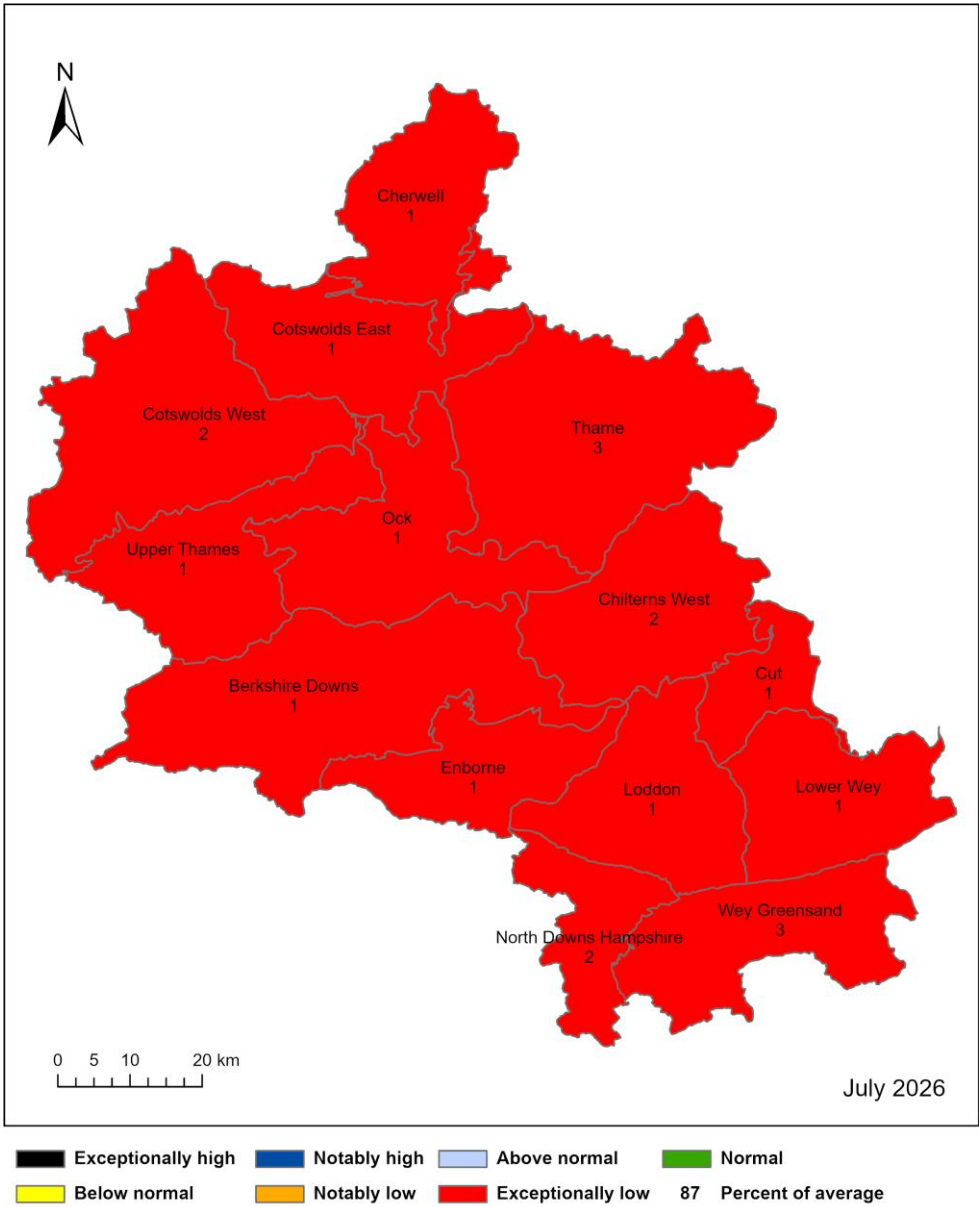
Contact Details: 030708 506 506

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2 Rainfall

2.1 Rainfall map current month

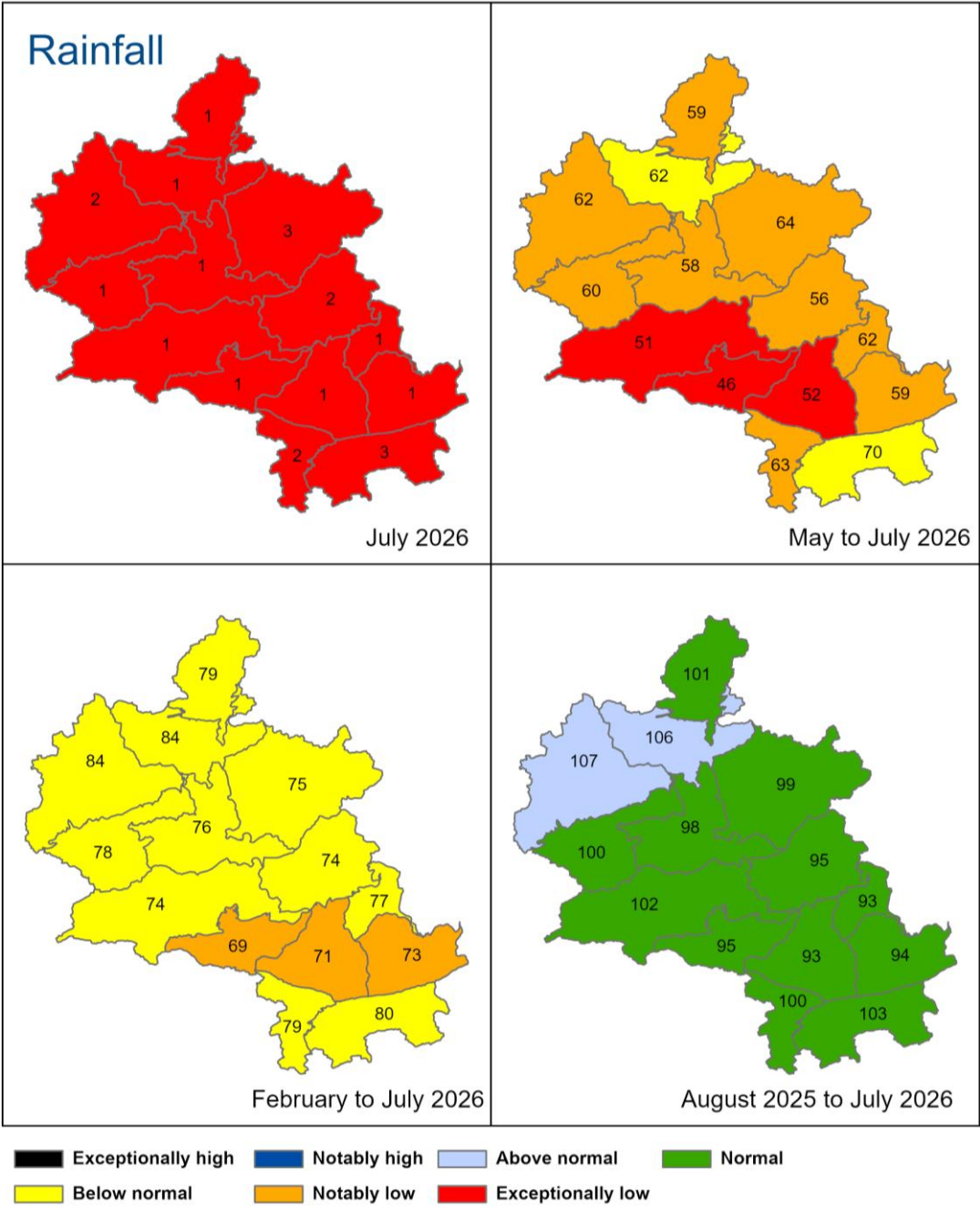
Figure 2.1: Total rainfall for hydrological areas for July 2026, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2026).

2.2 Rainfall map cumulative totals

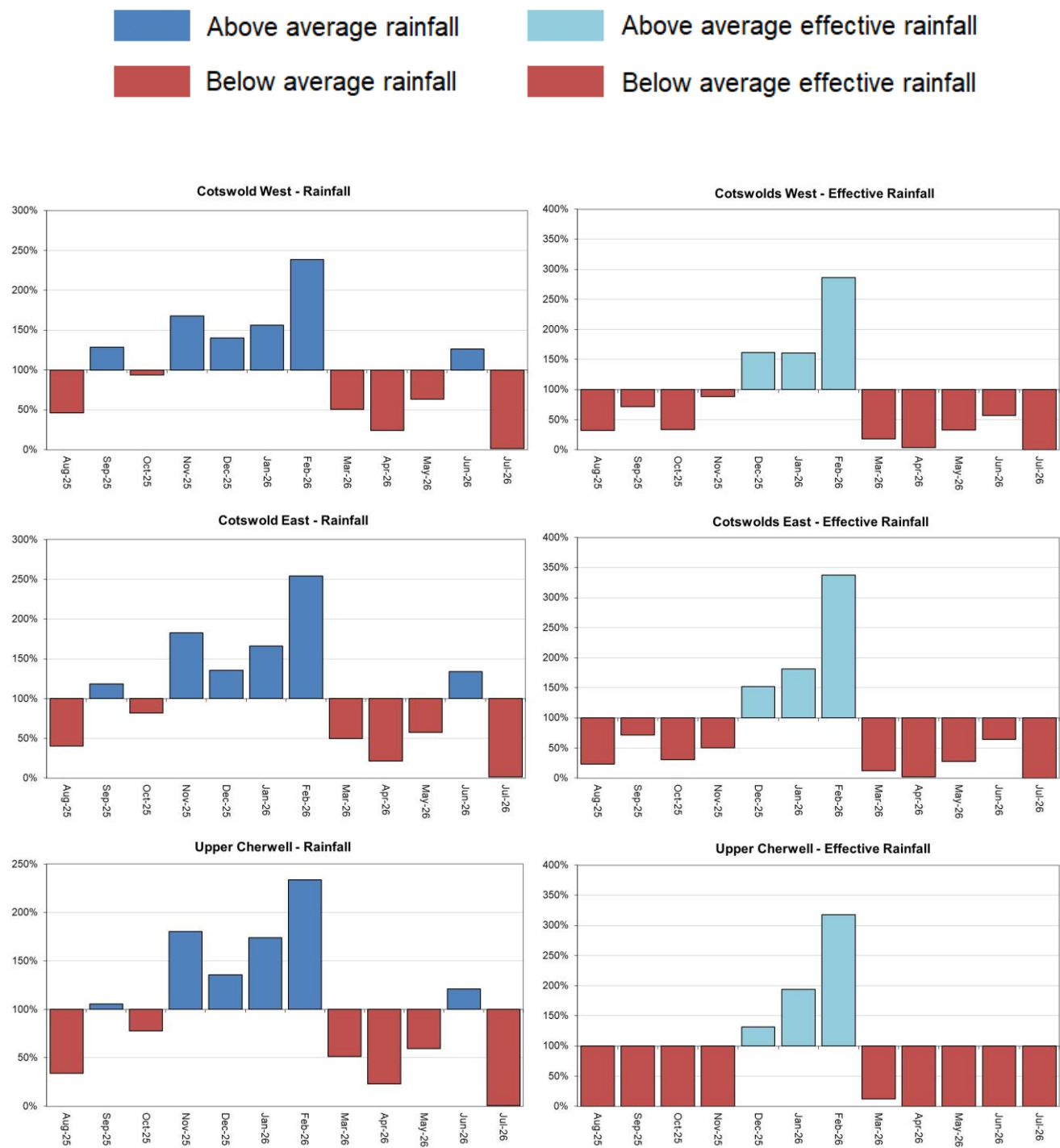
Figure 2.2: Total rainfall for hydrological areas for July 2026, the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.

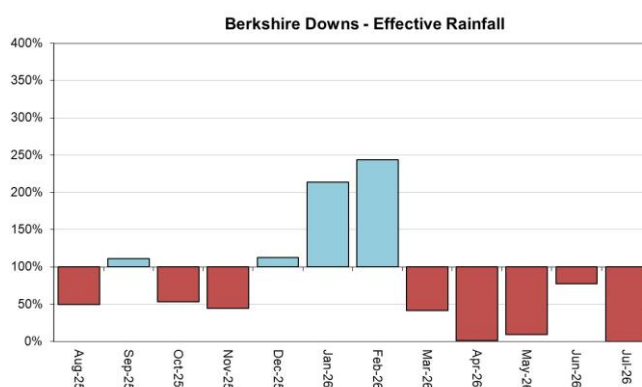
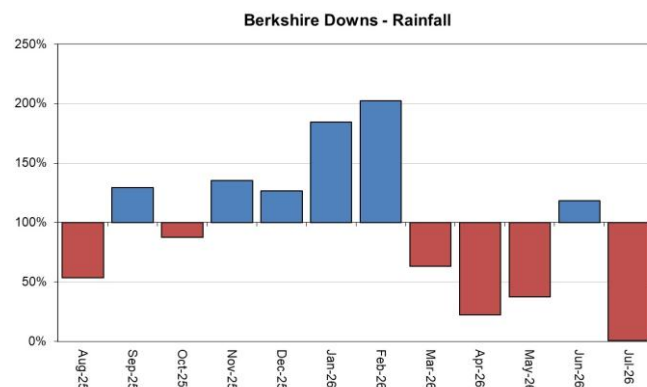
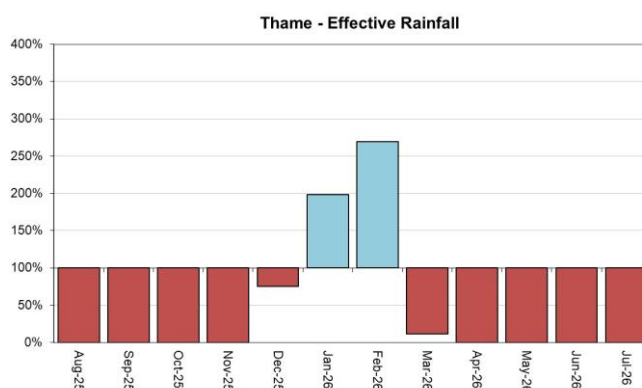
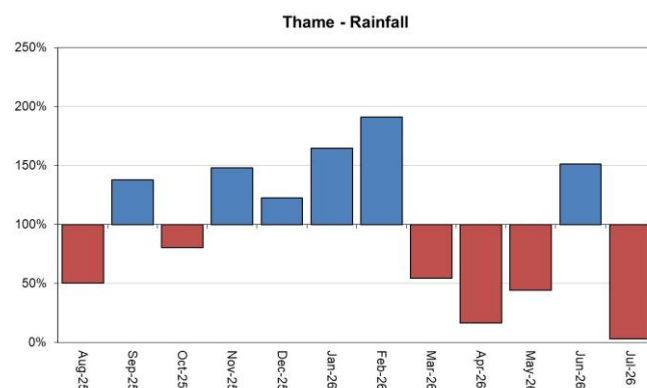
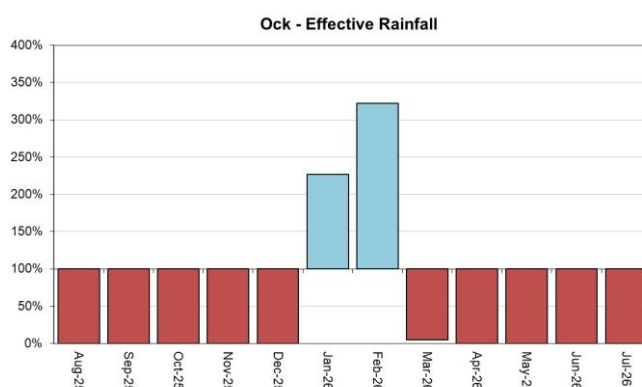
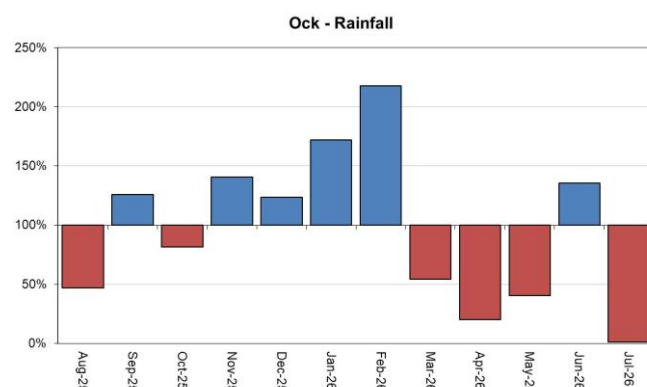
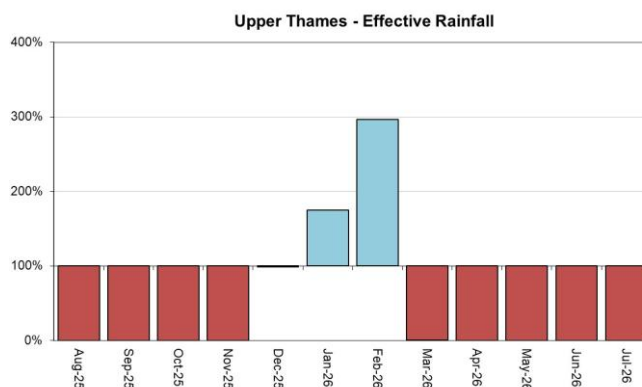
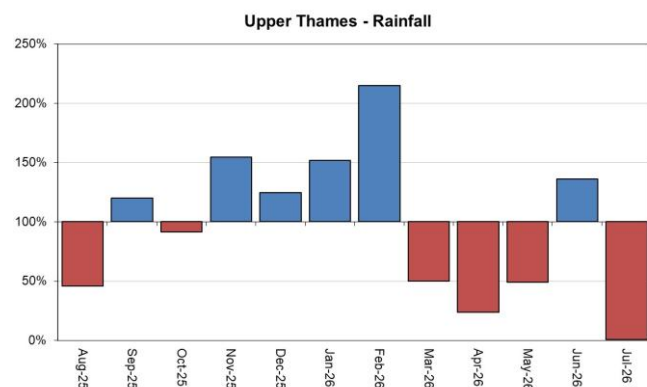


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency). © Ordnance Survey Crown Copyright and Database Rights 2026 – AC0000807064.

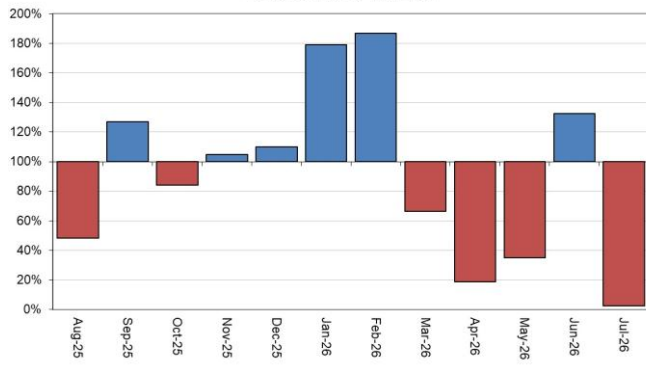
2.3 Rainfall charts

Figure 2.3: Monthly rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average for each hydrological area.

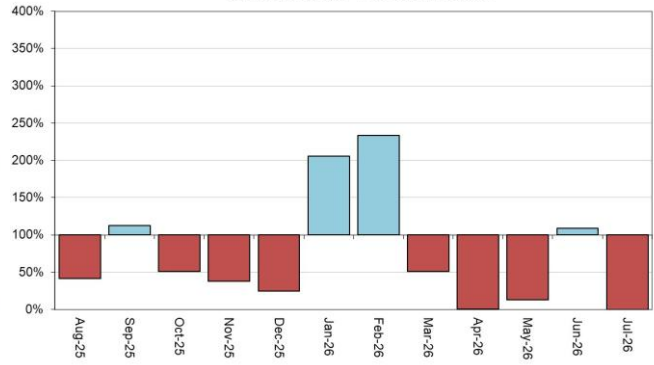




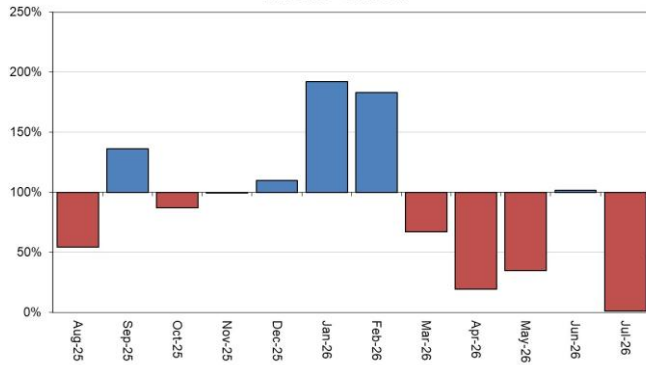
Chilterns West - Rainfall



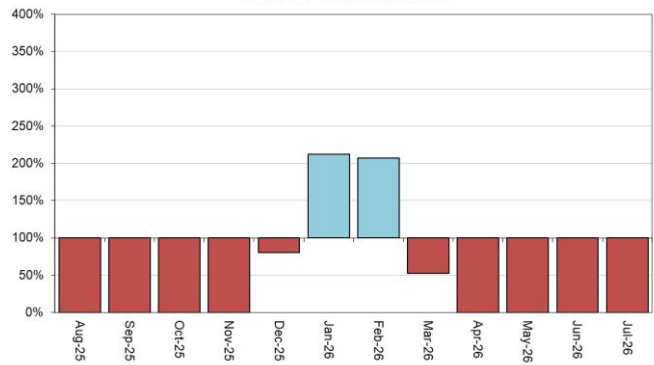
Chilterns West - Effective Rainfall



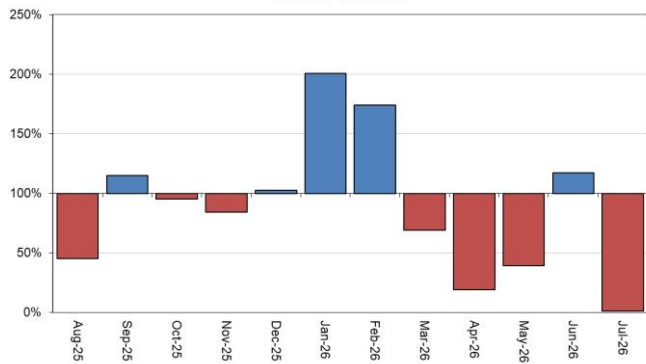
Enborne - Rainfall



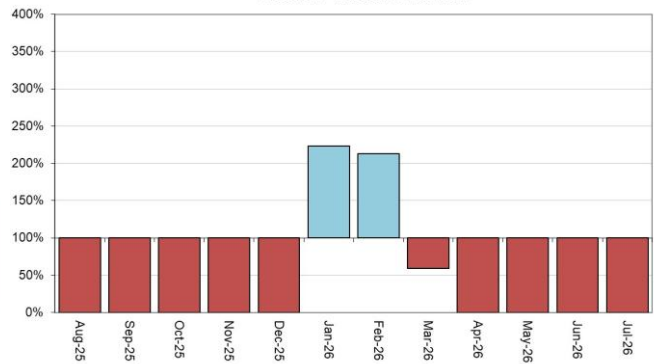
Enborne - Effective Rainfall



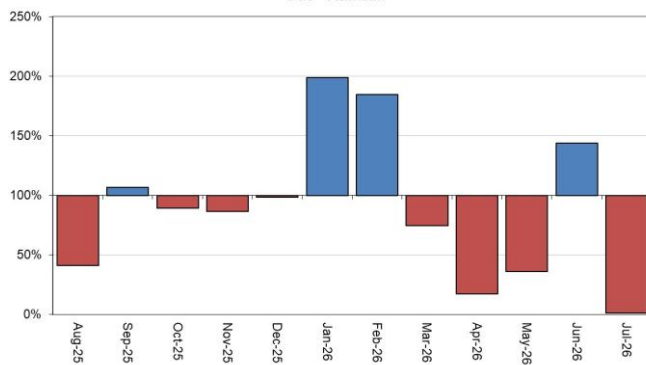
Loddon - Rainfall



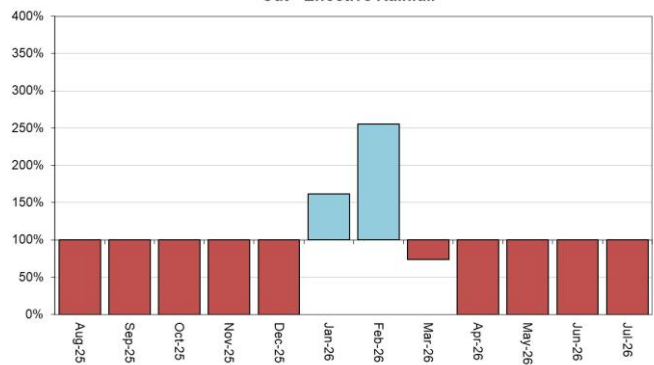
Loddon - Effective Rainfall

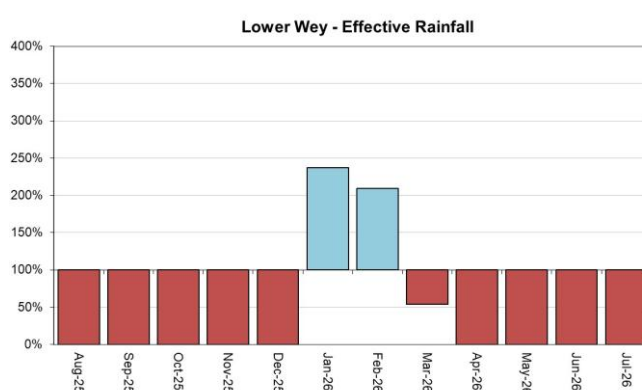
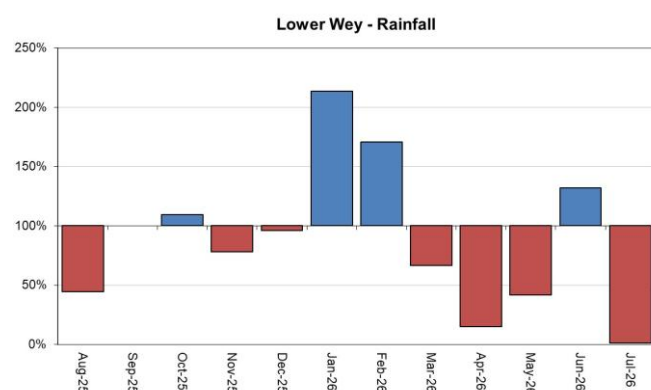
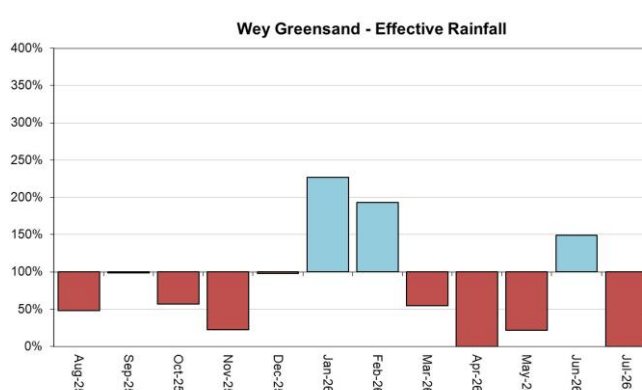
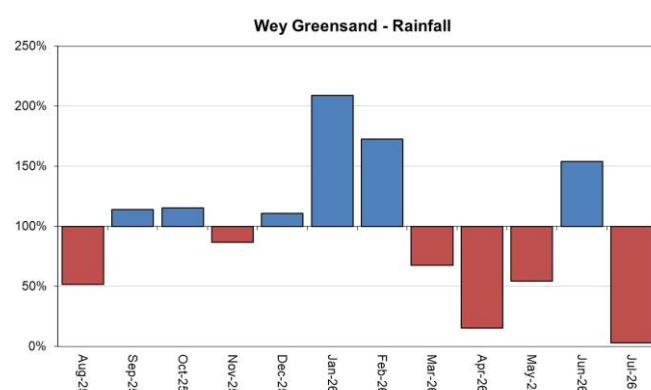
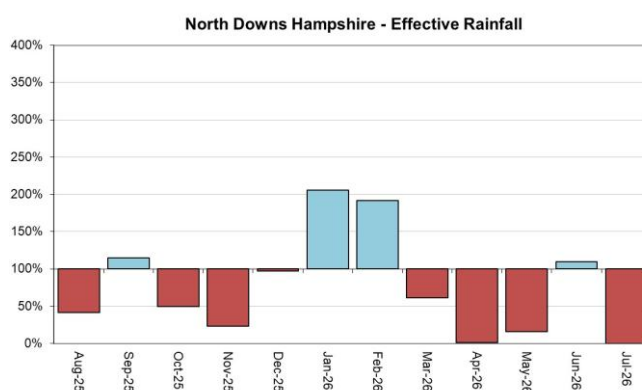
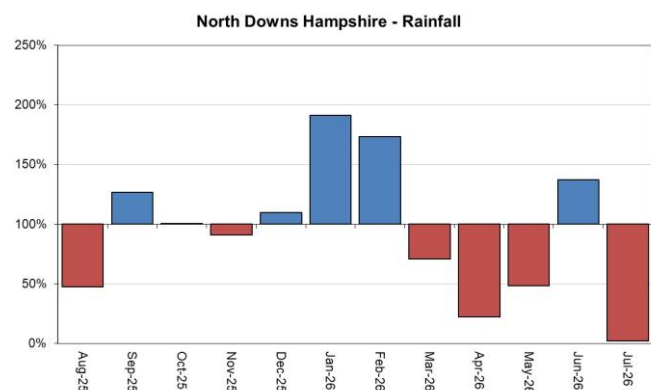


Cut - Rainfall



Cut - Effective Rainfall





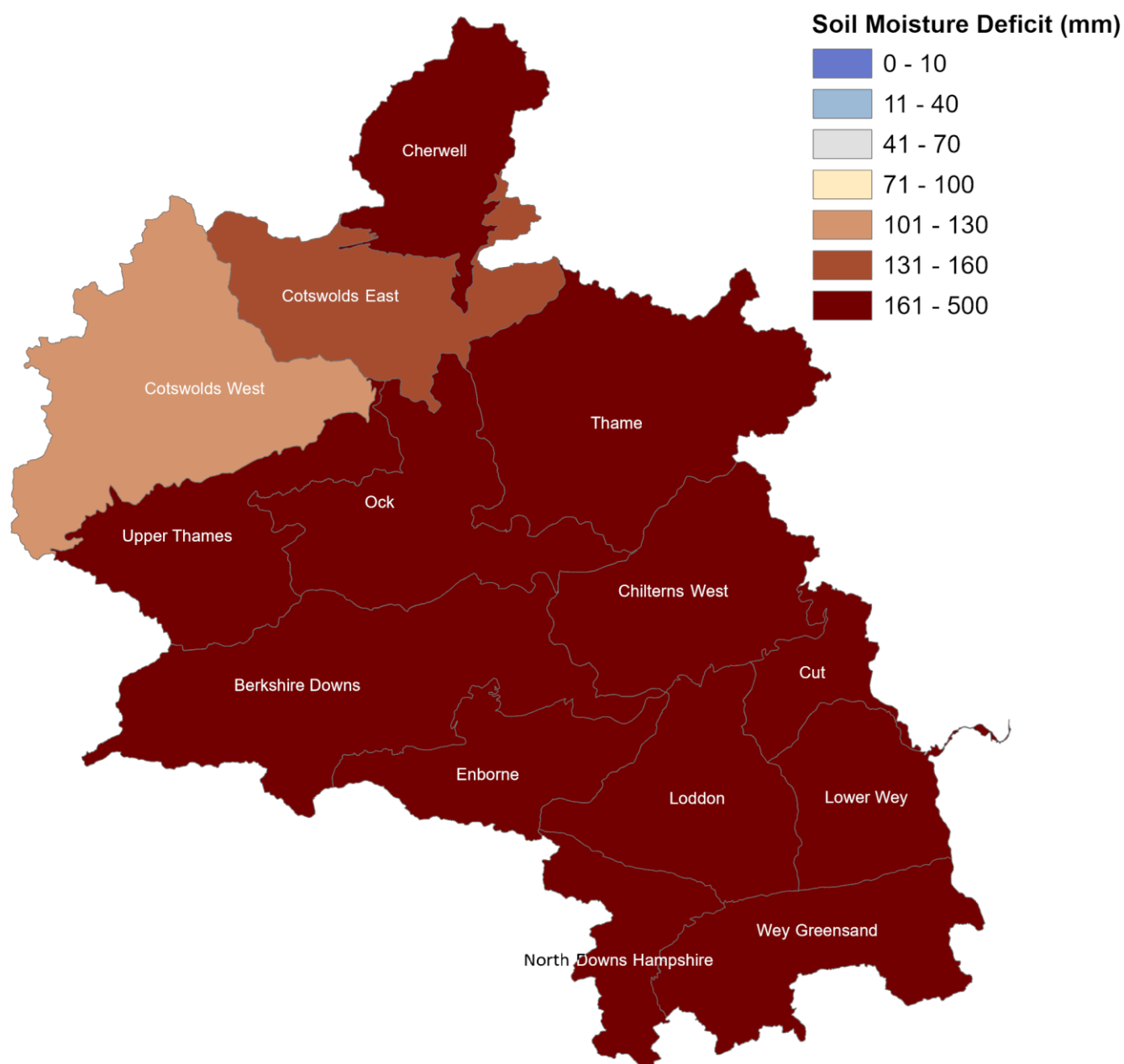
HadUK rainfall data. (Source: Met Office. Crown copyright, 2026)

EA effective rainfall data (Source: EA Soil Moisture Model, 2026)

3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Estimated areal soil moisture deficits for hydrological areas on 31 July 2026, expressed in millimetres (mm).



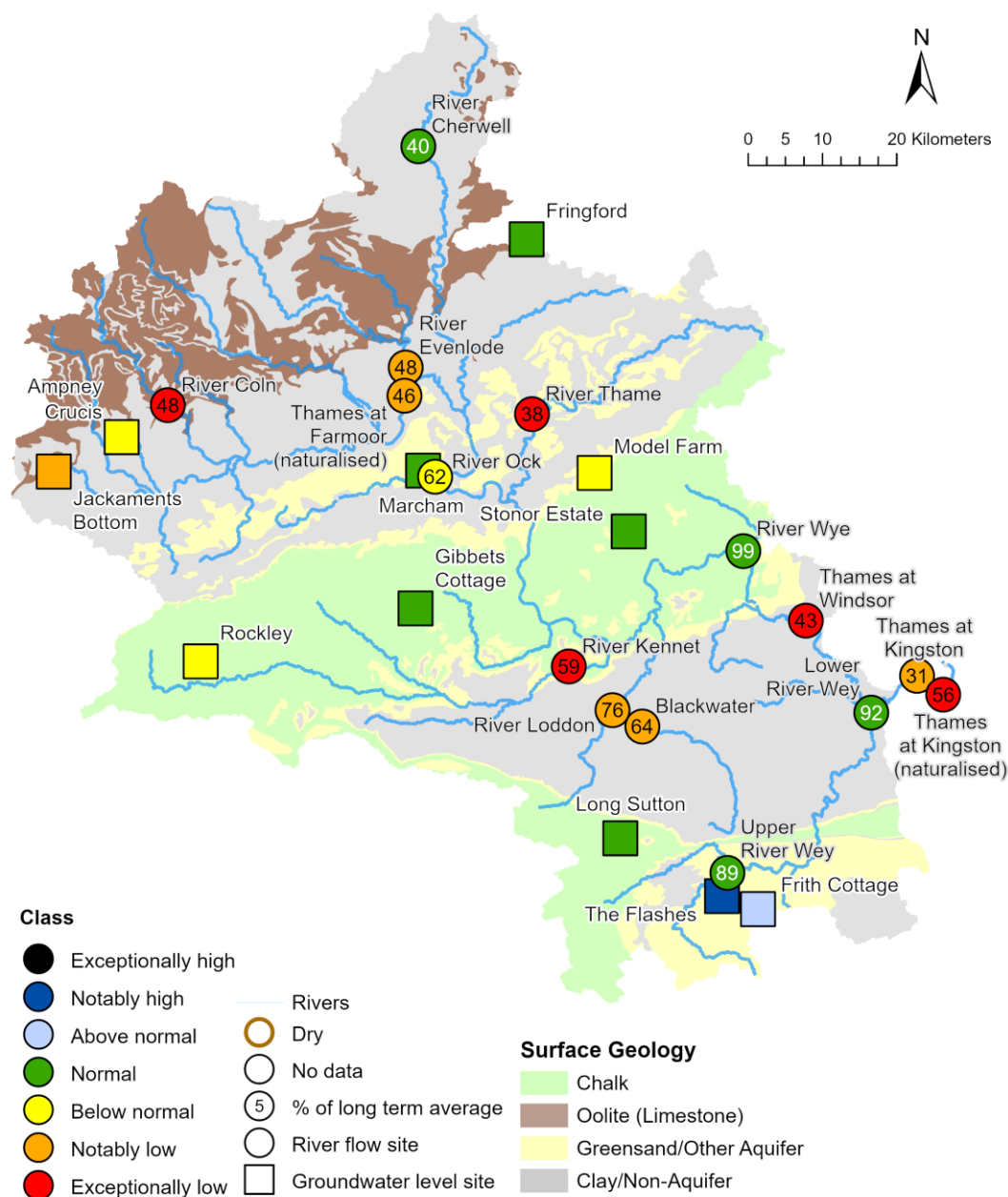
(Source: Environment Agency)

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4 River Flow and Groundwater Status

4.1 River flow and groundwater level map

Figure 4.1: Monthly mean river flows and end of month groundwater levels at indicator sites for July 2026. Monthly mean river flows are expressed as a percentage of their respective long term averages and classified relative to historic July flows. Groundwater levels are classified relative to historic end of July groundwater levels.

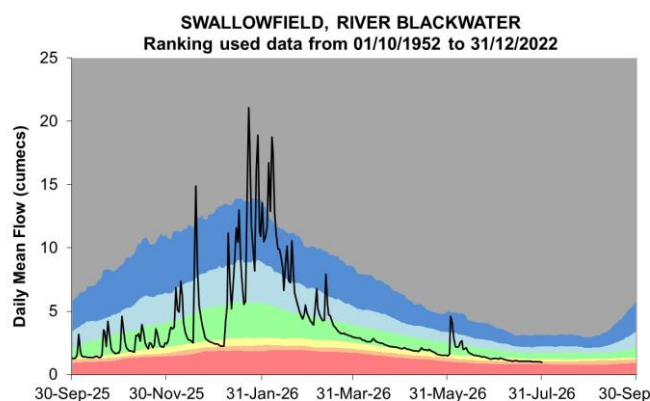
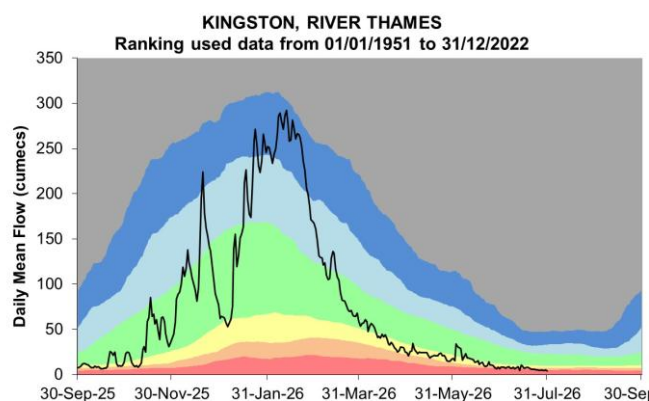
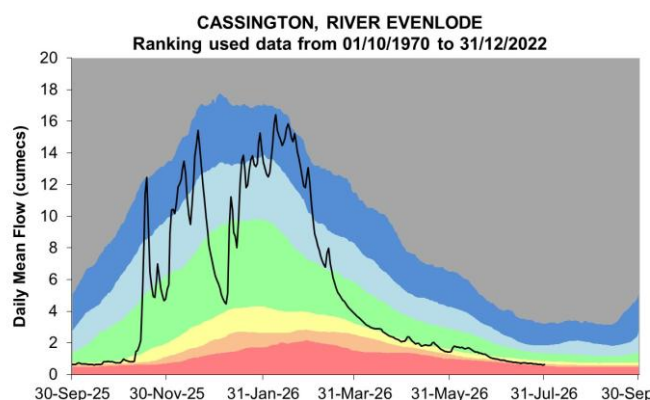
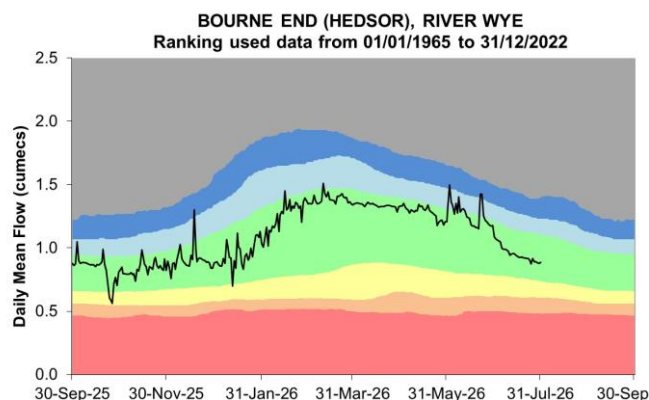
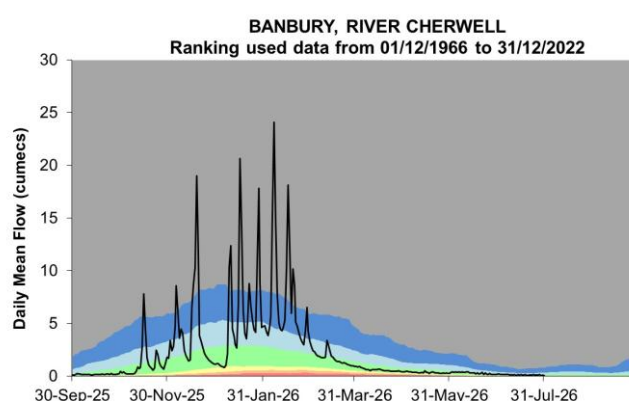
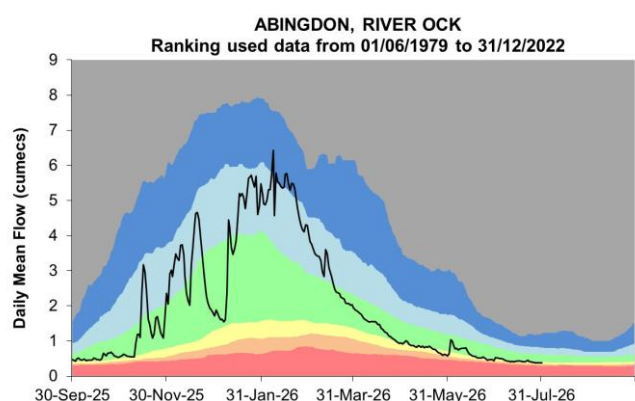
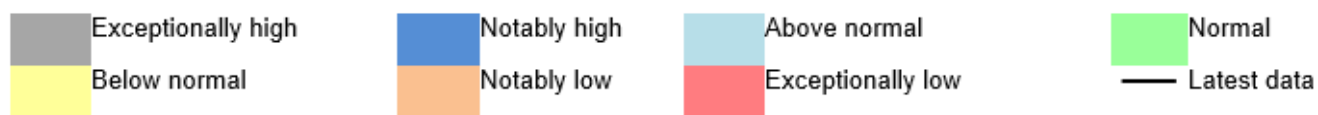


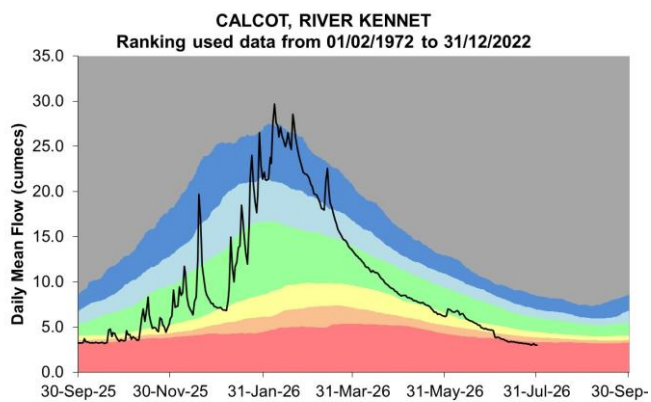
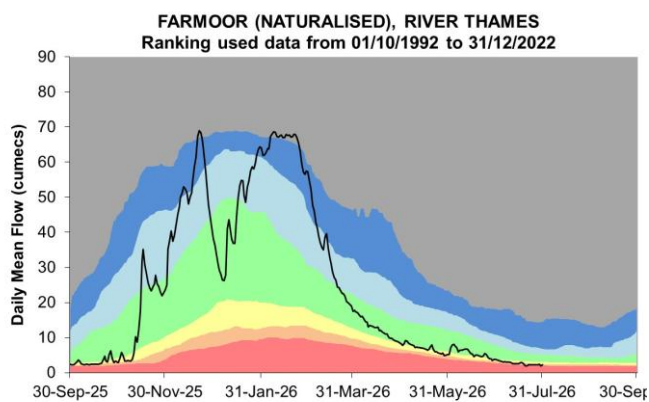
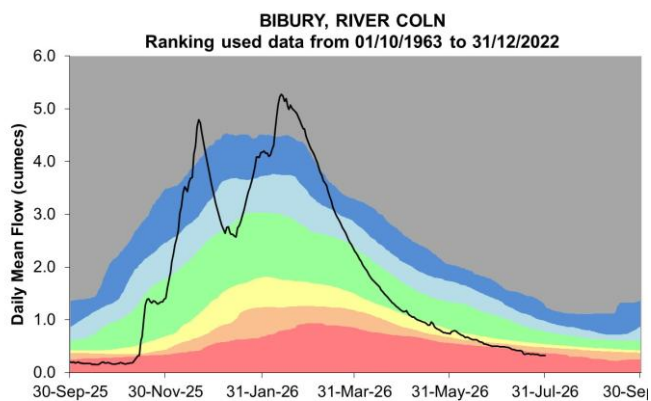
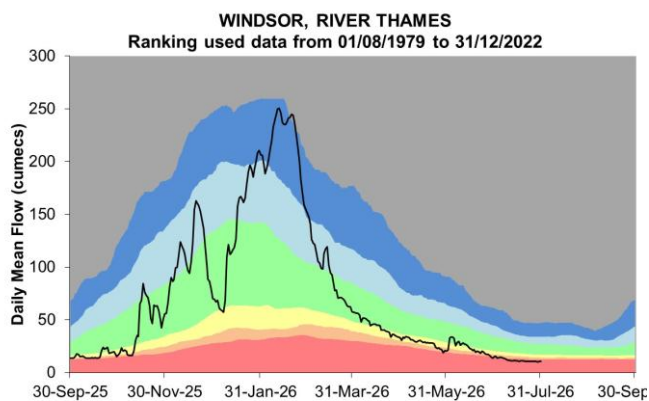
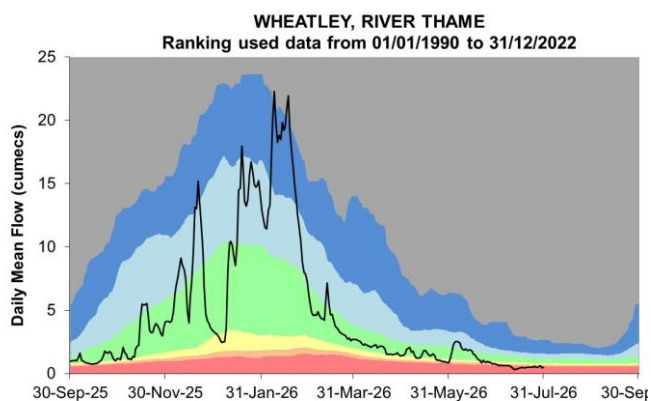
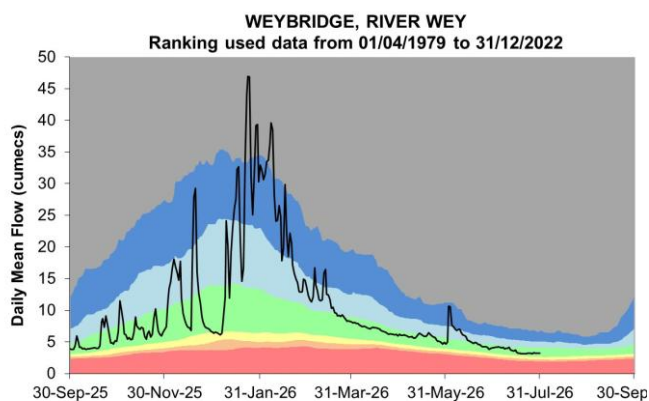
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. © Ordnance Survey Crown Copyright and Database Rights 2026 – AC0000807064.

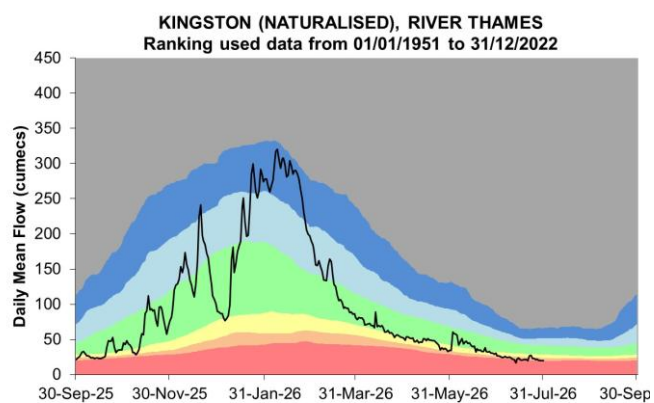
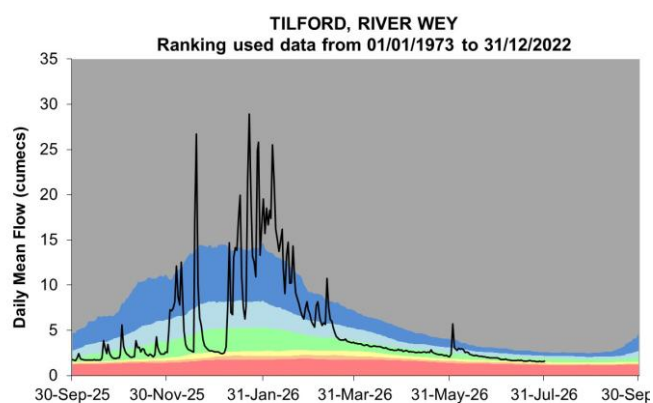
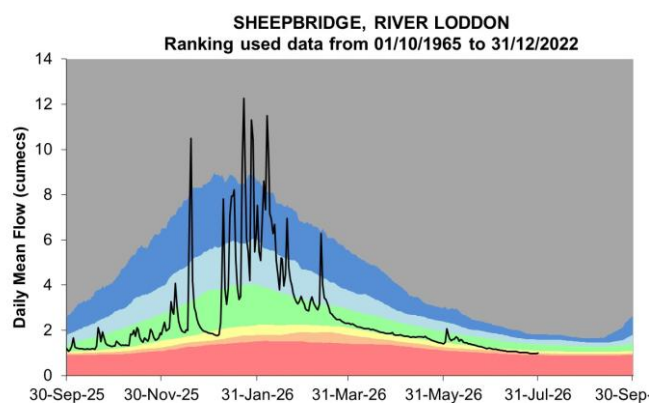
5 River flows

5.1 River flow charts

Figure 5.1: Daily mean river flows for indicator sites compared to an analysis of historic daily mean flows.





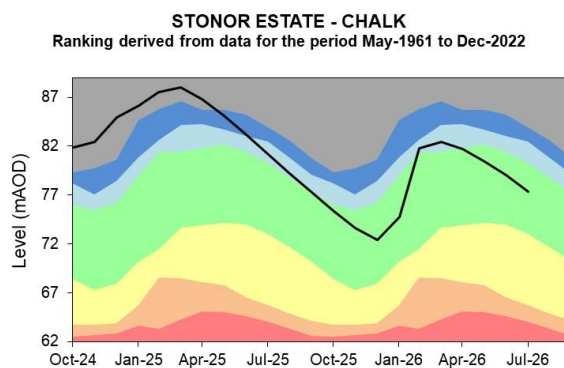
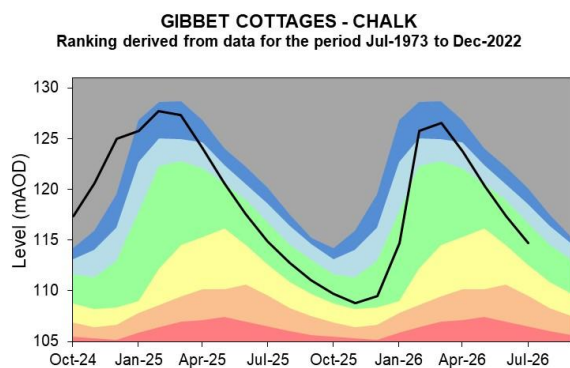
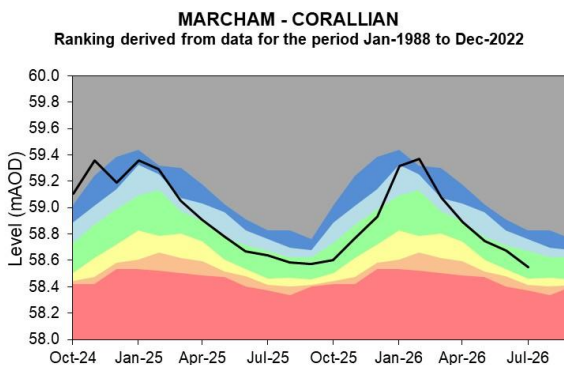
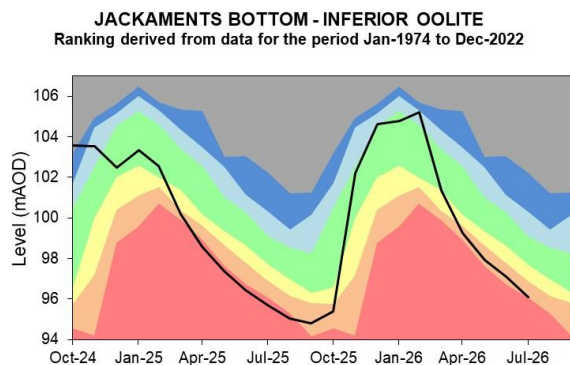
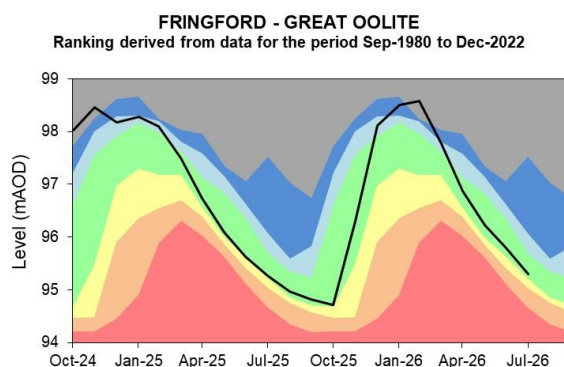
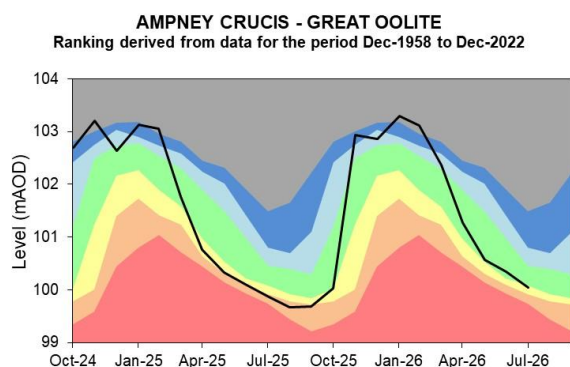
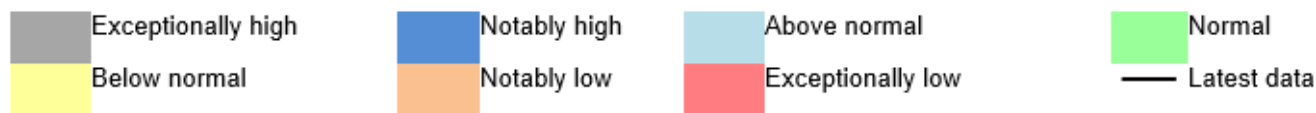


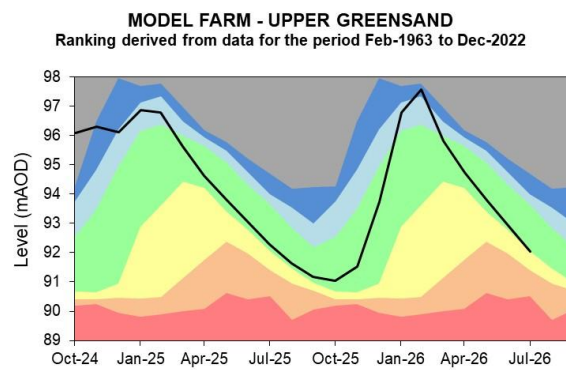
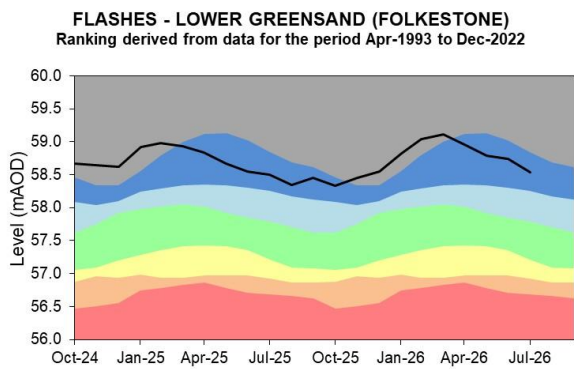
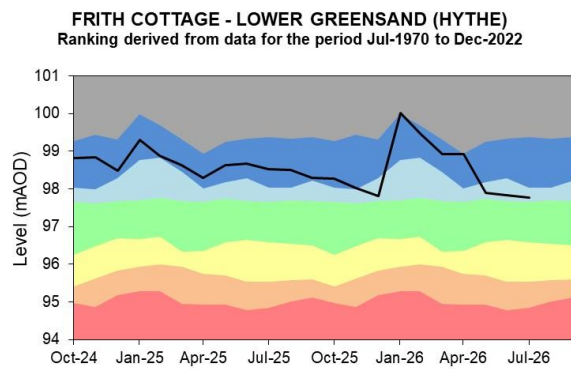
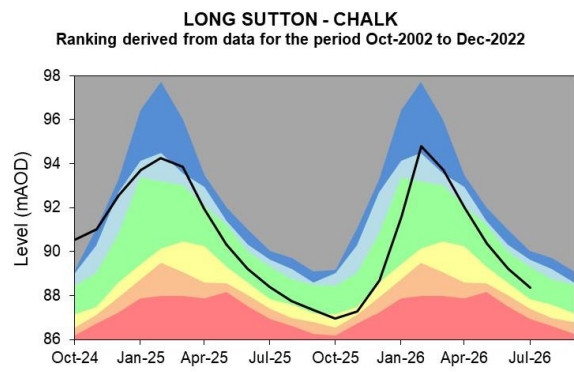
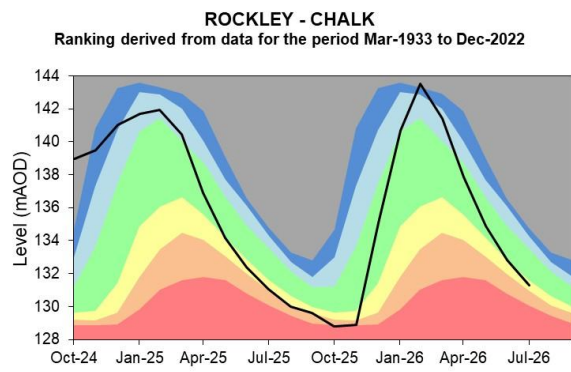
(Source: Environment Agency, 2026)

6 Groundwater levels

6.1 Groundwater level charts

Figure 6.1: End of month groundwater levels for indicator sites, compared to an analysis of historic end of month levels.

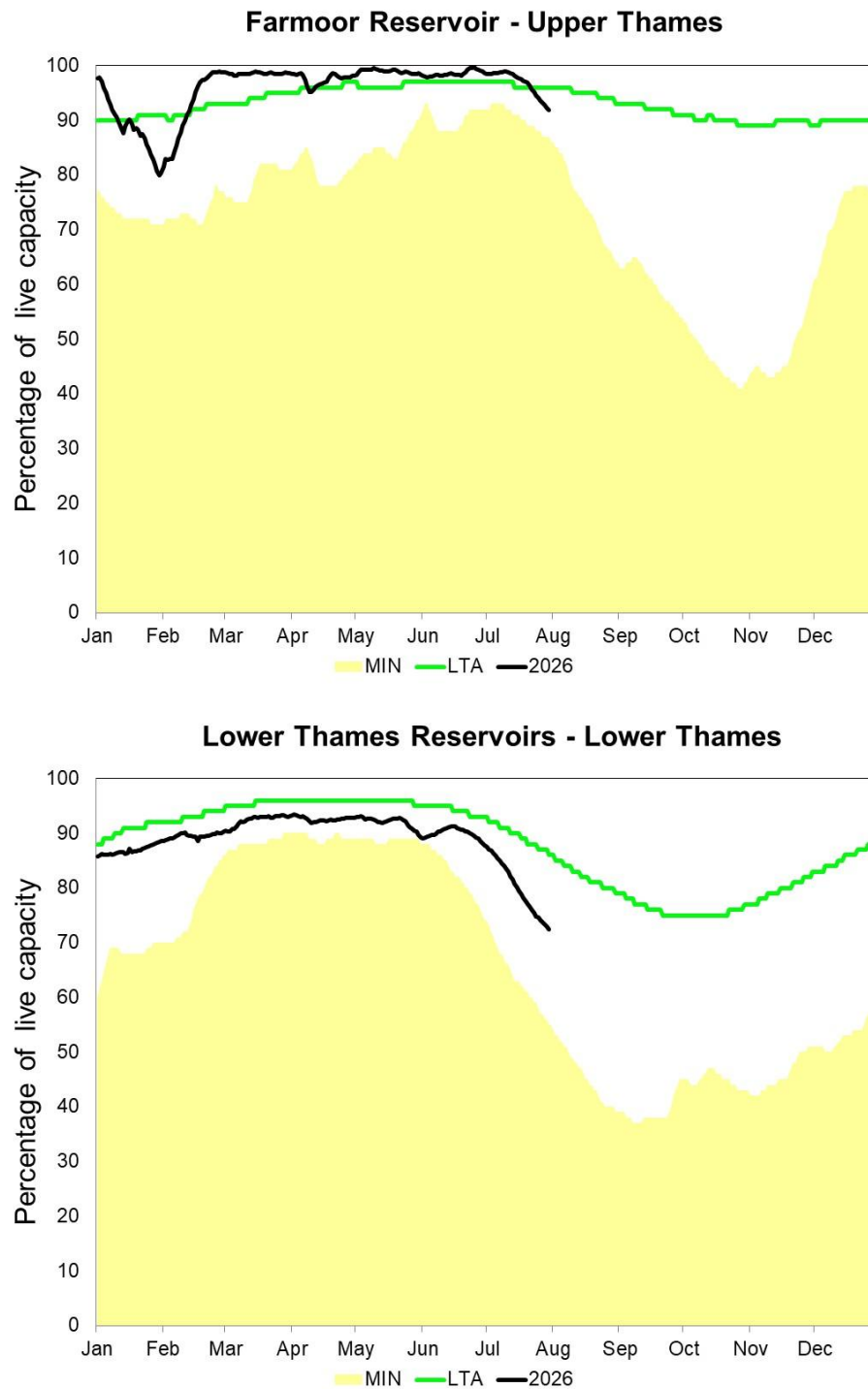




(Source: Environment Agency, 2026)

7 Reservoir stocks

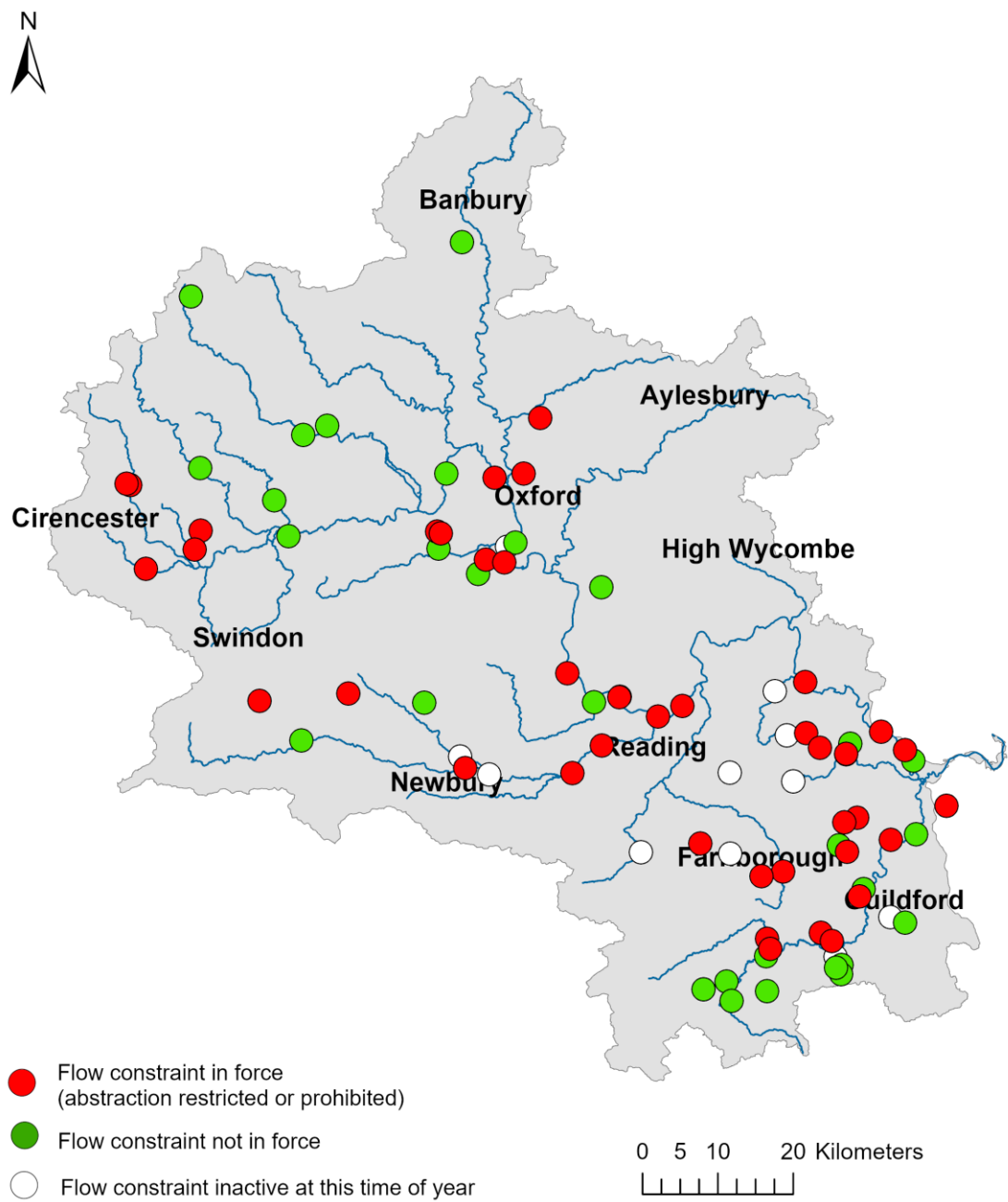
Figure 7.1: Daily regional reservoir stocks from 1 January to 31 July 2026 compared with average and minimum stock levels.



(Source: Thames Water)

8 Flow Constraints

8.1 Figure 8.1: End of month flow constraints in Thames area.



8.2 Summary of flow constraints

Week ending	05/07/26	12/07/26	19/07/26	26/07/26
Number of constraints active	39	43	49	48

9 Summary of rainfall, effective rainfall and soil moisture deficit

9.1 Rainfall and effective rainfall

Hydrological Area	Rainfall (mm) July Total	Rainfall (mm) July LTA	Rainfall (mm) % LTA	Effective rainfall (mm) July total	Effective rainfall (mm) July LTA	Effective rainfall (mm) % LTA
Cotswolds - West	1	64	2	0	11	0
Cotswolds - East	1	58	1	0	8	0
Berkshire Downs	1	58	1	0	8	0
Chilterns - West	1	52	2	0	5	0
North Downs - Hampshire	1	58	2	0	7	0
Wey - Greensand	2	55	3	0	5	0
Upper Thames	<1	56	<1	0	3	0
Cherwell	1	57	1	0	3	0
Thame	2	51	3	0	1	0
Loddon	1	51	1	0	1	0
Lower Wey	<1	49	<1	0	0	0
Ock	1	50	2	0	2	0
Enborne	1	52	1	0	3	0
Cut	1	47	1	0	0	-
Thames Area	1	54	1	0	4	0

HadUK rainfall data (Source: Met Office Crown copyright, 2026)

EA effective rainfall and soil moisture deficit data (Source: EA Soil Moisture Model, 2026)

9.2 Soil moisture deficit

Hydrological Area	SMD (mm) End July	SMD (mm) End July LTA
Cotswolds - West	129	55
Cotswolds - East	133	57
Berkshire Downs	171	88
Chilterns - West	170	93
North Downs - Hampshire	167	87
Wey - Greensand	165	90
Upper Thames	168	90
Cherwell	161	84
Thame	168	90
Loddon	177	95
Lower Wey	170	93
Ock	174	97
Enborne	177	89
Cut	174	102
Thames Area	165	86

HadUK rainfall data (Source: Met Office Crown copyright, 2026)

EA effective rainfall and soil moisture deficit data (Source: EA Soil Moisture Model, 2026)

9.3 Summer rainfall and effective rainfall

Summer period: 01/04/2026 to 31/07/2026						
Hydrological Area	Rainfall (mm) Total	Rainfall (mm) LTA	Rainfall (mm) % LTA	Effective rainfall (mm) Total	Effective rainfall (mm) LTA	Effective rainfall (mm) % LTA
Cotswolds - West	131	248	53	9	47	19
Cotswolds - East	119	227	53	7	39	19
Berkshire Downs	99	229	43	5	36	15
Chilterns - West	100	213	47	6	28	21
North Downs - Hampshire	123	234	52	9	42	21
Wey - Greensand	124	223	56	9	37	25
Upper Thames	112	216	52	0	14	0
Cherwell	110	220	50	0	19	0
Thame	107	203	53	0	11	0
Loddon	88	199	44	0	11	0
Lower Wey	94	195	48	0	10	0
Ock	98	201	49	0	10	0
Enborne	84	214	39	0	19	0
Cut	95	188	50	0	7	0
Thames Area	106	215	49	3	24	14

HadUK rainfall data (Source: Met Office Crown copyright, 2026)

EA effective rainfall and soil moisture deficit data (Source: EA Soil Moisture Model, 2026)

10 Glossary

10.1 Terminology

Aquifer

A geological formation able to store and transmit water.

Areal average rainfall

The estimated average depth of rainfall over a defined area. Expressed in depth of water (mm).

Artesian

The condition where the groundwater level is above ground surface but is prevented from rising to this level by an overlying continuous low permeability layer, such as clay.

Artesian borehole

Borehole where the level of groundwater is above the top of the borehole and groundwater flows out of the borehole when unsealed.

Cumecs

Cubic metres per second (m^3s^{-1}).

Effective rainfall

The rainfall available to percolate into the soil or produce river flow. Expressed in depth of water (mm).

Flood alert and flood warning

Three levels of warnings may be issued by the Environment Agency. Flood alerts indicate flooding is possible. Flood warnings indicate flooding is expected. Severe flood warnings indicate severe flooding.

Groundwater

The water found in an aquifer.

Long term average (LTA)

The arithmetic mean calculated from the historic record, usually based on the period 1991 to 2020. However, the period used may vary by parameter being reported on (see figure captions for details).

mAOD

Metres above ordnance datum (mean sea level at Newlyn Cornwall).

MORECS

Met Office Rainfall and Evaporation Calculation System. Met Office service providing real time calculation of evapotranspiration, soil moisture deficit and effective rainfall on a 40 by 40 km grid.

Naturalised flow

River flow with the impacts of artificial influences removed. Artificial influences may include abstractions, discharges, transfers, augmentation and impoundments.

NCIC

National Climate Information Centre. NCIC area monthly rainfall totals are derived using the Met Office 1 km gridded dataset, which uses rain gauge observations.

Recharge

The process of increasing the water stored in the saturated zone of an aquifer. Expressed in depth of water (mm).

Reservoir gross capacity

The total capacity of a reservoir.

Reservoir live capacity

The capacity of the reservoir that is normally usable for storage to meet established reservoir operating requirements. This excludes any capacity not available for use (for example, storage held back for emergency services, operating agreements or physical restrictions). May also be referred to as 'net' or 'deployable' capacity.

Soil moisture deficit (SMD)

The difference between the amount of water actually in the soil and the amount of water the soil can hold. Expressed in depth of water (mm).

10.2 Categories

Exceptionally high

Value likely to fall within this band 5% of the time.

Notably high

Value likely to fall within this band 8% of the time.

Above normal

Value likely to fall within this band 15% of the time.

Normal

Value likely to fall within this band 44% of the time.

Below normal

Value likely to fall within this band 15% of the time.

Notably low

Value likely to fall within this band 8% of the time.

Exceptionally low

Value likely to fall within this band 5% of the time.

11 Appendices

11.1 Rainfall table

Hydrological area	July 2026 rainfall % of long term average 1991 to 2020	July 2026 band	May 2026 to July cumulative band	February 2026 to July cumulative band	August 2025 to July cumulative band
Cotswold West	2	Exceptionally Low	Notably low	Below normal	Above normal
Cotswold East	1	Exceptionally Low	Below normal	Below normal	Above normal
Berkshire Downs	1	Exceptionally Low	Exceptionally low	Below normal	Normal
Chilterns West	2	Exceptionally Low	Notably low	Below normal	Normal
North Downs Hampshire	2	Exceptionally Low	Notably low	Below normal	Normal
Wey Greensand	3	Exceptionally Low	Below normal	Below normal	Normal
Upper Thames	<1	Exceptionally Low	Notably low	Below normal	Normal
Cherwell	1	Exceptionally Low	Notably low	Below normal	Normal
Thame	3	Exceptionally Low	Notably low	Below normal	Normal
Loddon	1	Exceptionally Low	Exceptionally low	Notably low	Normal
Lower Wey	<1	Exceptionally Low	Notably low	Notably low	Normal
Ock	1	Exceptionally Low	Notably low	Below normal	Normal
Enborne	1	Exceptionally Low	Exceptionally low	Notably low	Normal
Cut	1	Exceptionally Low	Notably low	Below normal	Normal

11.2 River flows table

Site name	River	Catchment	July 2026 band	June 2026 band
Abingdon	River Ock	Ock	Below normal	Normal
Banbury	River Cherwell	Cherwell Upper	Normal	Normal
Bibury	River Coln	Coln	Exceptionally low	Notably low
Bourne End (Hedsor)	River Wye	Wye Bucks	Normal	Normal
Calcot	River Kennet	Kennet	Exceptionally low	Normal
Cassington	River Evenlode	Evenlode	Notably low	Normal
Farmoor (Naturalised)	River Thames	Thames	Notably low	Normal
Kingston	River Thames	Thames	Notably low	Below normal
Sheepbridge	River Loddon	Loddon	Notably low	Normal
Swallowfield	River Blackwater	Loddon	Notably low	Normal
Tilford	River Wey	Wey Addlestone Bourne	Normal	Above normal
Weybridge	River Wey	Wey Addlestone Bourne	Normal	Above normal
Wheatley	River Thame	Thame	Exceptionally low	Normal
Windsor	River Thames	Thames	Exceptionally low	Below normal
Kingston (Naturalised)	River Thames	Thames North Bank	Exceptionally low	Normal

11.3 Groundwater table

Site name	Aquifer	End of July 2026 band	End of June 2026 band
Ampney Crucis OBH	Burford Oolitic Limestone (Great)	Below normal	Normal
Frith Cottage	Godalming Lower Greensand	Above normal	Above normal
Gibbet Cottages OBH	Berkshire Downs Chalk	Normal	Normal
Jackaments Bottom OBH	Burford Oolitic Limestone (Inferior)	Notably low	Notably low
Long Sutton	North Downs Chalk	Normal	Normal
Marcham OBH	Shrivenham Corallian	Normal	Normal
Model Farm	Chiltern Upper Greensand	Below normal	Normal
Rockley OBH	Berkshire Downs Chalk	Below normal	Below normal
Stonor Estate	South-west Chilterns Chalk	Normal	Normal
The Flashes OBH	Godalming Lower Greensand	Notably high	Notably high
Fringford P.S.	Upper Bedford Ouse Oolitic Limestone (Great)	Normal	Normal