

Monthly water situation report: Thames Area

1 Summary - September 2026

September was another drier than average month. Thames area received just half of the long term average (LTA) rainfall for September. It was the driest three-month period (July to September) and the driest summer (April to September) since records began. Soil moisture deficits (SMDs) were the highest ever recorded in this area for September. Monthly mean river flows remained similar to August, 4 indicator sites were recorded as normal for the time of year, while 8 sites recorded notably or exceptionally low flows. Groundwater levels continued their seasonal decline and ranged from notably low to notably high across Thames area at the end of September. Thames area remained in drought status, having entered drought in July.

1.1 Rainfall

Thames area received a total of 31mm of rainfall in September, 53% of the LTA for the month. Most of the rain fell on 5 separate days, 4 of which were in the first 2 weeks of the month. Rain on the 7 and 8 September accounted for 39% of the month's rainfall, 13mm in total. Rainfall recorded was below normal for September in almost every hydrological area. Only the North Downs Hampshire hydrological area received normal rainfall compared to its LTA.

It has been the driest 6-month summer period (April to September) and the driest July to September in Thames area since records began. The area remained in drought status, having entered drought in July.

1.2 Soil moisture deficit and recharge

SMDs continued to increase throughout September, reaching levels considerably higher than would typically be expected for the time of year, with deficits roughly double their respective September LTAs across all hydrological areas. Effective rainfall was negligible during the month, with only 1mm recorded, equivalent to 27% of the September LTA. As we enter the winter period, soils will need to return to zero SMD before significant groundwater recharge can occur. The timing of this will depend on the rainfall received over the coming months.

1.3 River flows

Despite recent rainfall, monthly mean river flows for most of our reporting sites remained in the same banding categories as in August. Flows at 4 of our indicator sites were recorded as normal for the time of year, while two-thirds (8 sites) recorded notably or exceptionally low flows. There were improvements at the River Thame at Wheatley and the River Loddon at Sheepbridge compared to August, each moving up one banding category to notably low and normal, respectively. Notably low flows were recorded on the River Thames at Farmoor (naturalised), the River Thames at Kingston (naturalised), the River Thame at Wheatley and

the River Blackwater at Swallowfield. Exceptionally low flows were recorded at the River Thames at Kingston, the River Thames at Windsor, River Kennet at Calcot and River Coln at Bibury. The River Thames's monthly mean flow at Kingston was the fourth lowest September monthly mean flow on record, after 1976, 1934 and 1990.

The West Berkshire Groundwater Scheme continued to operate throughout September, having been switched on at the end of August in order to supplement the flows in the River Thames and to bolster the water available for abstraction in the Lower Thames during the drought.

1.4 Groundwater levels

Groundwater levels continued their seasonal decline at all indicator sites in September. At the end of the month, 6 of our 11 indicator sites remained normal or above for the time of year. Groundwater levels in the Lower Greensand aquifers continued to be relatively resilient, with The Flashes maintaining notably high levels for the time of year. The chalk and oolite aquifers are showing less resilience. In the chalk, levels at Long Sutton declined from normal in August to below normal in September, whilst Rockley dropped from below normal in August to notably low in September. However, Gibbets Cottage and Stonor Estate in the chalk remain at normal levels for the time of year. In the oolite aquifers in the west of the area, Jackaments Bottom and Ampney Crucis are both notably low for the time of year.

1.5 Reservoir stocks

In September, reservoir storage declined less rapidly than previous months. Farmoor Reservoir's storage decreased to 69.0% at the end of the month, below the LTA for the time of year, down from 75.6% at the end of August. Storage in the Lower Thames Reservoirs also decreased, ending the month at 53.1%, also below the LTA, down from 59.4% at the end of August.

1.6 Environmental impact

At the end of September, 51 abstraction licences were having their flows constrained to protect the environment, an increase from 41 licences at the end of August.

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

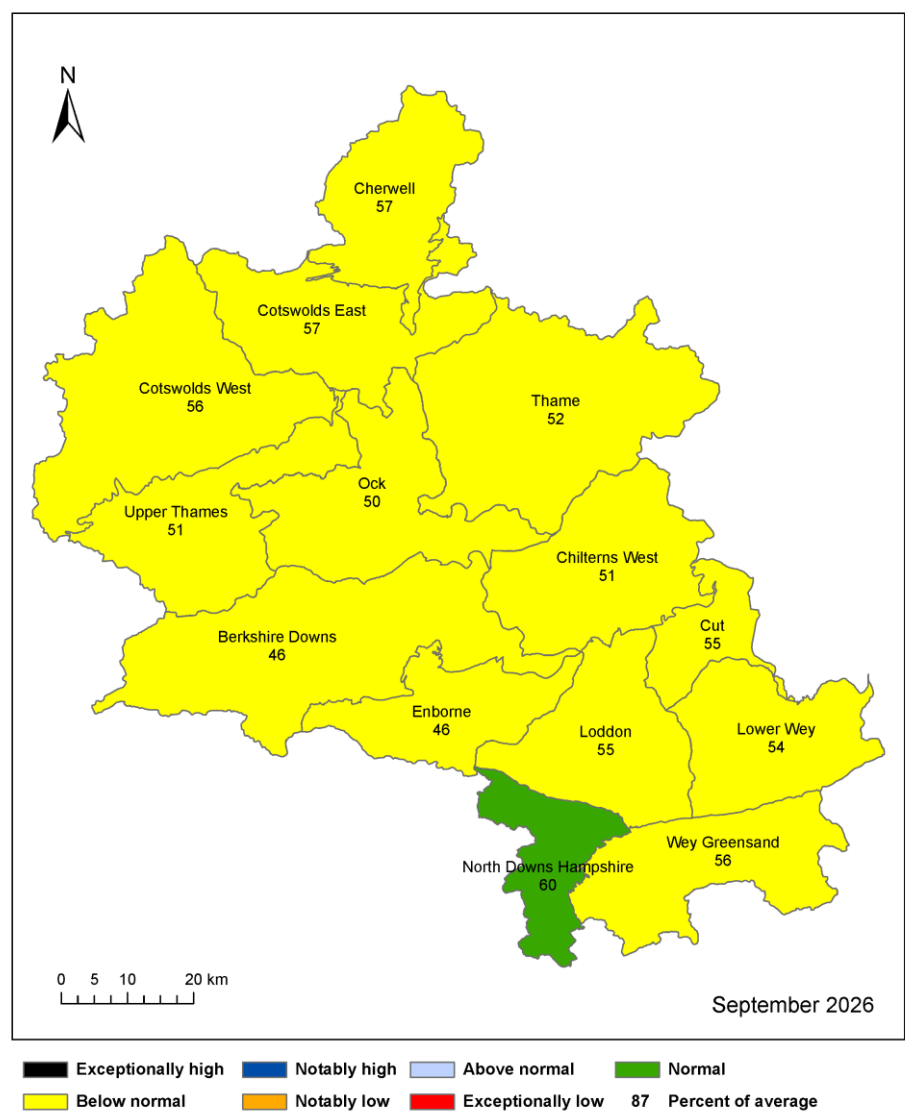
Contact Details: 030708 506 506

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2 Rainfall

2.1 Rainfall map

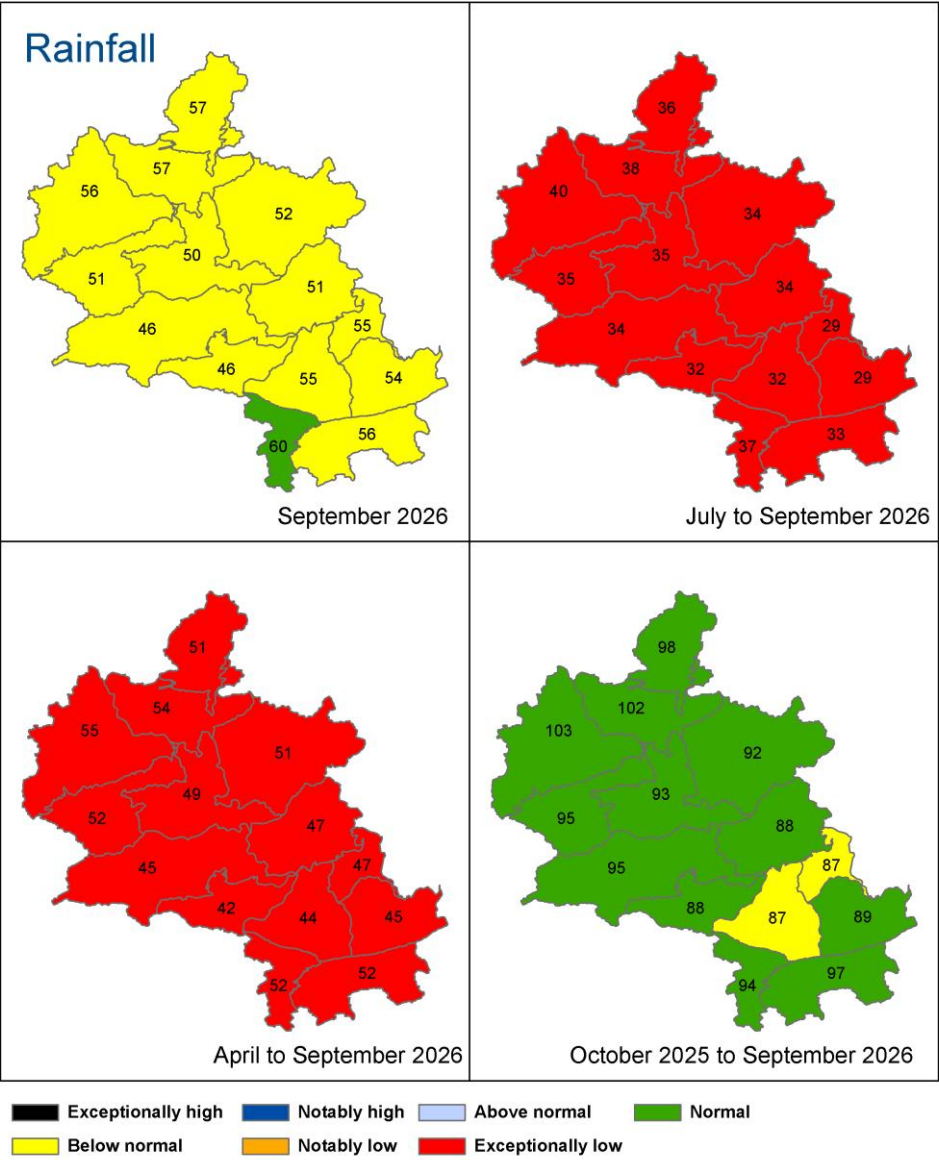
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 30 September 2026), classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



Rainfall data for 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2026). Rainfall data prior to 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 (2)

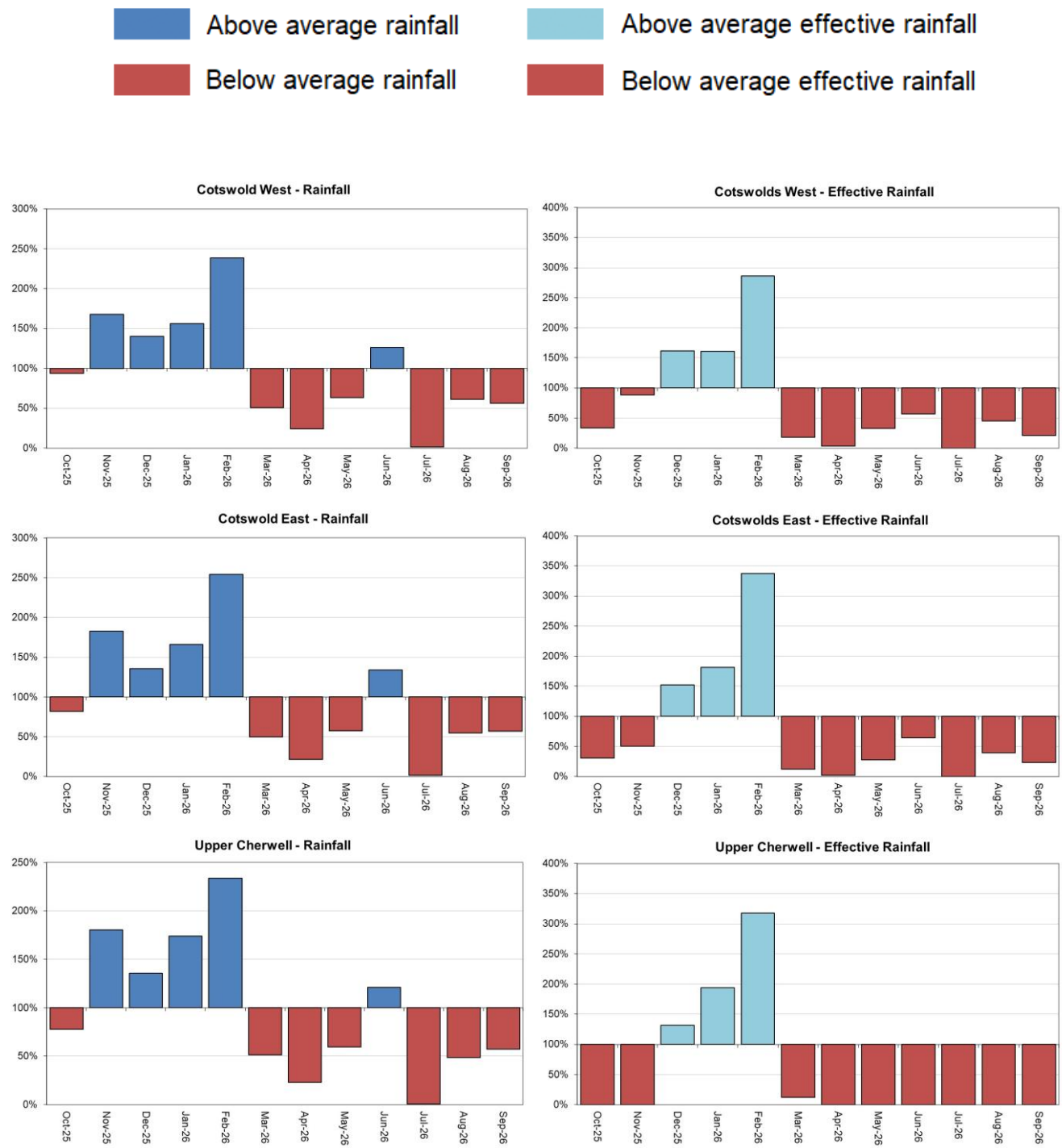
Figure 2.2: Total rainfall for hydrological areas for the current month (up to 30 September 2026), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.

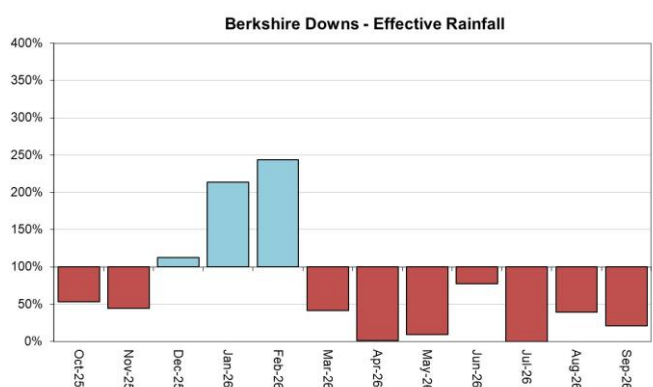
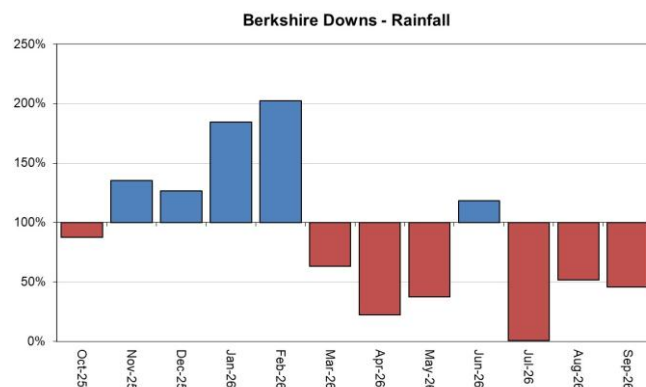
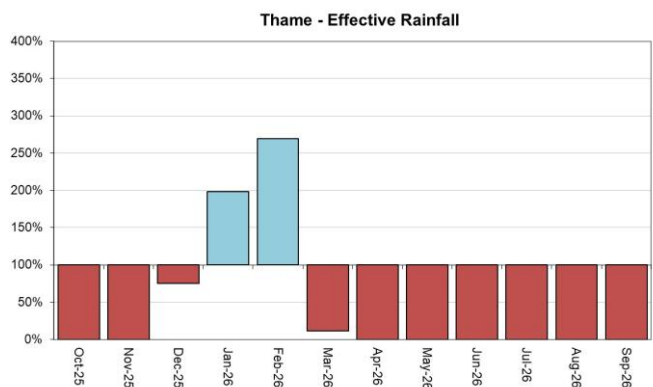
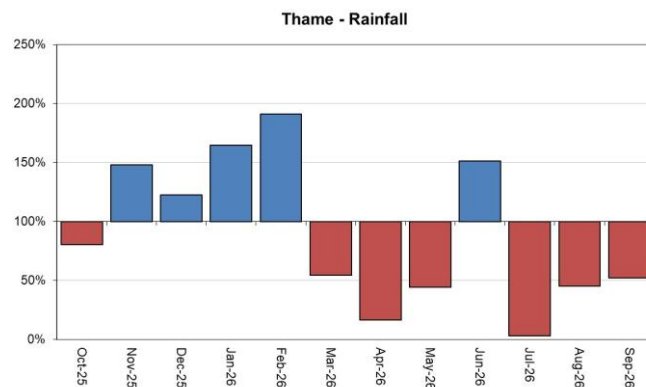
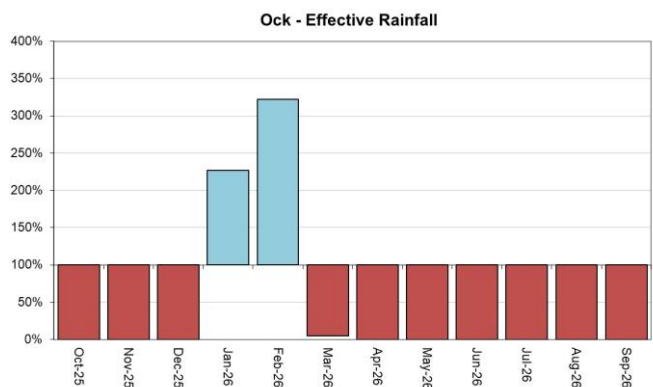
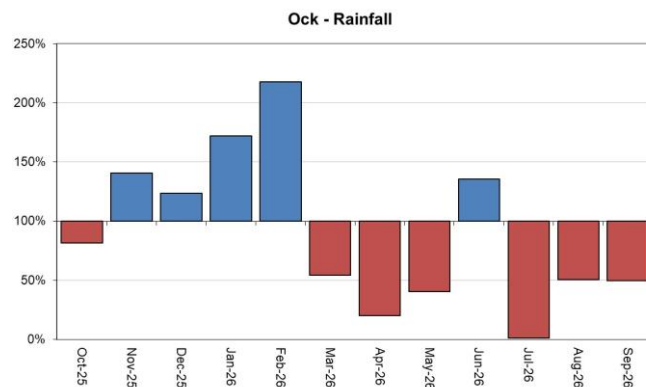
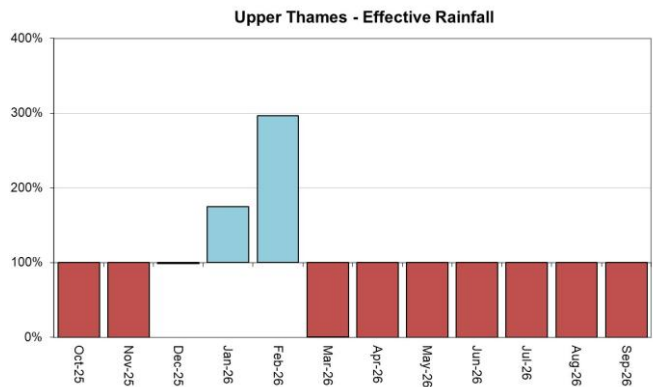
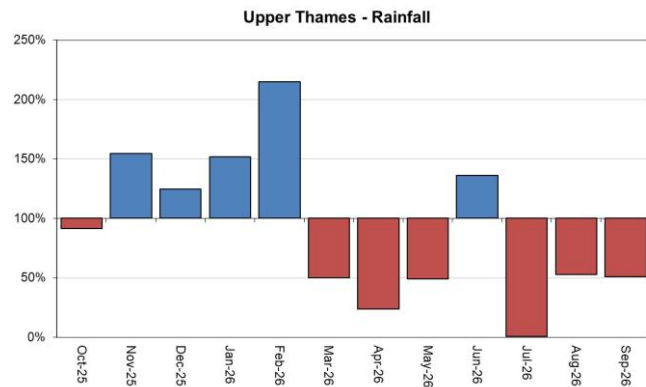


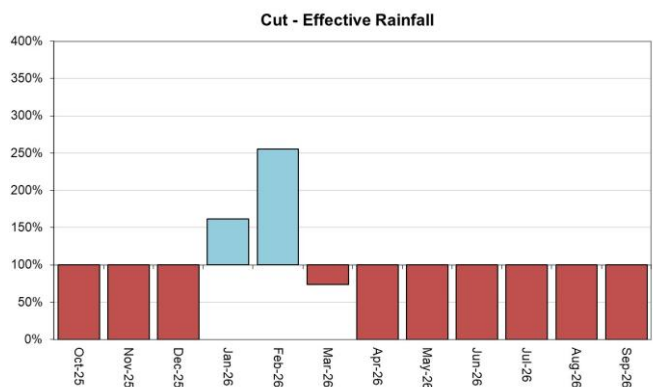
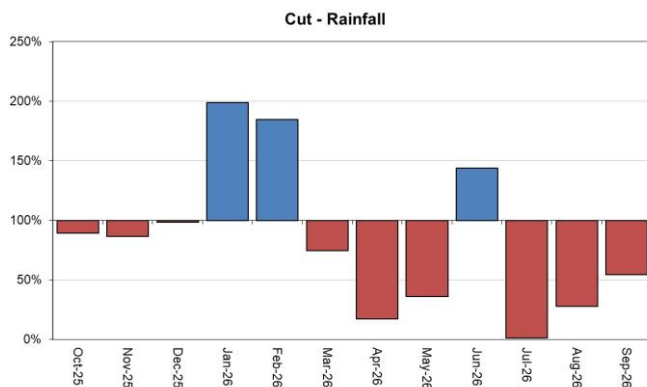
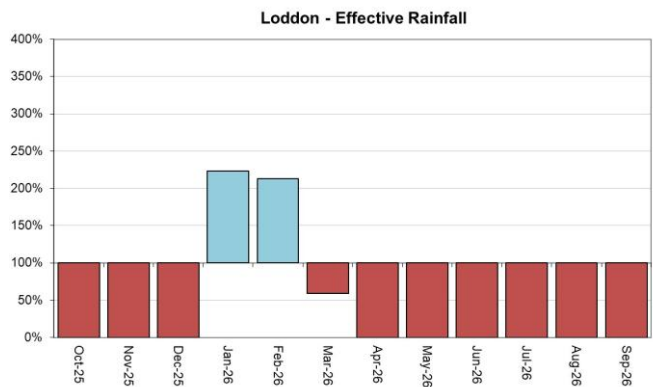
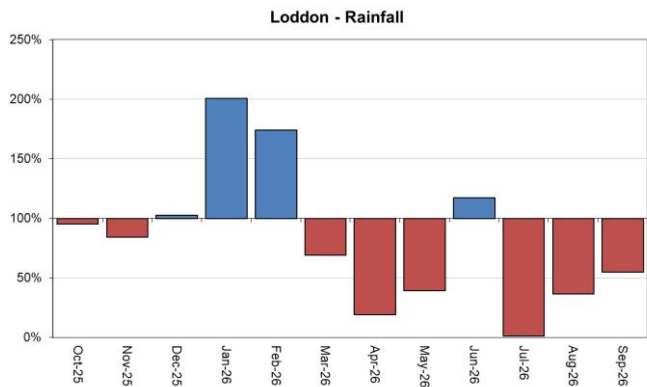
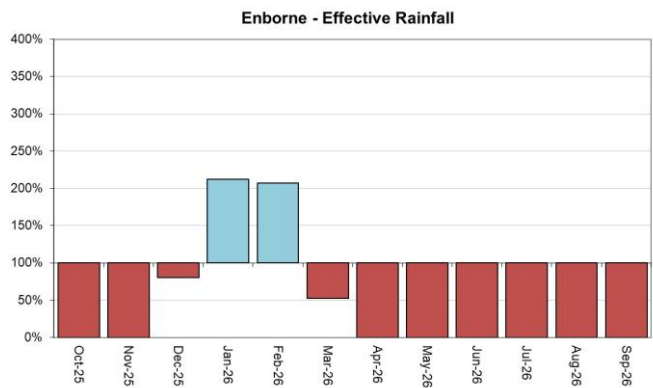
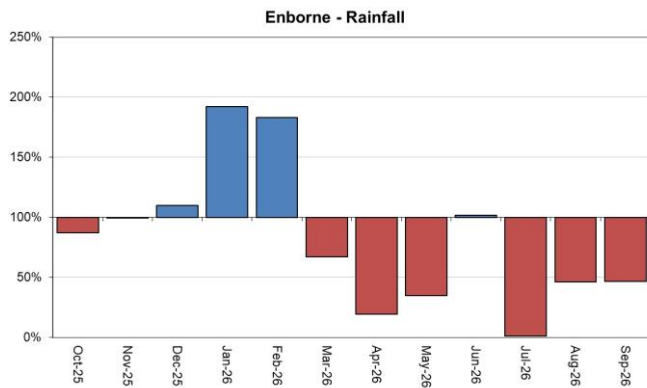
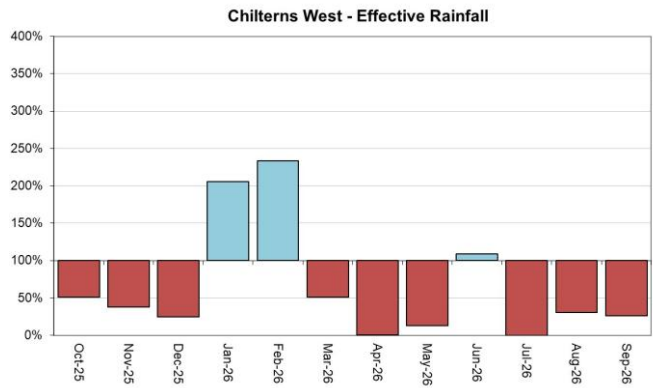
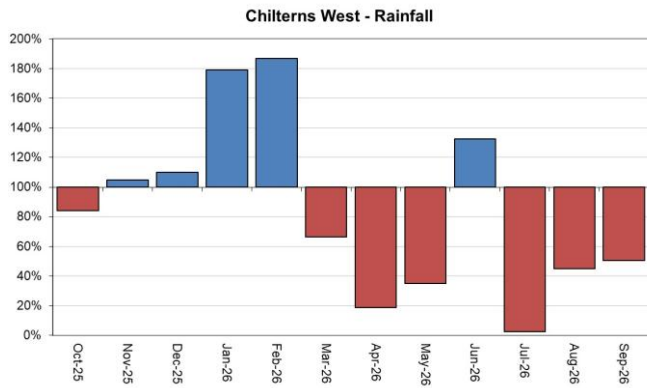
HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2026). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved. Environment Agency, 100024198, 2026.

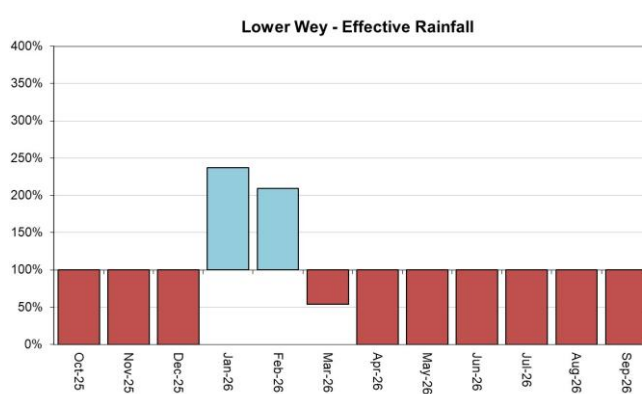
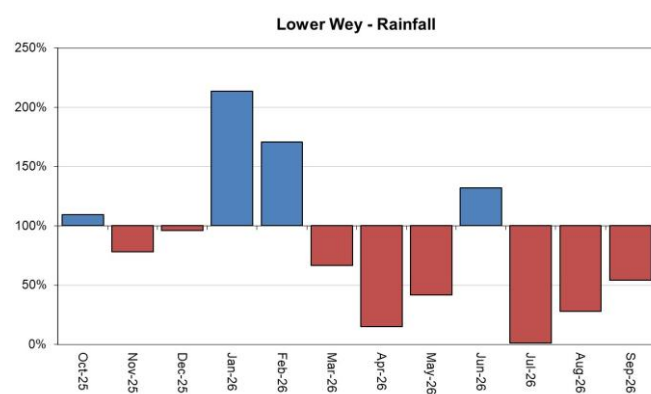
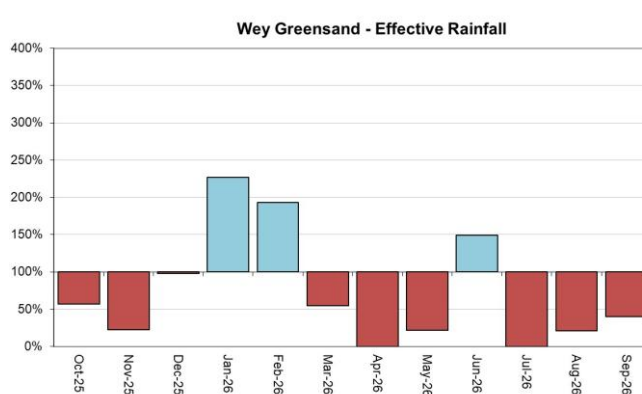
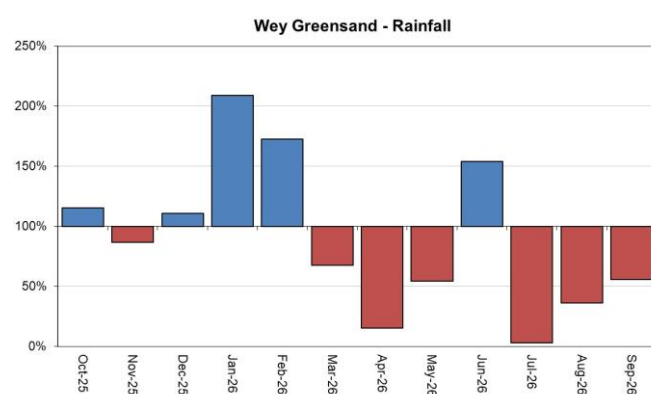
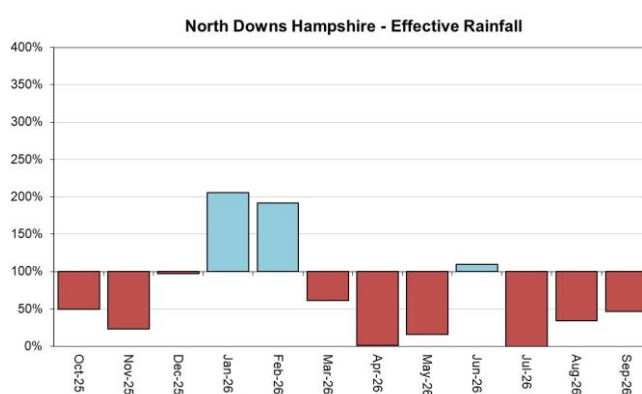
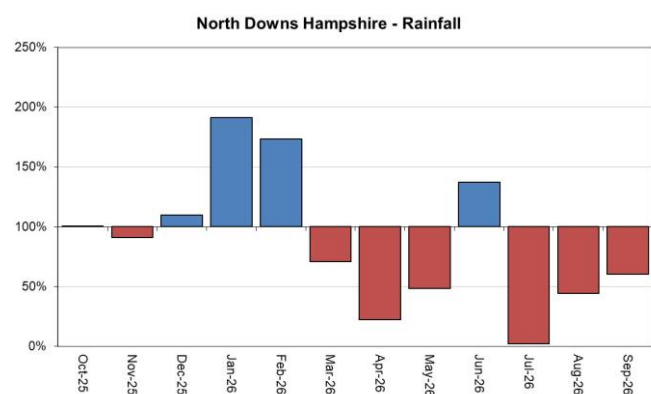
2.3 Rainfall charts

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.









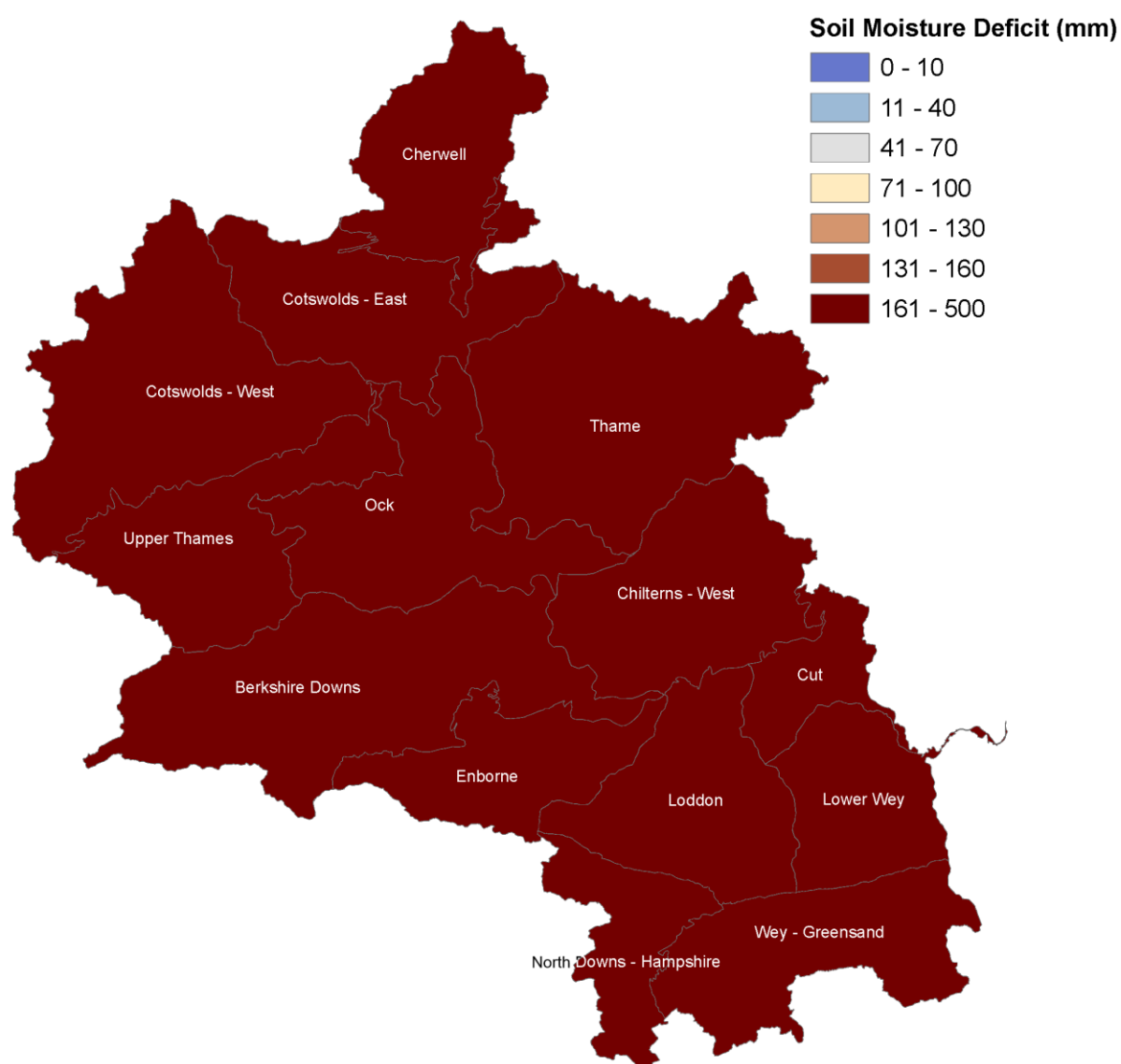
HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

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

3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for the week ending 30 September 2026. Shows the areal soil moisture deficits estimate in millimetres.

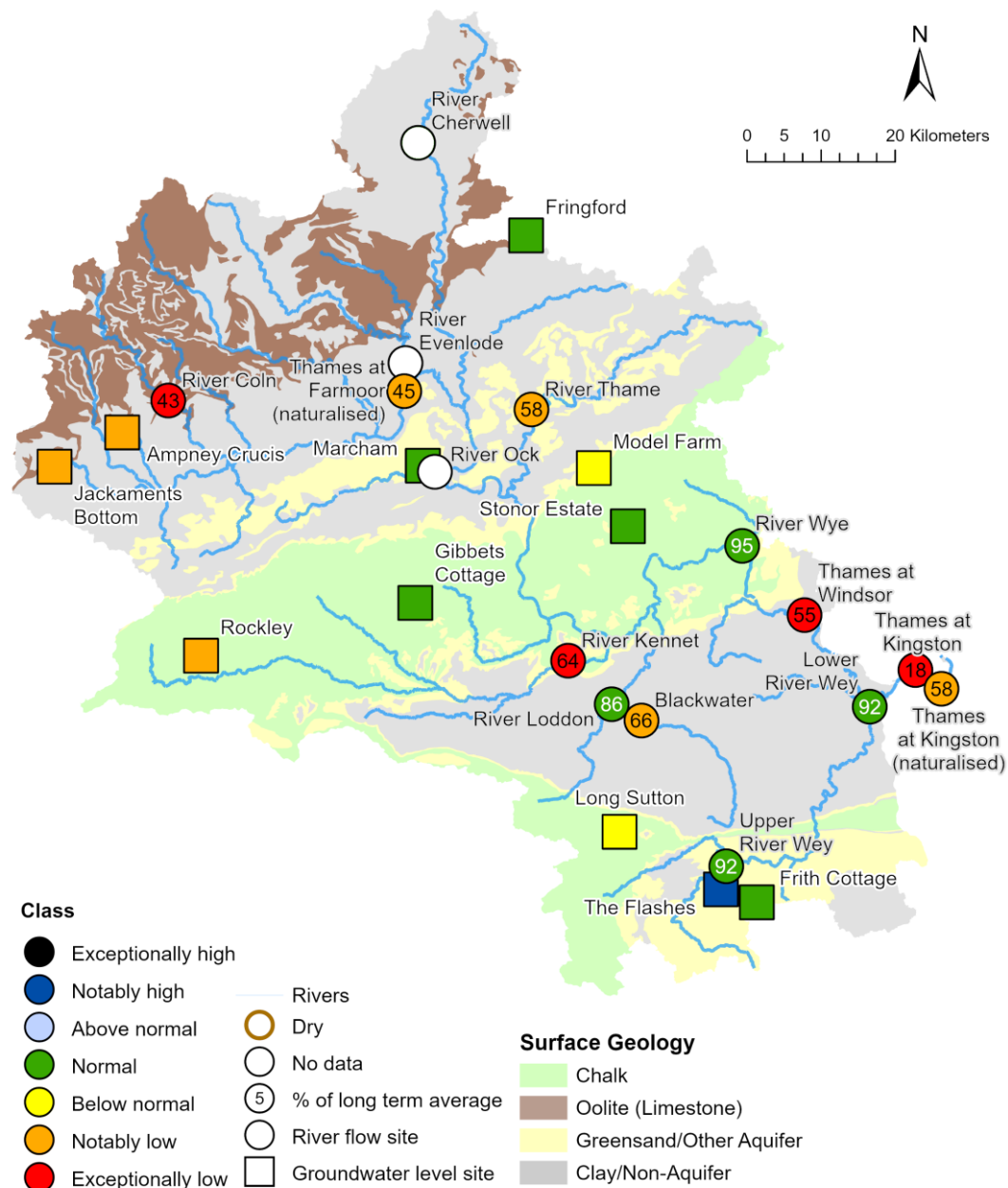


(Source: Met Office. Crown copyright, 2026). All rights reserved. Environment Agency, 100024198, 2026.

4 River Flow and Groundwater Status

4.1 River flow and groundwater level map

Figure 4.1: Monthly mean river flow for indicator sites and end of month groundwater levels for indicator sites for September 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic September means.

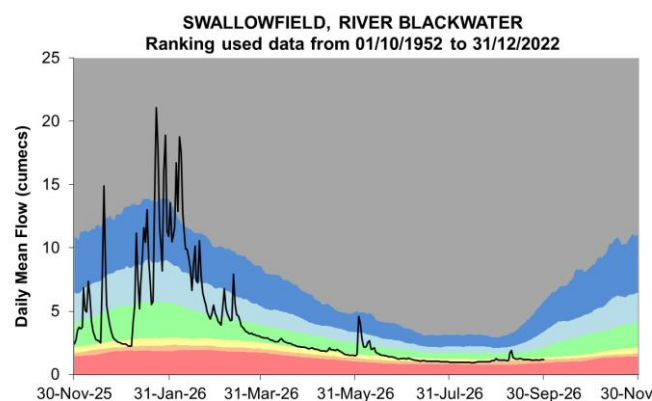
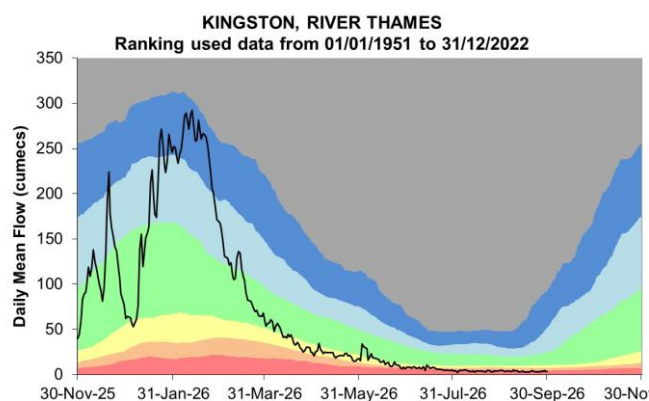
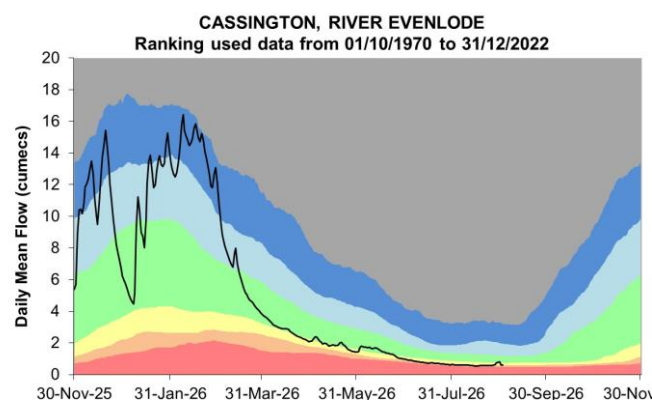
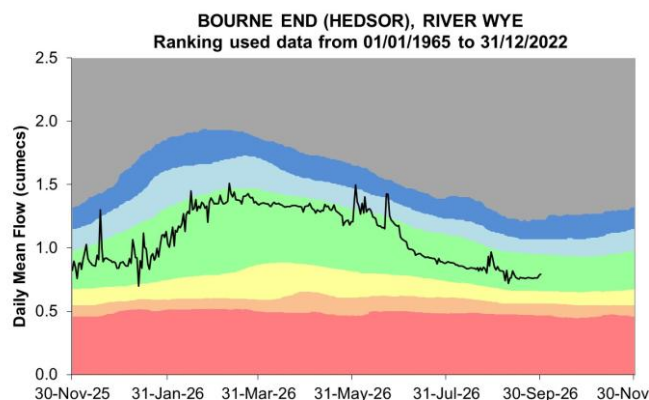
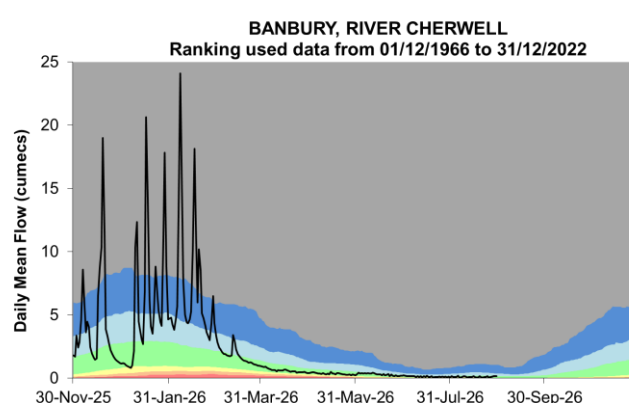
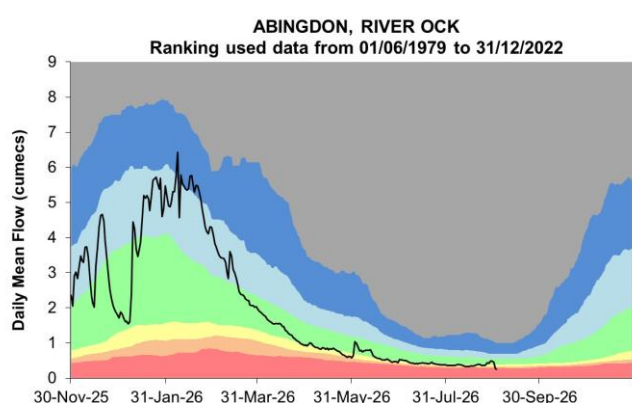
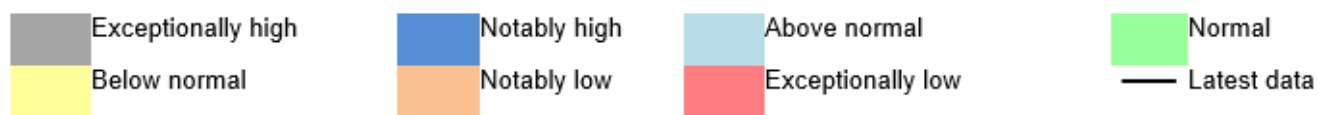


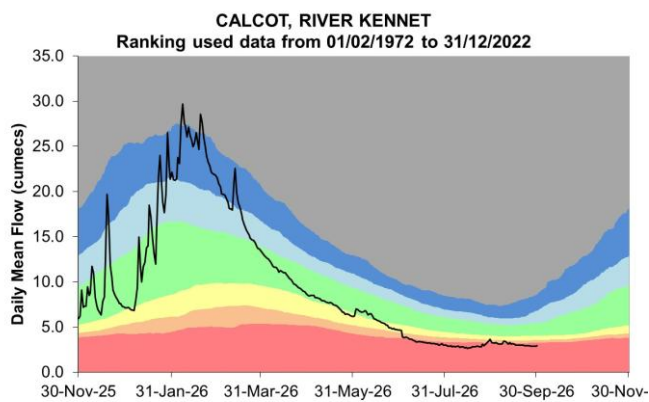
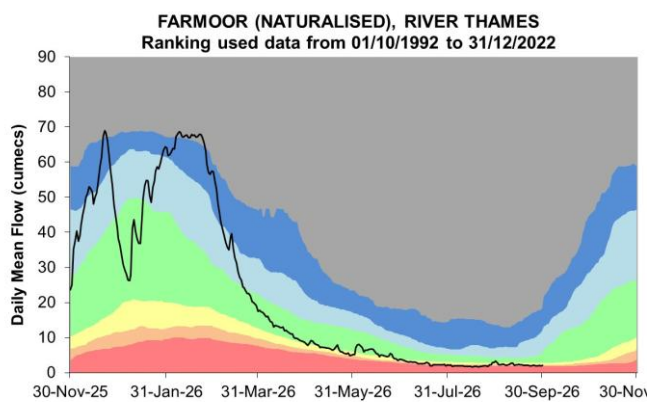
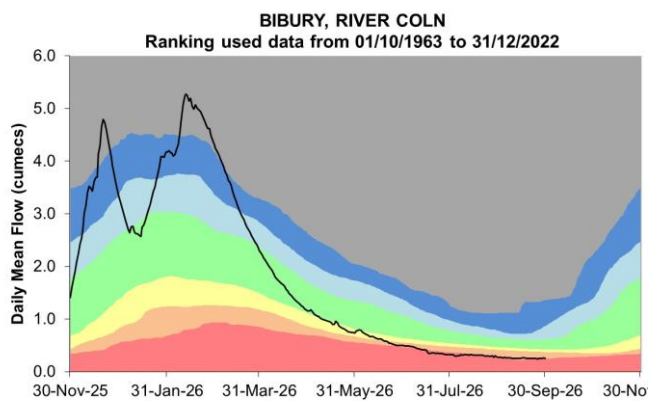
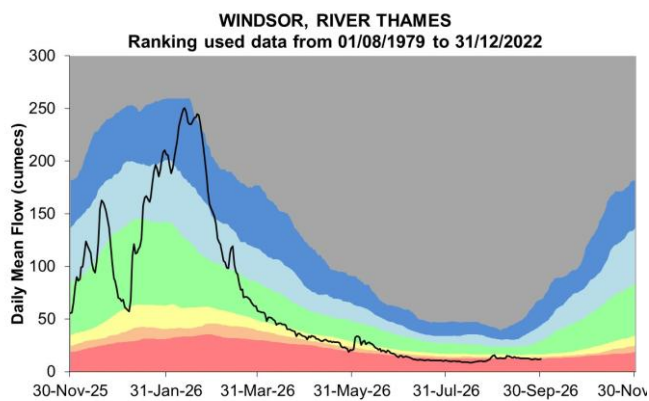
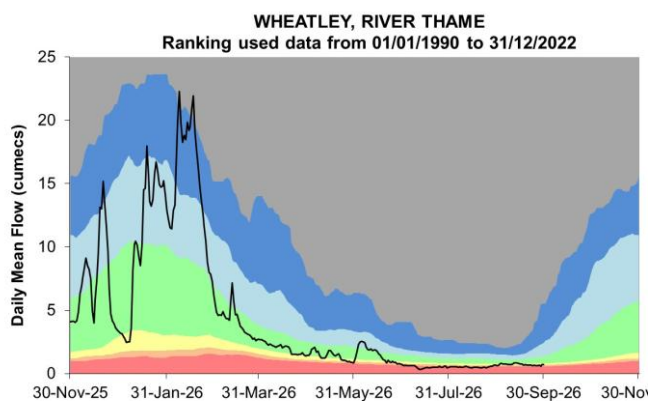
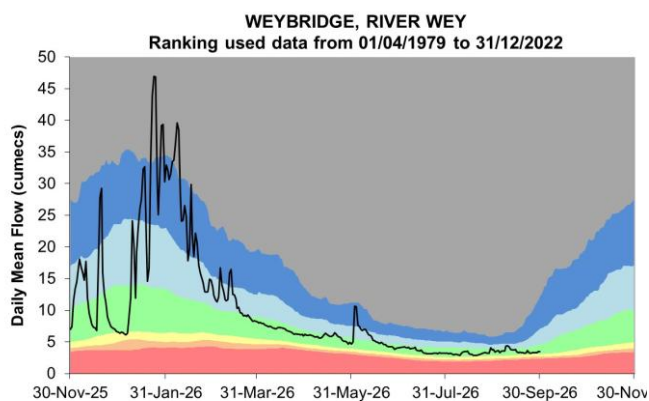
(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2026.

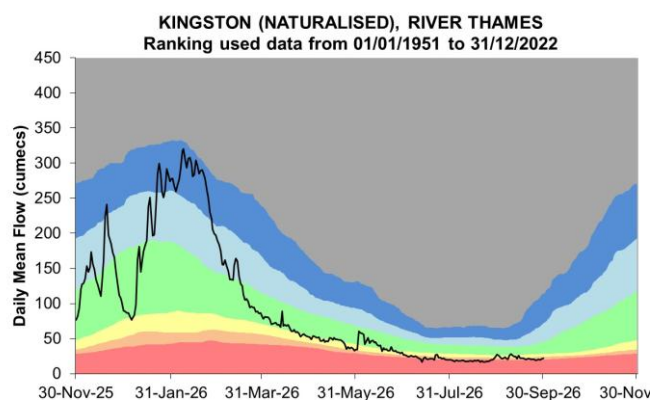
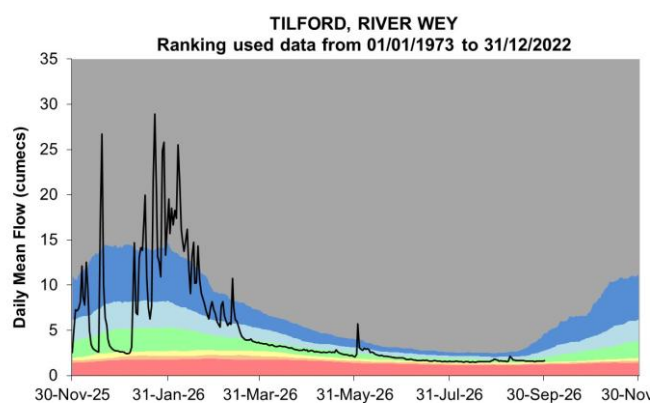
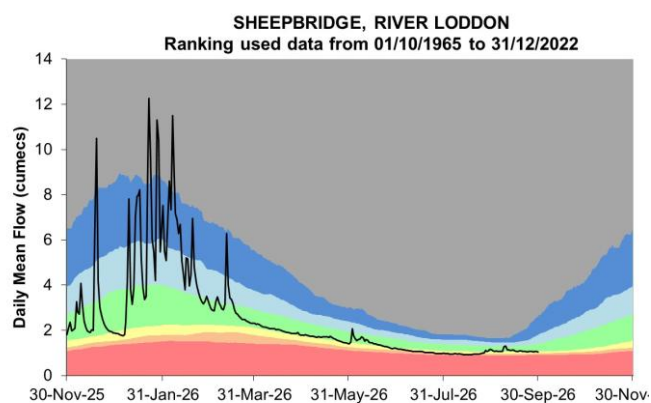
5 River flows

5.1 River flow charts

Figure 5.1: Daily mean river flows for indicator sites compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.







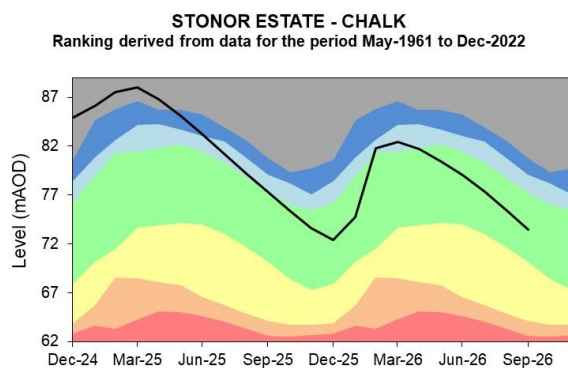
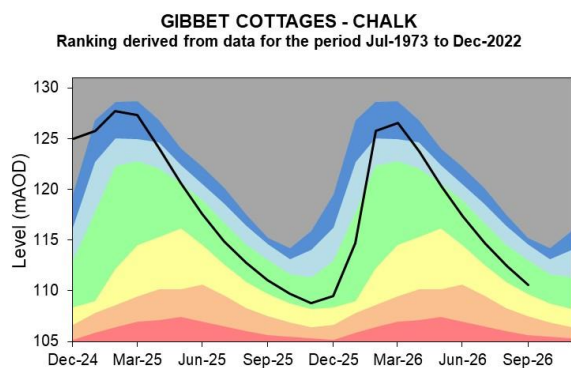
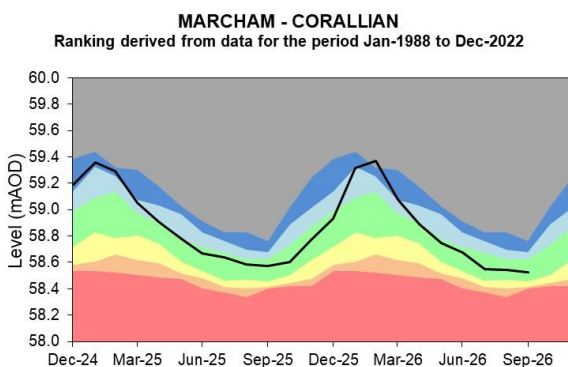
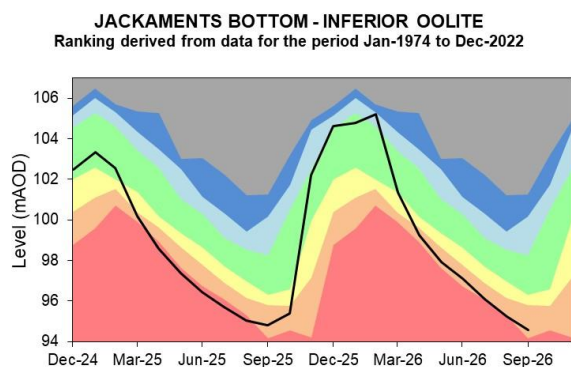
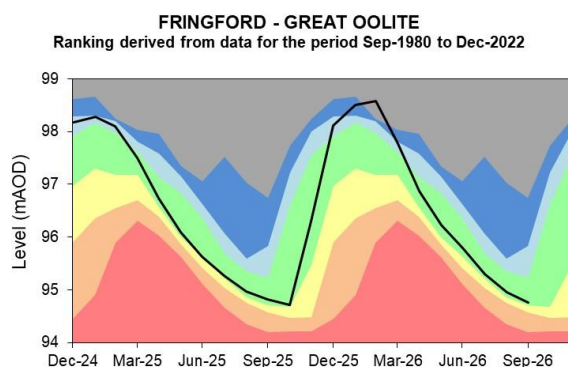
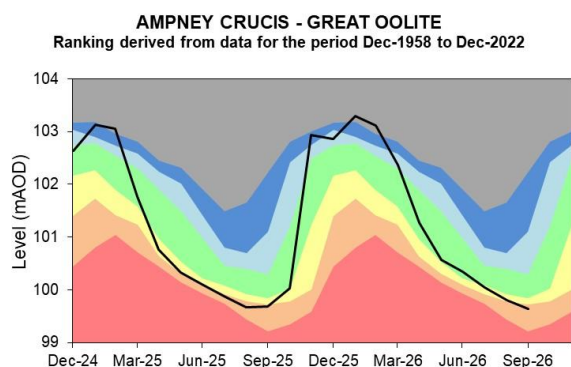
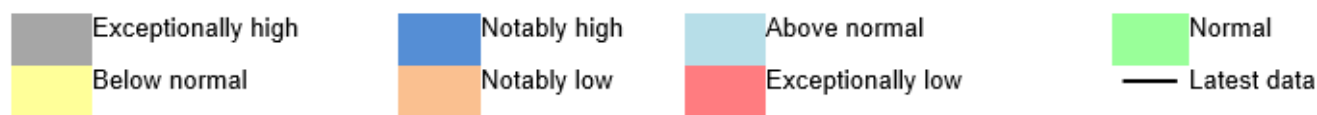
Source: Environment Agency.

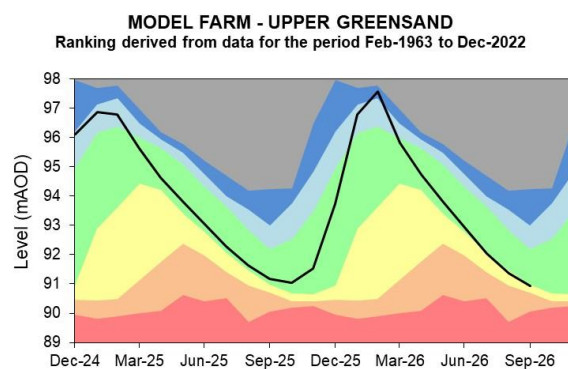
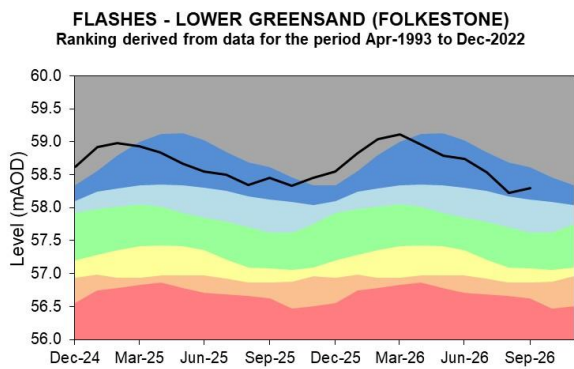
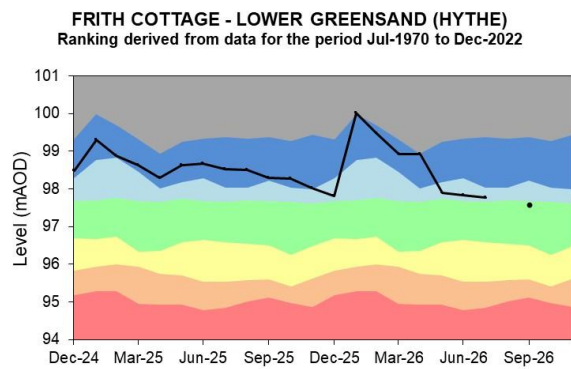
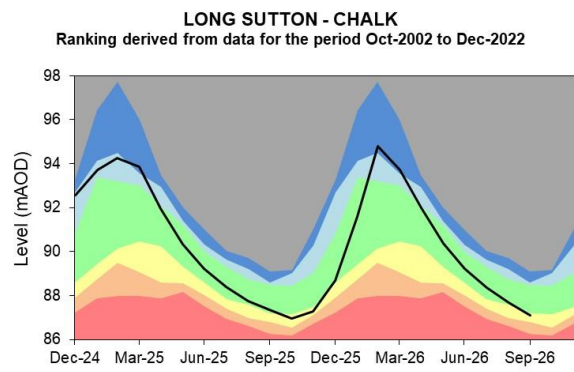
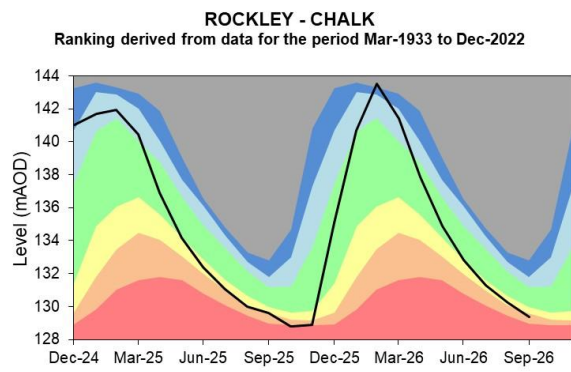
Note: September 2026 data for the River Ock at Abingdon, the River Cherwell at Banbury, and the River Evenlode at Cassington have been omitted due to excessive weed growth affecting the reliability of flow measurements.

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, and long term maximum and minimum levels.

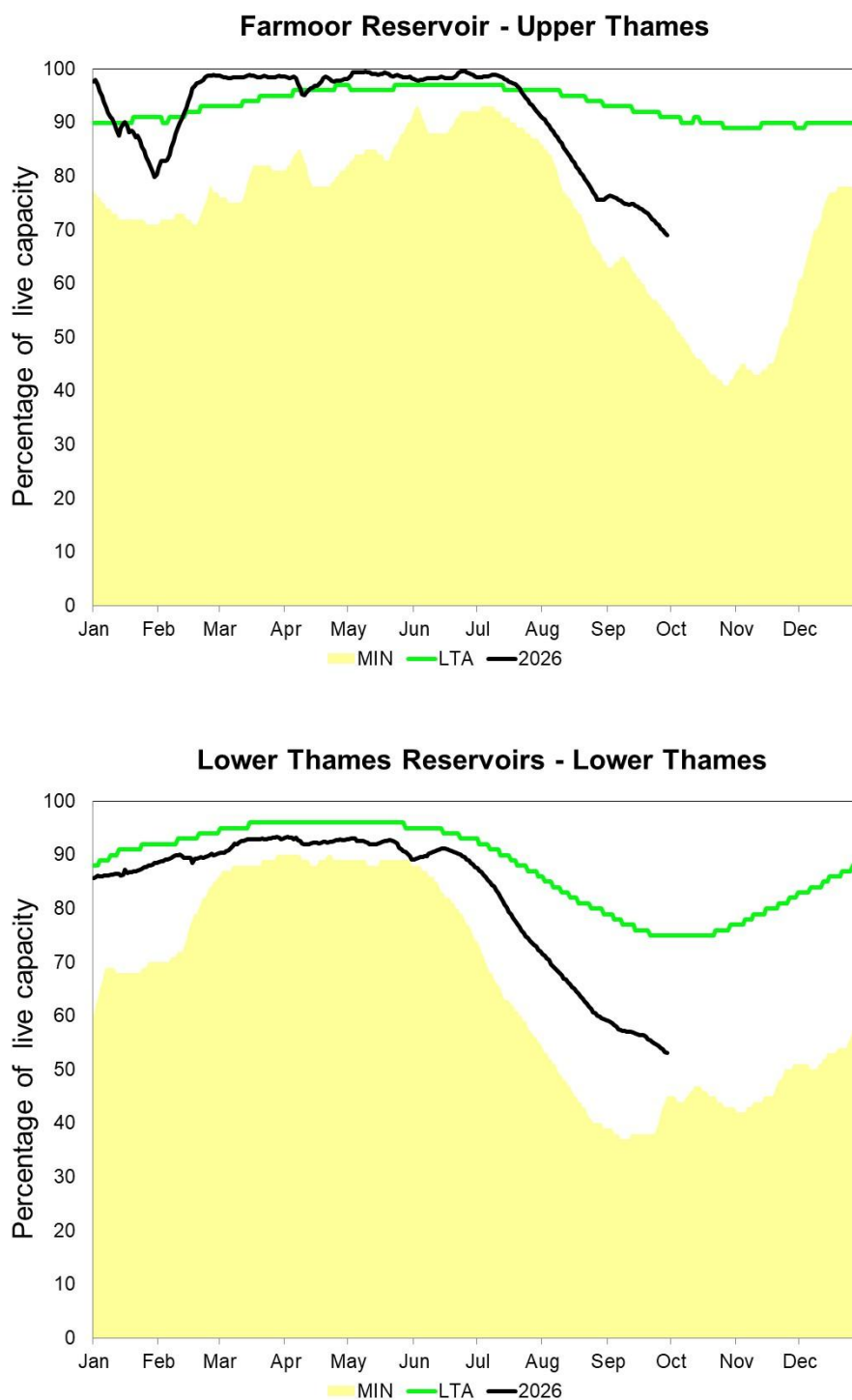




Source: Environment Agency, 2026.

7 Reservoir stocks

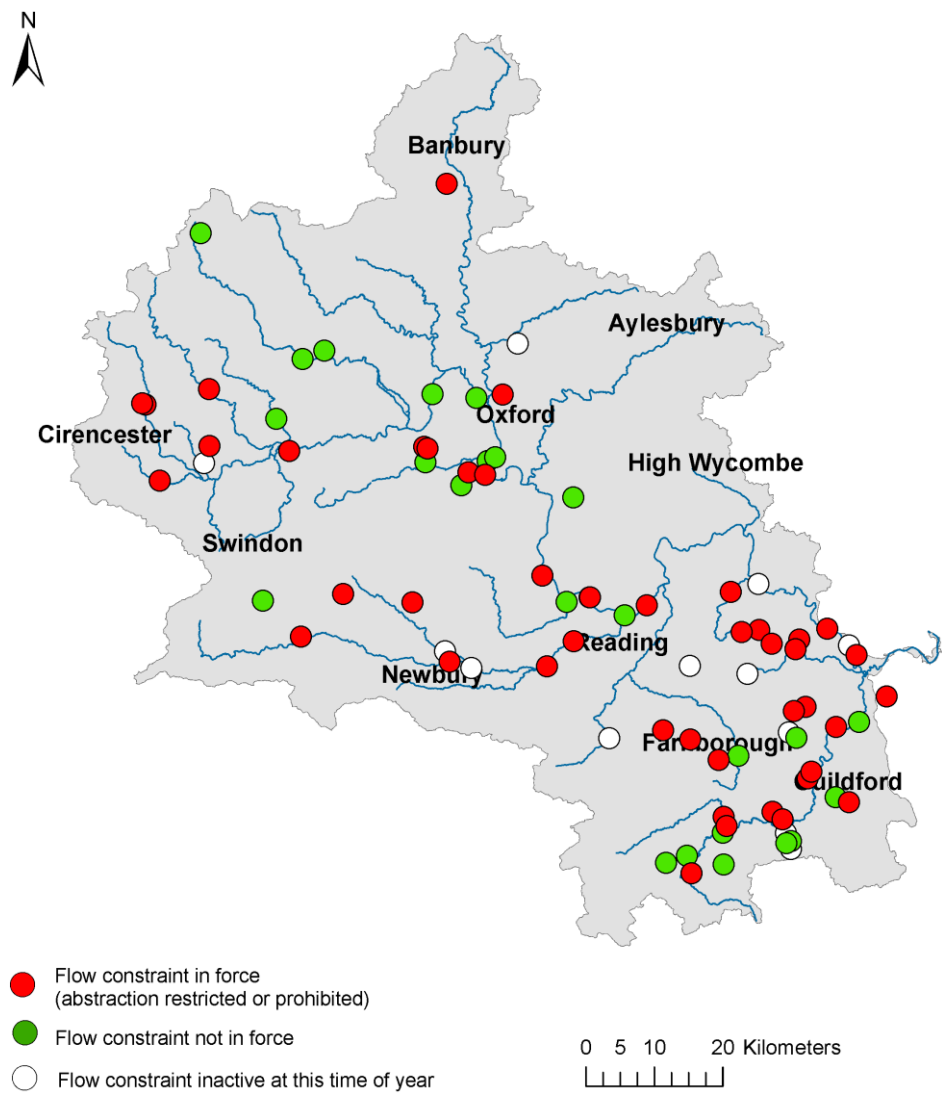
Figure 7.1: End of month regional reservoir stocks compared to minimum and average stocks.



(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	06/09/2026	13/09/2026	20/09/2026	27/09/2026
Number of constraints active	46	43	46	51

9 Summary of rainfall, effective rainfall and soil moisture deficit

9.1 Rainfall and effective rainfall

Hydrological Area	Rainfall (mm) September Total	Rainfall (mm) September LTA	Rainfall (mm) % LTA	Effective rainfall (mm) September total	Effective rainfall (mm) September LTA	Effective rainfall (mm) % LTA
Cotswolds - West	36	64	56	2	11	21
Cotswolds - East	32	57	56	2	9	23
Berkshire Downs	27	59	46	1	7	21
Chilterns - West	30	58	51	2	7	26
North Downs - Hampshire	40	67	61	3	8	46
Wey - Greensand	36	65	56	3	7	40
Upper Thames	27	53	51	0	0	0
Cherwell	32	56	57	0	2	0
Thame	28	53	52	0	0	0
Loddon	30	55	54	0	0	-
Lower Wey	30	56	54	0	0	-
Ock	25	51	49	0	0	-
Enborne	26	57	46	0	1	0
Cut	28	52	54	0	0	-
Thames Area	31	57	53	1	4	27

HadUK rainfall data (Source: Met Office Crown copyright 2025)
EA effective rainfall data (Source: EA Soil Moisture Model)

9.2 Soil moisture deficit

Hydrological Area	SMD (mm) End September	SMD (mm) End September LTA
Cotswolds - West	161	63
Cotswolds - East	167	69
Berkshire Downs	207	102
Chilterns - West	206	107
North Downs - Hampshire	200	98
Wey - Greensand	200	100
Upper Thames	203	103
Cherwell	194	89
Thame	205	103
Loddon	216	109
Lower Wey	208	105
Ock	212	113
Enborne	214	102
Cut	215	118
Thames Area	201	99

HadUK rainfall data (Source: Met Office Crown copyright 2025)
EA effective rainfall data (Source: EA Soil Moisture Model)

9.3 Summer rainfall and effective rainfall

Summer period: 01/04/2026 to 30/09/2026						
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	210	381	55	14	65	22
Cotswolds - East	187	351	53	12	54	22
Berkshire Downs	160	353	45	9	49	18
Chilterns - West	158	333	47	9	41	23
North Downs - Hampshire	193	369	52	14	56	25
Wey - Greensand	184	354	52	14	51	27
Upper Thames	172	331	52	0	14	0
Cherwell	176	345	51	0	22	0
Thame	161	314	51	0	12	0
Loddon	138	311	44	0	11	0
Lower Wey	140	309	45	0	10	0
Ock	152	309	49	0	10	0
Enborne	138	331	42	0	20	0
Cut	138	297	47	0	7	0
Thames Area	165	335	49	5	30	17

HadUK rainfall data (Source: Met Office Crown copyright 2025)

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

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	Sep 2026 rainfall % of long term average 1991 to 2020	Sep 2026 band	Jul 2026 to September cumulative band	Apr 2026 to September cumulative band	Oct 2025 to September cumulative band
Berkshire Downs	46	Below Normal	Exceptionally low	Exceptionally low	Normal
Chilterns West	51	Below Normal	Exceptionally low	Exceptionally low	Normal
Cotswold East	57	Below Normal	Exceptionally low	Exceptionally low	Normal
Cotswold West	56	Below Normal	Exceptionally low	Exceptionally low	Normal
Cut	55	Below Normal	Exceptionally low	Exceptionally low	Below normal
Enborne	46	Below Normal	Exceptionally low	Exceptionally low	Normal
Loddon	55	Below Normal	Exceptionally low	Exceptionally low	Below normal
Lower Wey	54	Below Normal	Exceptionally low	Exceptionally low	Normal
North Downs Hampshire	60	Normal	Exceptionally low	Exceptionally low	Normal

Hydrological area	Sep 2026 rainfall % of long term average 1991 to 2020	Sep 2026 band	Jul 2026 to September cumulative band	Apr 2026 to September cumulative band	Oct 2025 to September cumulative band
Ock	50	Below Normal	Exceptionally low	Exceptionally low	Normal
Thame	52	Below Normal	Exceptionally low	Exceptionally low	Normal
Upper Cherwell	57	Below Normal	Exceptionally low	Exceptionally low	Normal
Upper Thames	51	Below Normal	Exceptionally low	Exceptionally low	Normal
Wey Greensand	56	Below Normal	Exceptionally low	Exceptionally low	Normal

11.2 River flows table

Site name	River	Catchment	Sep 2026 band	Aug 2026 band
Abingdon	River Ock	Ock	-	Normal
Banbury	River Cherwell	Cherwell Upper	-	Normal
Bibury	River Coln	Coln	Exceptionally low	Exceptionally low
Bourne End (Hedsor)	River Wye	Wye Bucks	Normal	Normal
Calcot	River Kennet	Kennet	Exceptionally low	Exceptionally low
Cassington	River Evenlode	Evenlode	-	Notably low
Farmoor (naturalised)	River Thames	Thames	Notably low	Notably low
Kingston	River Thames	Thames North Bank	Exceptionally low	Exceptionally low
Sheepbridge	River Loddon	Loddon	Normal	Notably low
Swallowfield	River Blackwater	Loddon	Notably low	Notably low
Tilford	River Wey	Wey Addlestone Bourne	Normal	Normal
Weybridge	River Wey	Wey Addlestone Bourne	Normal	Normal

Site name	River	Catchment	Sep 2026 band	Aug 2026 band
Wheatley	River Thame	Thame	Notably low	Exceptionally low
Windsor	River Thames	Thames	Exceptionally low	Exceptionally low
Kingston (naturalised)	River Thames	Thames North Bank	Notably low	Exceptionally low

11.3 Groundwater table

Site name	Aquifer	End of Sep 2026 band	End of Aug 2026 band
Ampney Crucis OBH	Burford Oolitic Limestone (great)	Notably low	Below normal
Frith Cottage	Godalming Lower Greensand	Normal	-
Gibbet Cottages OBH	Berkshire Downs Chalk	Normal	Normal
Jackaments Bottom OBH	Burford Oolitic Limestone (inferior)	Notably low	Exceptionally low
Long Sutton	North Downs Chalk	Below normal	Normal
Marcham OBH	Shrivenham Corallian	Normal	Normal
Model Farm	Chiltern Upper Greensand	Below normal	Below normal
Rockley OBH	Berkshire Downs Chalk	Notably low	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