Monthly water situation report: Thames Area

1 Summary - August 2025

Thames Area received 29mm of rainfall in August, which was 46% of the long term average (LTA). The soil moisture deficit (SMD) significantly increased across Thames area rising from 146mm in July to 170mm by the end of August. Monthly mean flows continued to decrease at majority of the key indicator sites with two of the indicator sites recording exceptionally low flows for the time of the year. Groundwater levels decreased at all the indicator sites and ranged from exceptionally low (Inferior Oolite) to notably high (Lower Greensand). Farmoor and Lower Thames reservoirs ended the month below the LTA.

1.1 Rainfall

August was a dry month with the majority of the month's rain falling in the last 6 days. Thames area received 29mm of rainfall in August, which was 46% of LTA. All our areal units received either notably low or below normal rainfall for the time of the year. The rainfall over the last 6 months, since March, was exceptionally low in all areal unit, and was the third driest 6 months on record for Thames area since 1871.

1.2 Soil moisture deficit and recharge

SMD has continued to increase across Thames area rising from 146mm in July to 170mm by the end of August. This was nearly double the LTA of 97mm for the time of year, indicating that soils are considerably drier than expected and was the second highest for August since 1961.

1.3 River flows

Monthly mean flows continued to decreased at majority of the key indicator sites compared to last month. This is partly due to declining groundwater levels and dry conditions across the area in August. Across the total number of indicator sites, 6 sites recorded normal river flows while 9 other sites (60%) recorded flows that were below normal or lower for the time of the year. The River Coln at Bibury and River Thames at Windsor, have recorded exceptionally low flows since July and the August monthly mean flows for these sites were the fourth and the second lowest (respectively) on record.

1.4 Groundwater levels

Groundwater levels continue to decline at all of our indicator sites in July and ranged from exceptionally low (Jackaments Bottom, Inferior Oolite) to notably high (Frith Cottage and Flashes, Lower Greensand). Groundwater levels of all of sites remained in the same banding as last month, with the exception of Rockley (chalk) dropping into the notably low banding

from below normal. Overall, groundwater levels at oolites and chalk are normal or lower, whilst groundwater levels in the slower responding lower greensands remained notably high for the time of the year.

1.5 Reservoir stocks

Stocks in Farmoor reservoir decreased from 89.6% to 81.6% during August. Reservoir stocks decrease in the Lower Thames and ended the month at 66.6% compared to 79.1% at the end of July. Both the Farmoor reservoirs and Lower Thames reservoirs remained below the LTA for the time of the year.

1.6 Environmental impact

At the end of the month, 36 abstraction licences were being constrained in the area to protect water resources and the environment. There were no flood warnings or flood alert in force by the end of August.

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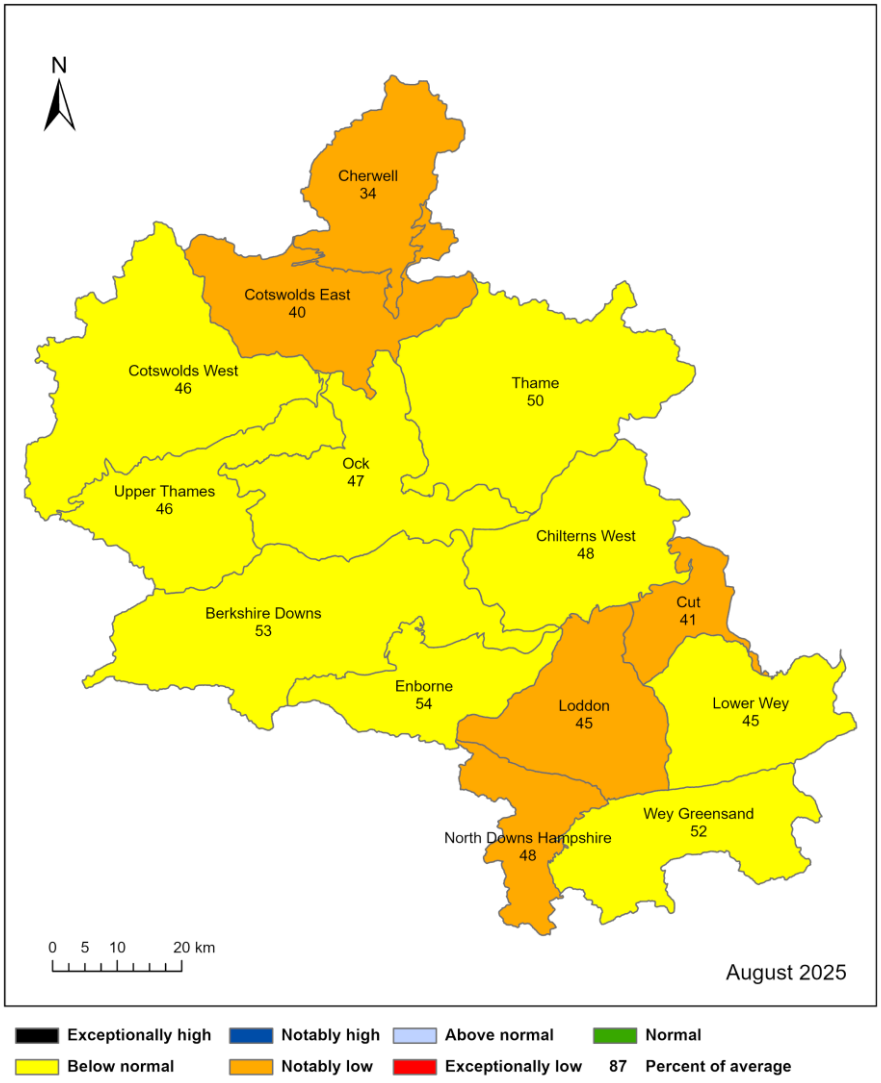
Contact Details: 030708 506 506

2 Rainfall

2.1 Rainfall map

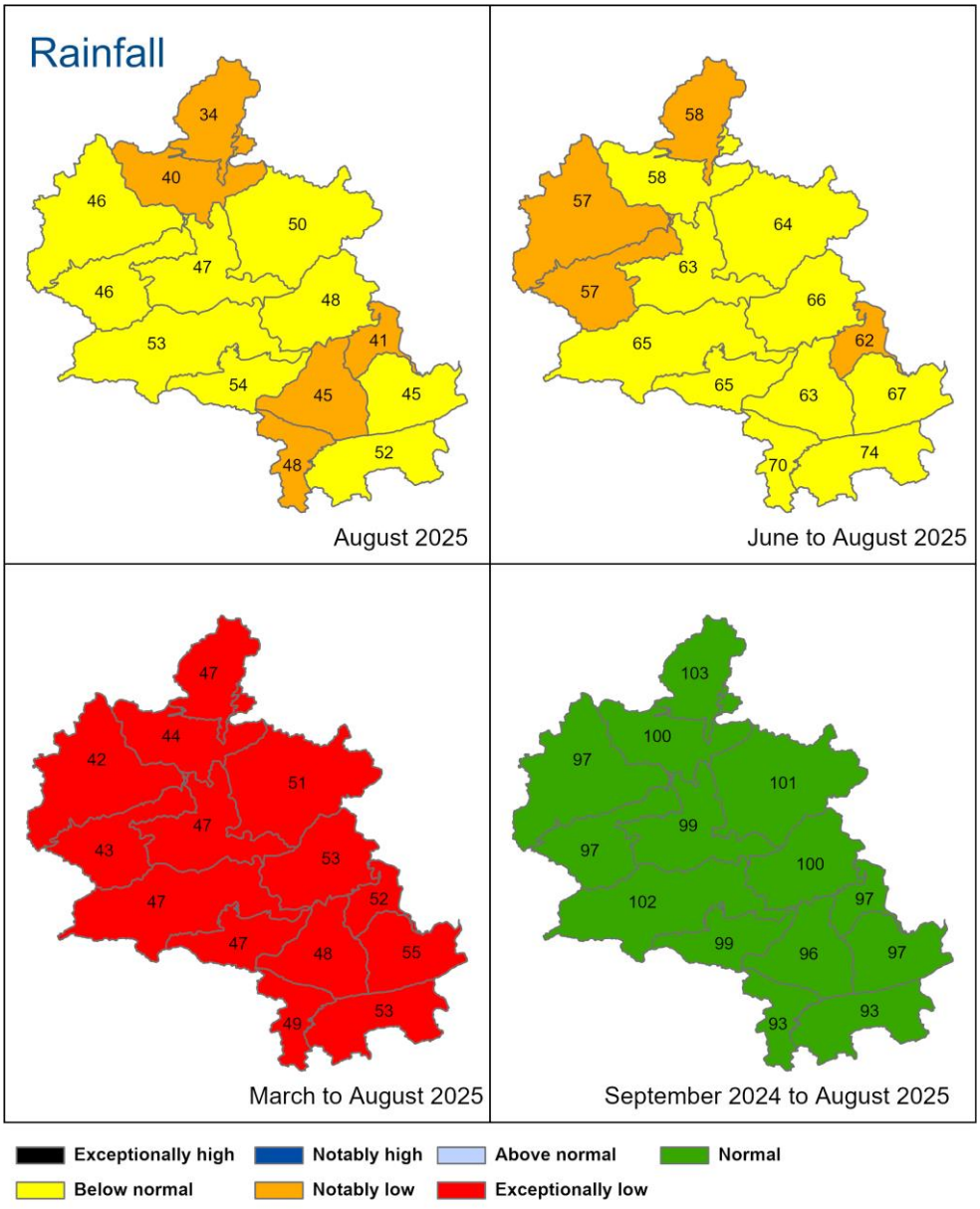
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 August 2025), classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



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, 2025). Rainfall data prior to 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

2.2 Rainfall map (2)

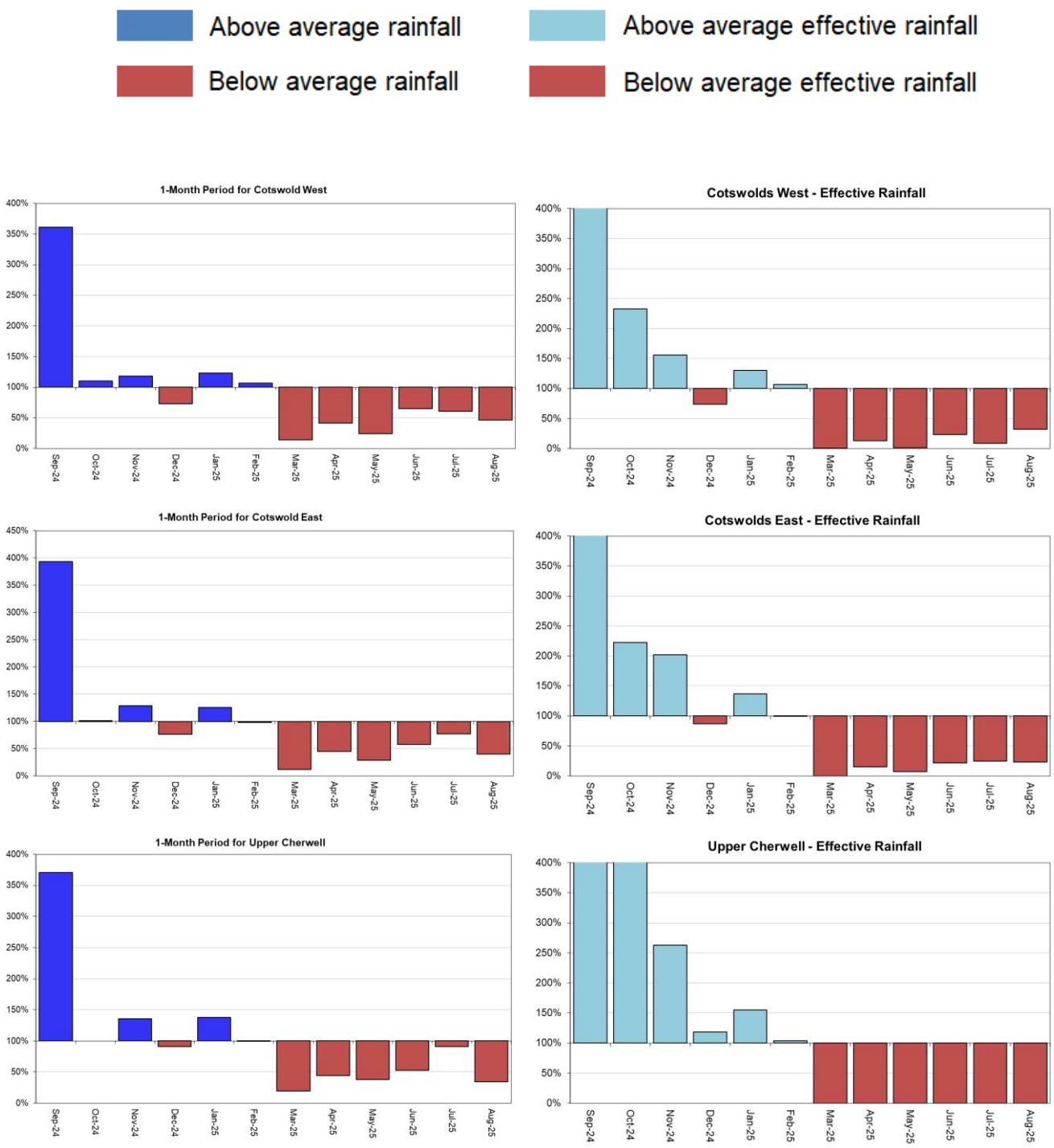
Figure 2.2: Total rainfall for hydrological areas for the current month (up to 31 August 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.

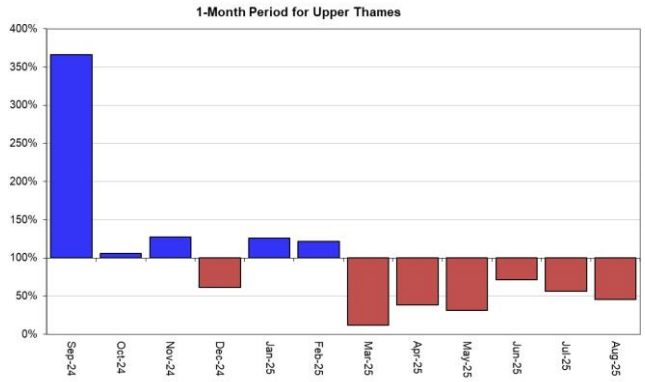


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2025). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.

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 areal unit.




1-Month Period for Upper Thames
400%
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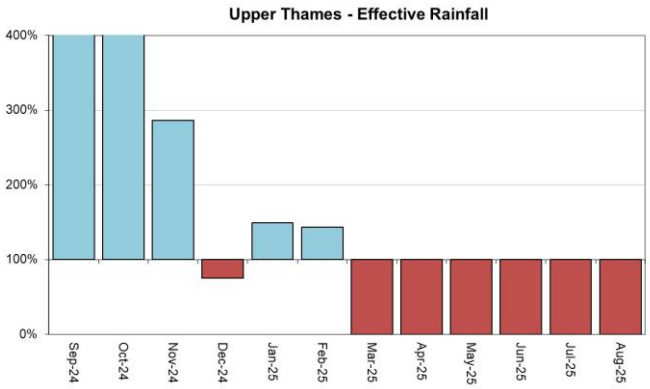
Upper Thames - Effective Rainfall
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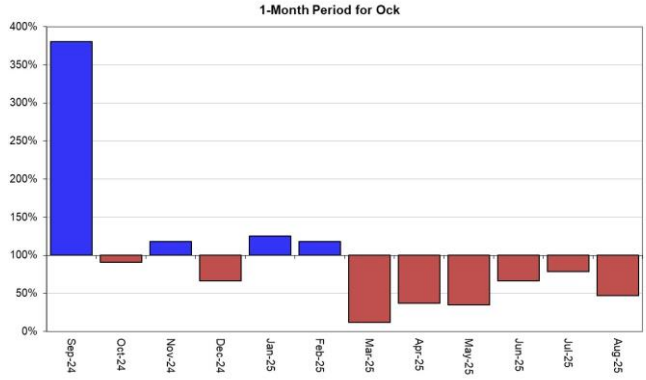
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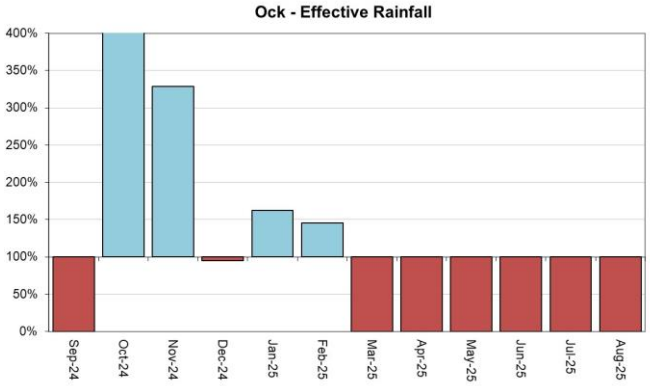
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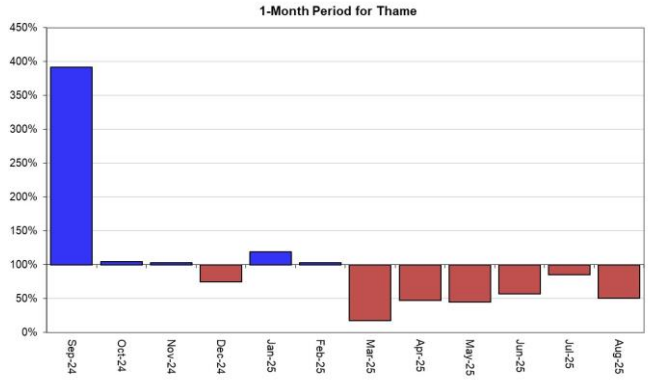
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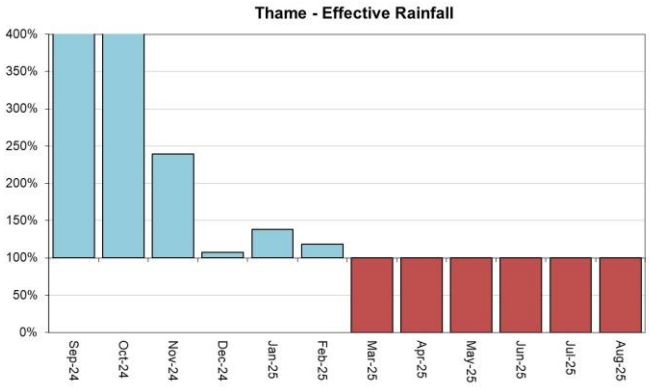
Thame - Effective Rainfall
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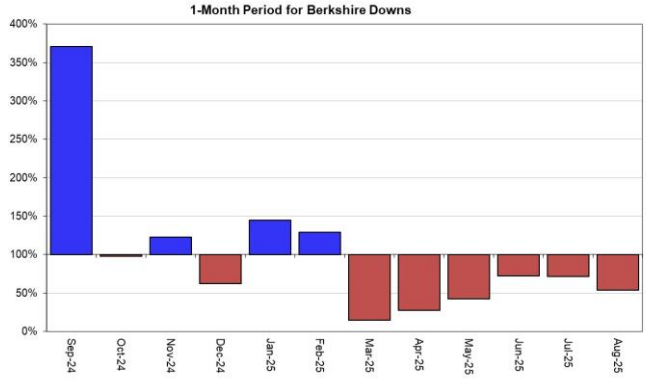
1-Month Period for Berkshire Downs
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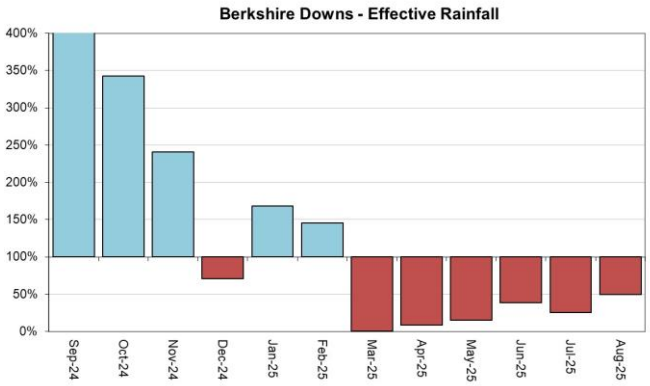
Berkshire Downs - Effective Rainfall
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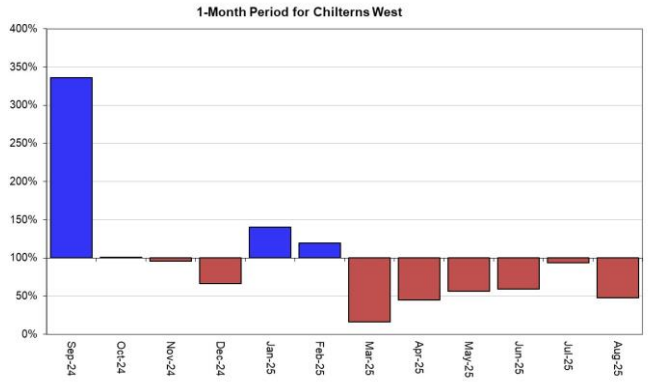
1-Month Period for Chilterns West
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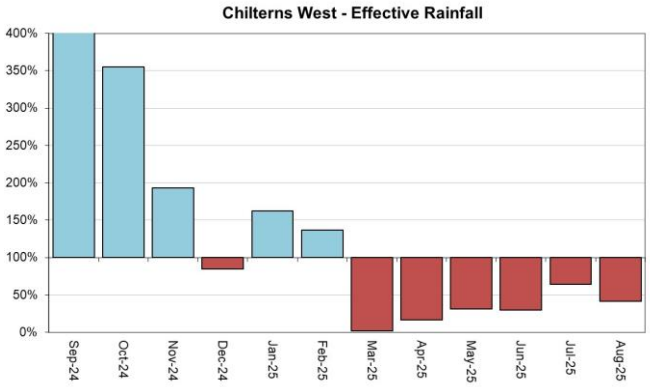
Chilterns West - Effective Rainfall
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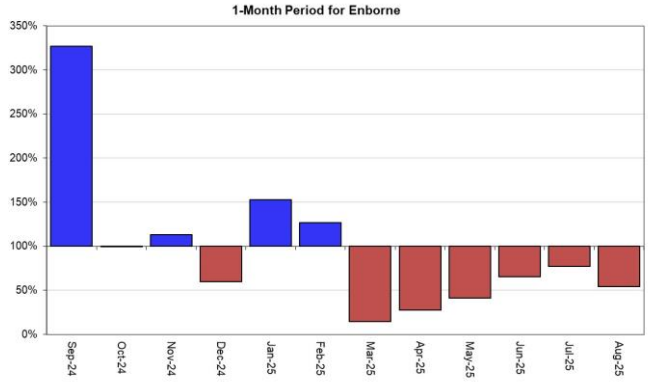
1-Month Period for Enborne
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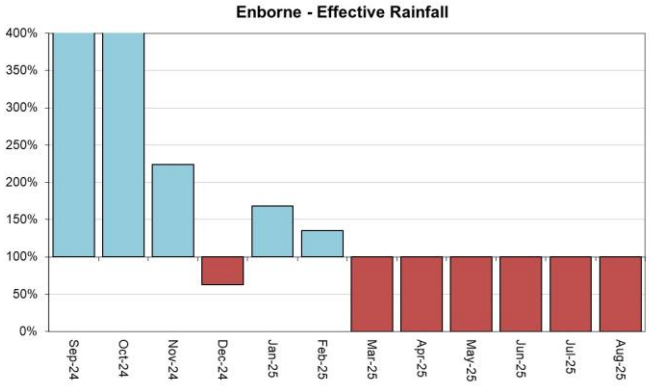
Enborne - Effective Rainfall
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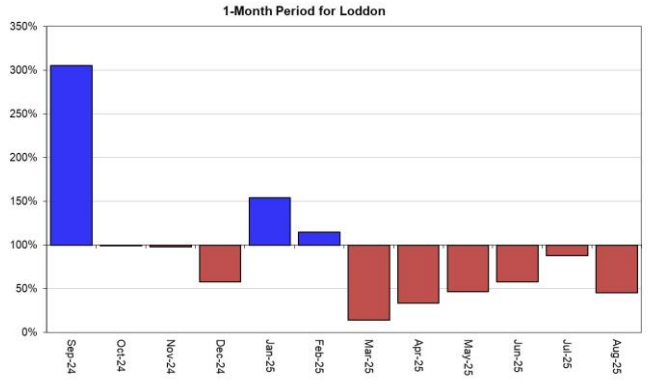
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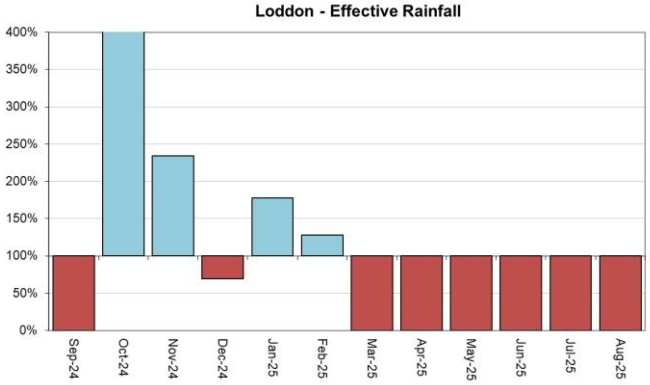
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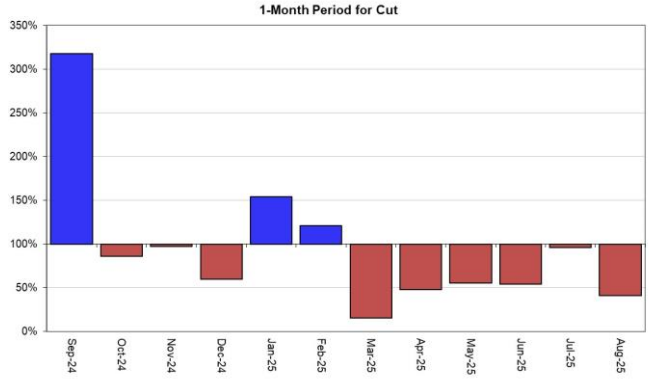
1-Month Period for Cut
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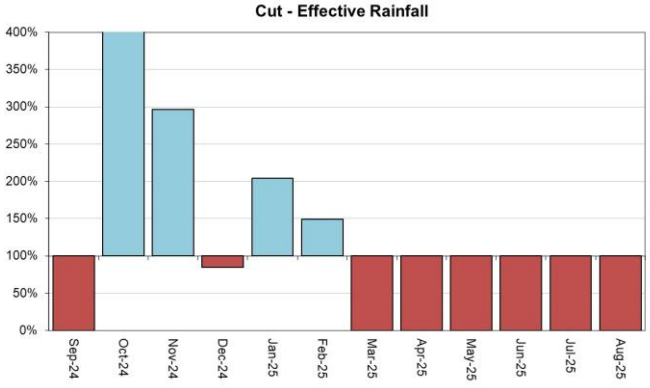
Cut - Effective Rainfall
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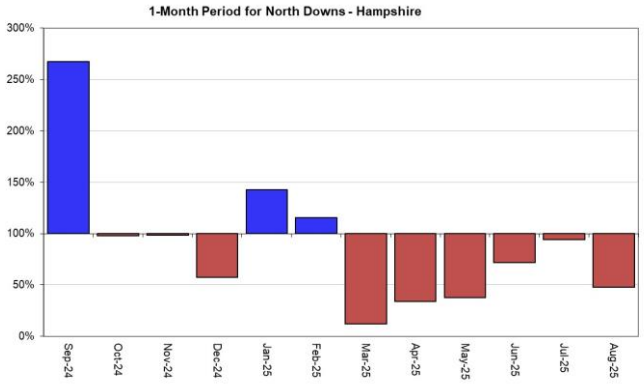
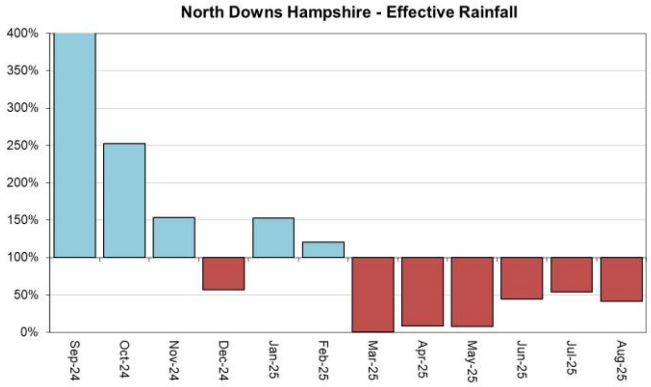
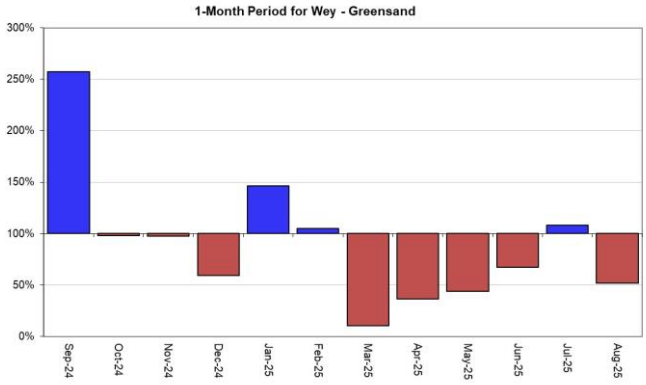
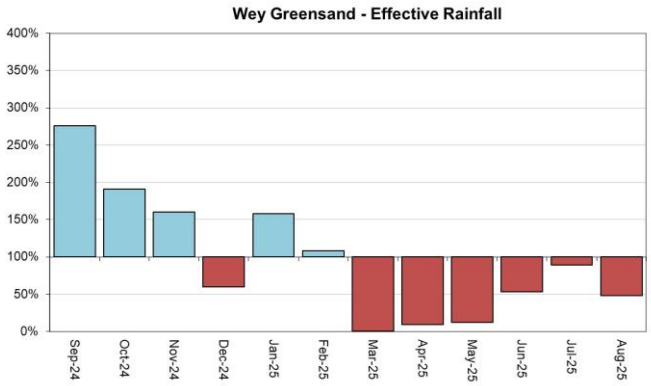
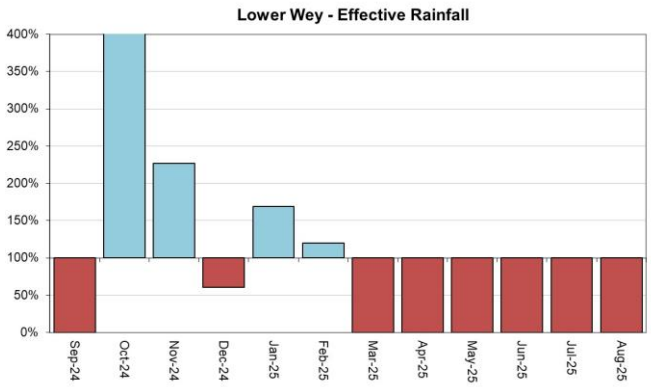










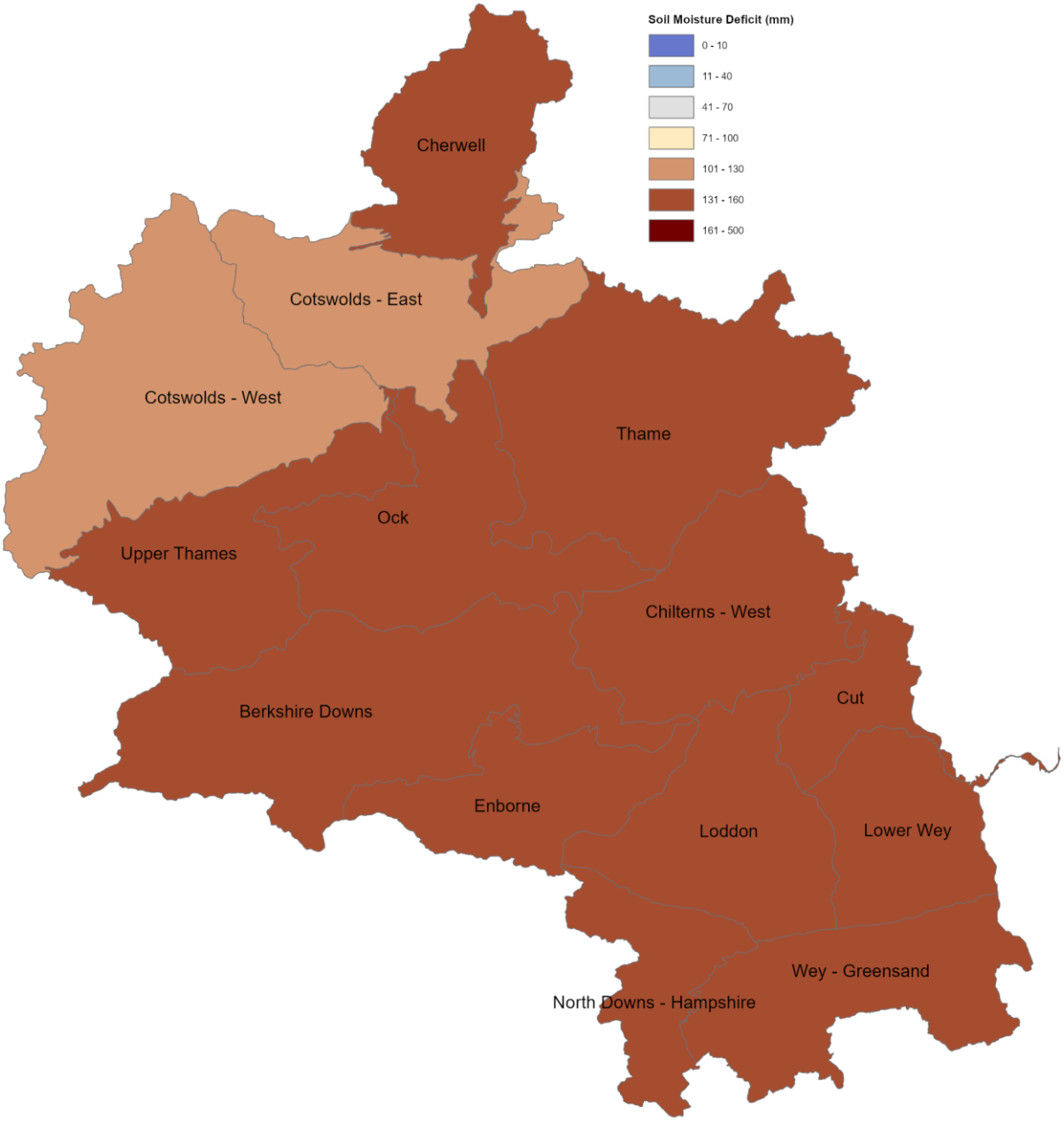
HadUK rainfall data. (Source: Met Office. Crown copyright, 2025).

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

3 Soil moisture deficit

3.1 Soil moisture deficit map

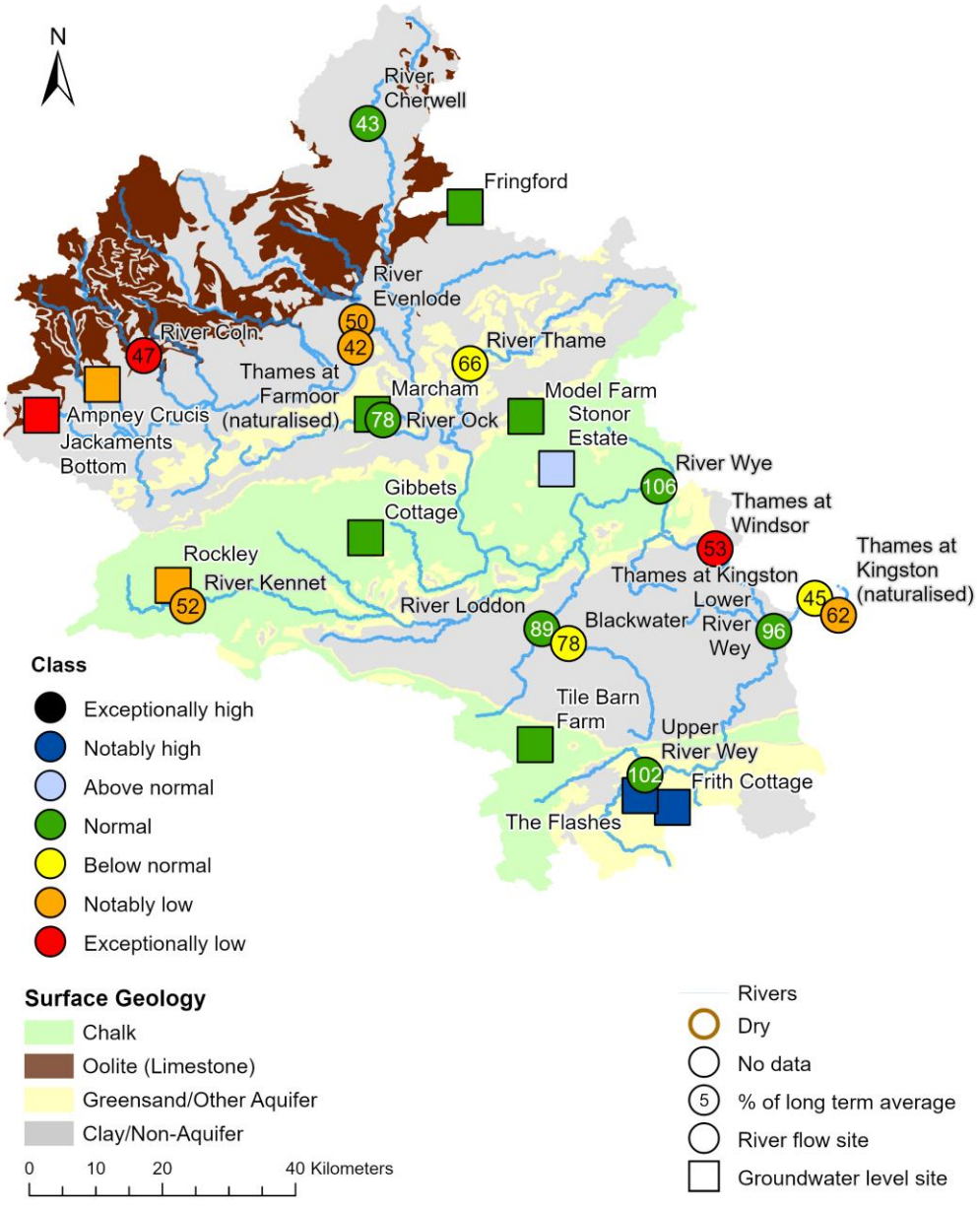
Figure 3.1: Soil moisture deficits for the week ending 31 August 2025. Shows the areal SMD estimate in millimetres.



4 River Flow and Groundwater Status

4.1 River flow and groundwater level map

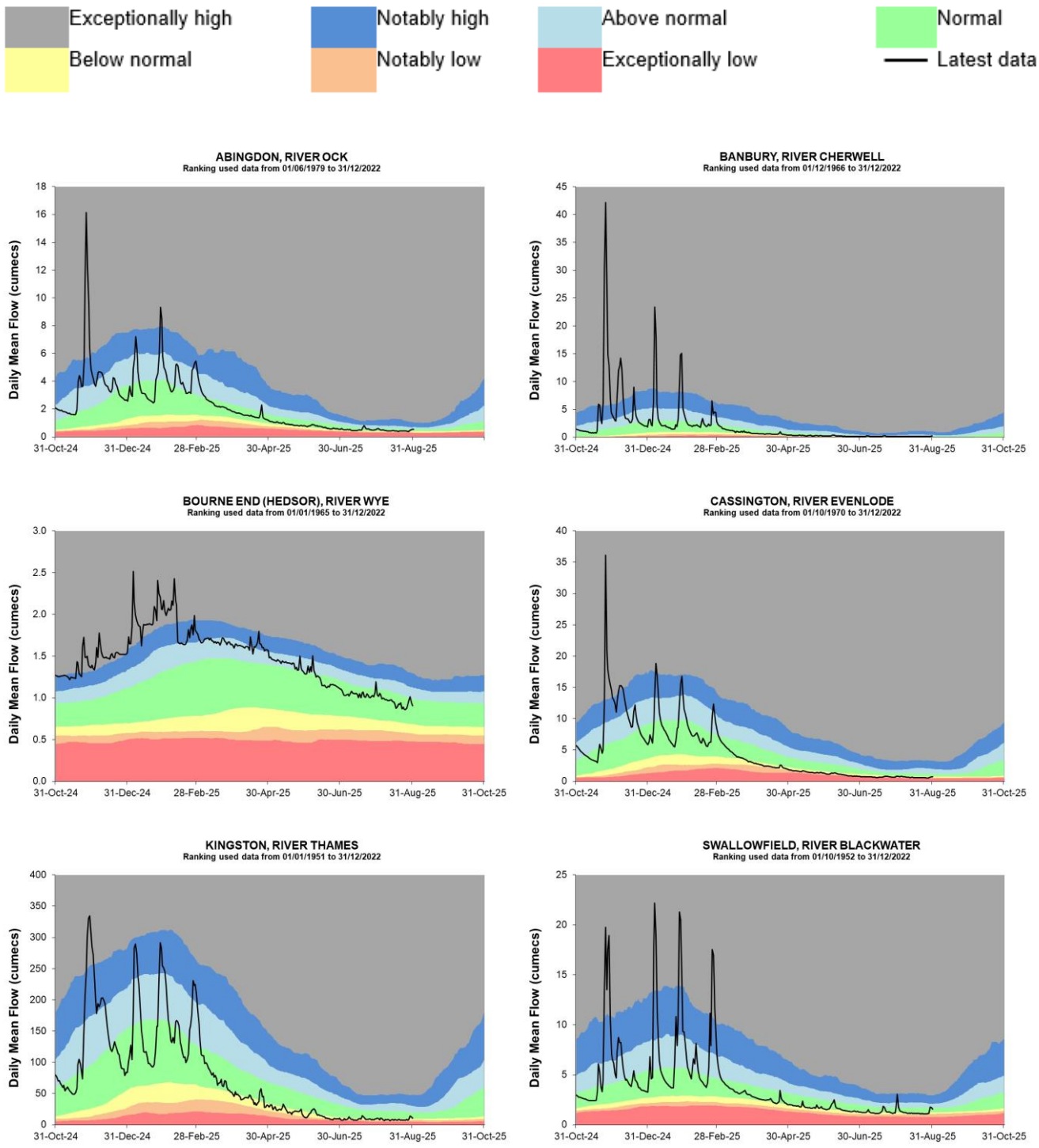
Figure 4.1: Monthly mean river flow for indicator sites and end of month groundwater levels for indicator sites for August 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic August means.



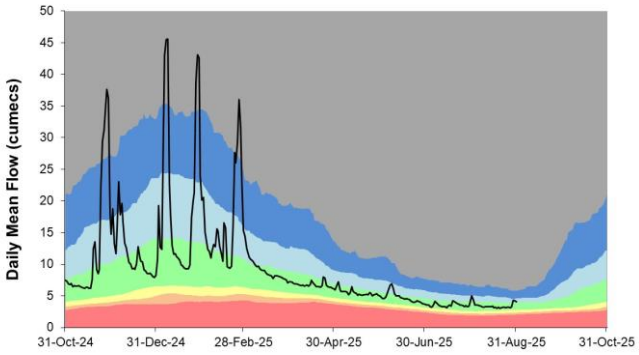
5 River flows

5.1 River flow charts

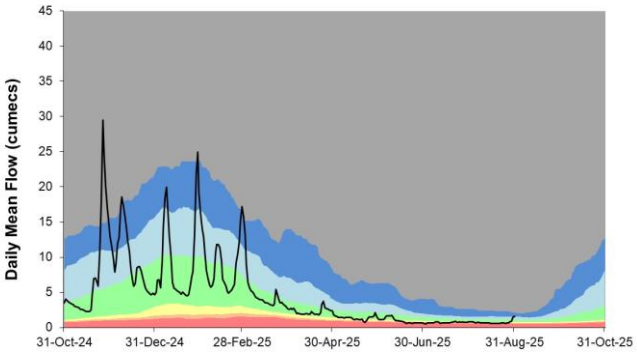
Figure 5.1: Daily mean river flows for indicator sites compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



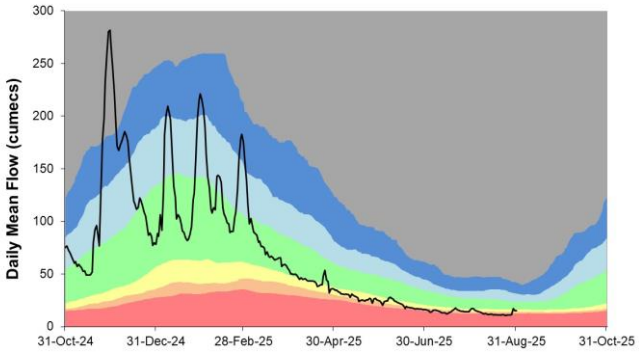
WEYBRIDGE, RIVER WEY
Ranking used data from 01/04/1979 to 31/12/2022



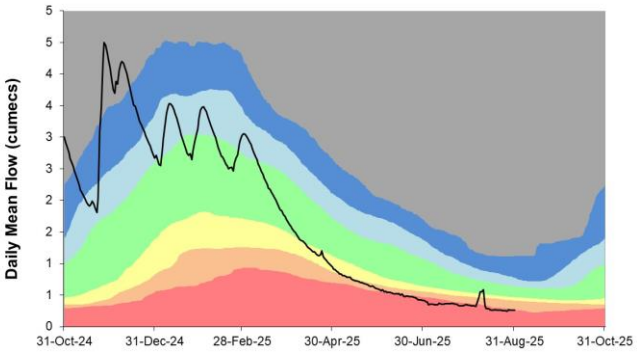
WHEATLEY, RIVER THAME
Ranking used data from 01/01/1990 to 31/12/2022



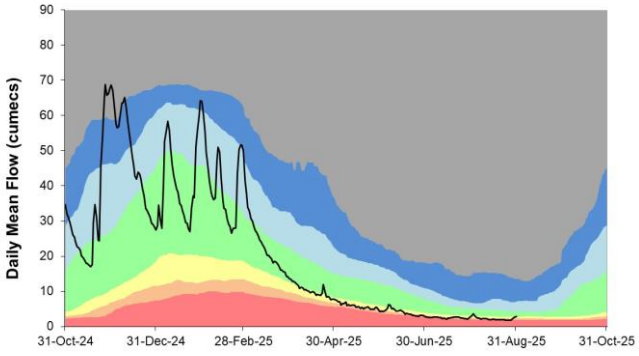
WINDSOR, RIVER THAMES
Ranking used data from 01/08/1979 to 31/12/2022



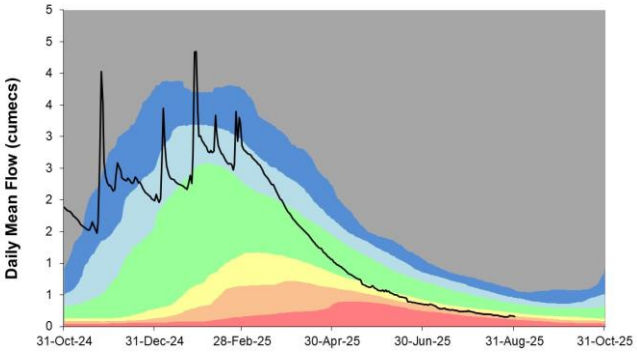
BIBURY, RIVER COLN
Ranking used data from 01/10/1963 to 31/12/2022

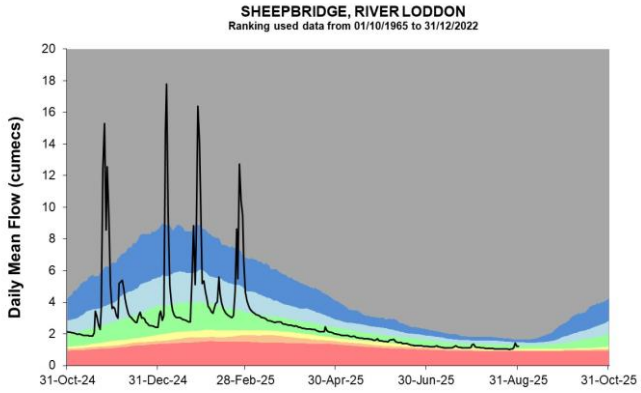


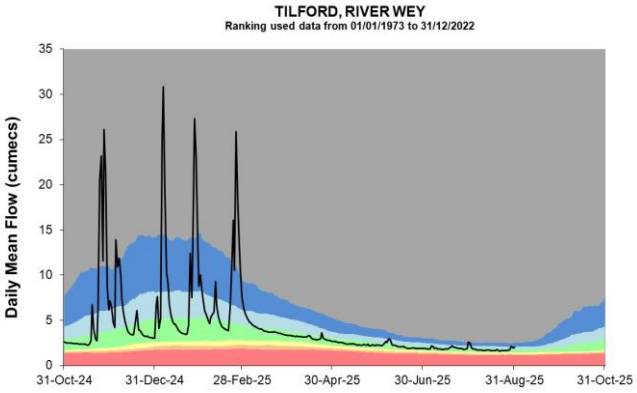
FARMOOR (NATURALISED), RIVER THAMES
Ranking used data from 01/10/1992 to 31/12/2022

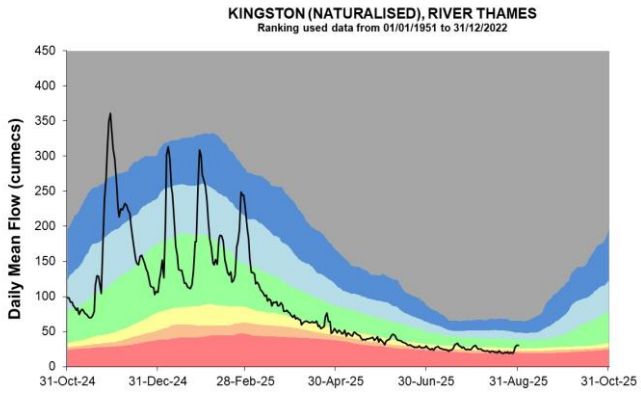


MARLBOROUGH, RIVER KENNET
Ranking used data from 01/02/1972 to 31/12/2022







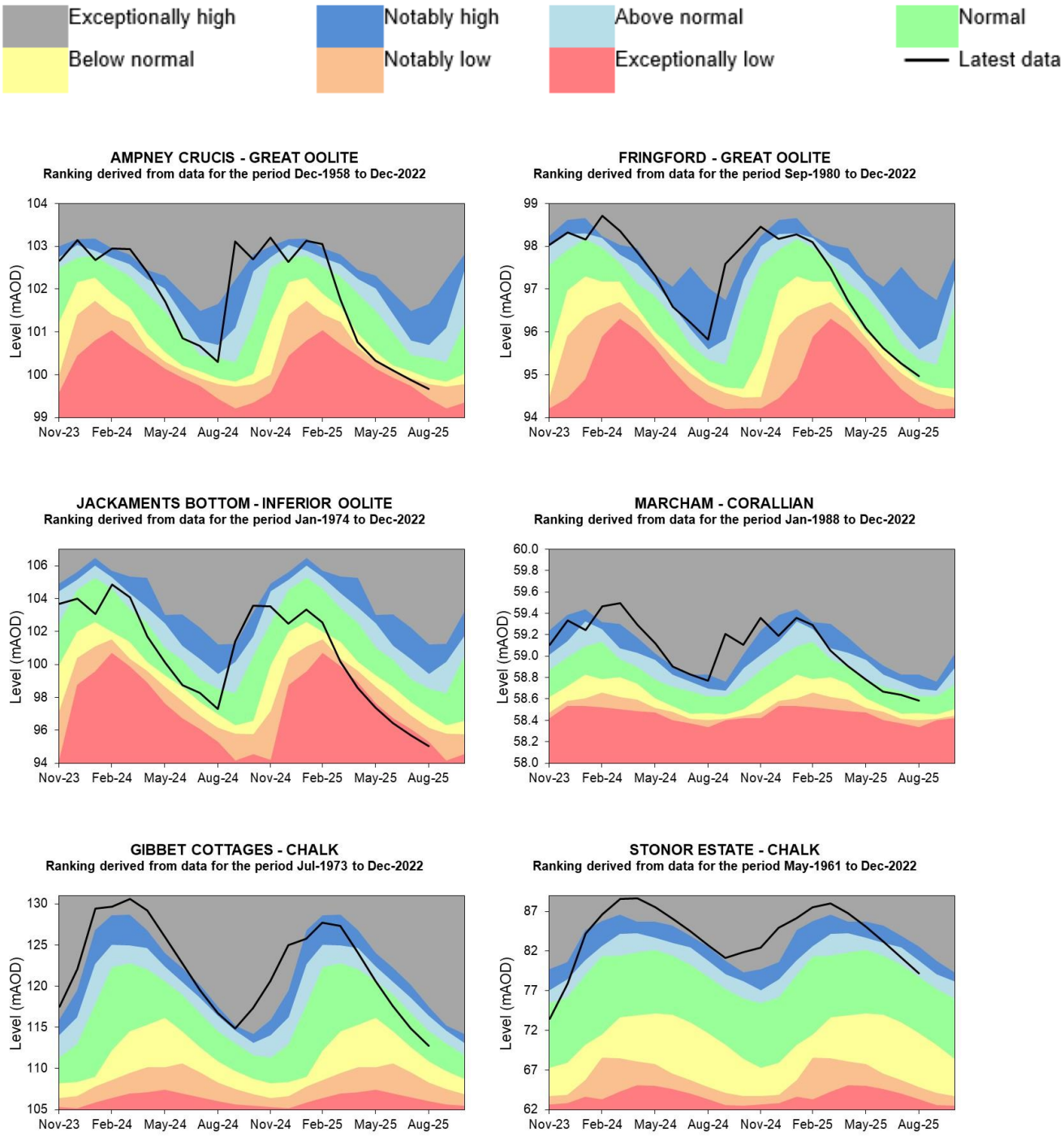


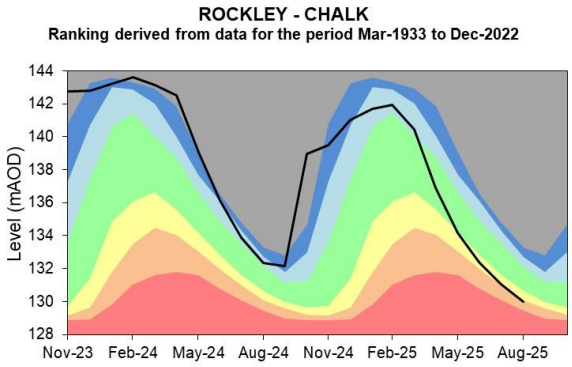
Source: Environment Agency.

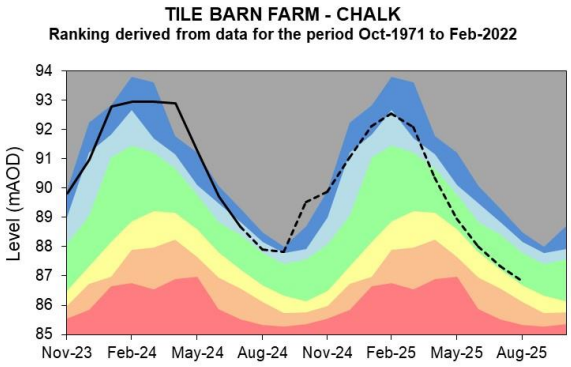
6 Groundwater levels

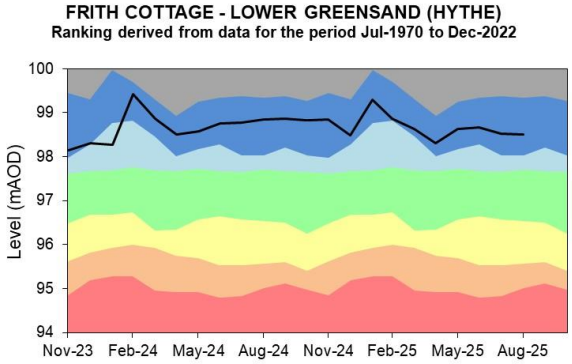
6.1 Groundwater level charts

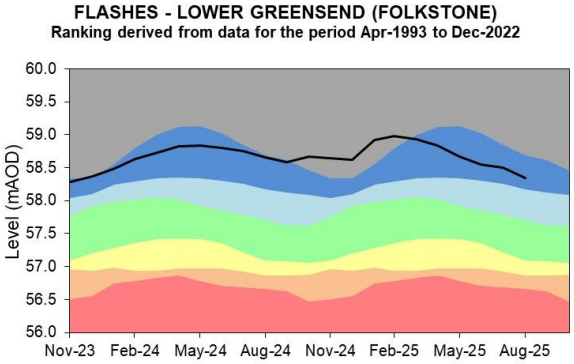
Figure 6.1: End of month groundwater levels for indicator sites, compared to an analysis of historic end of month levels, and long term maximum and minimum levels.

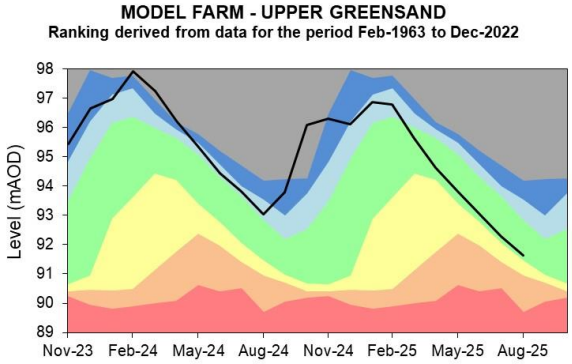










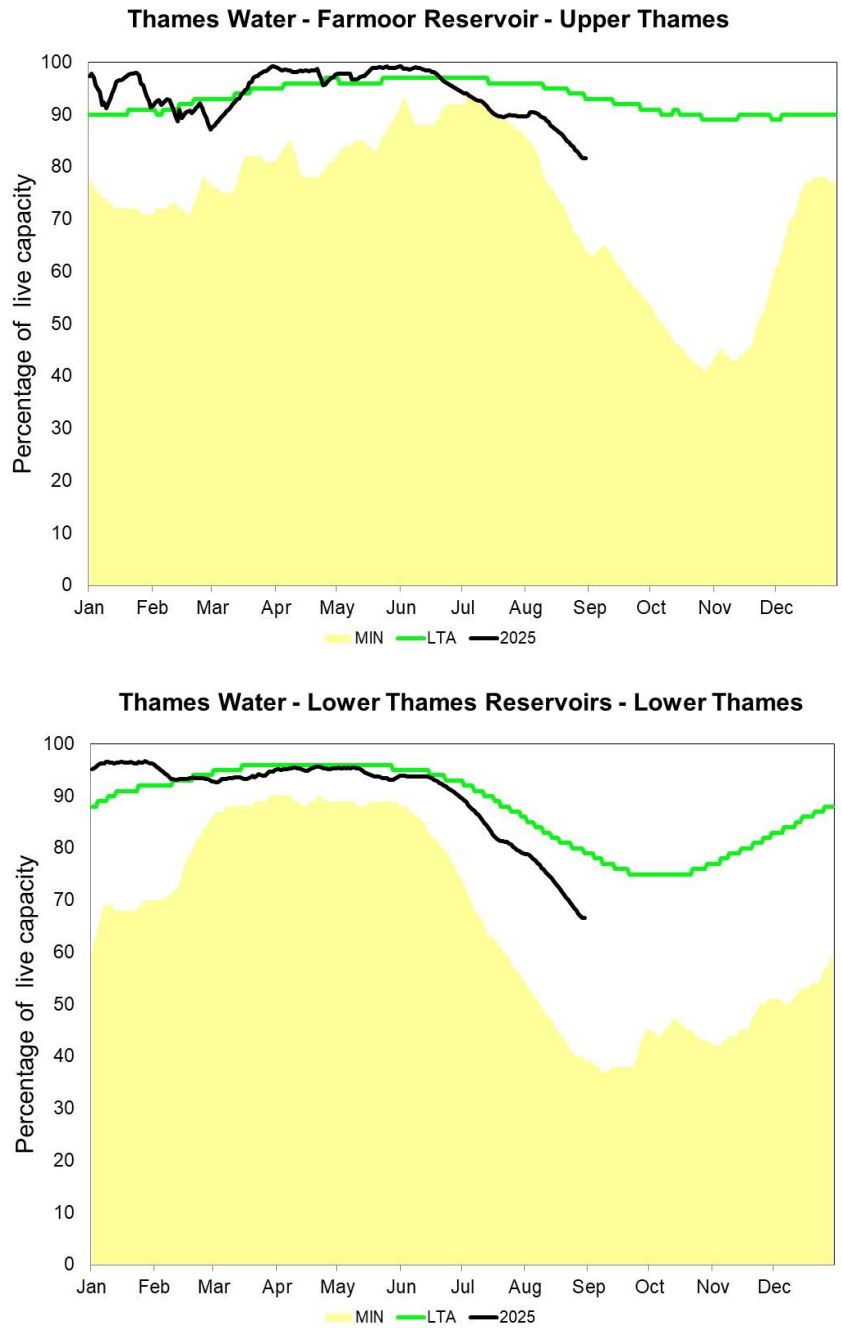


*Tile Barn Farm data has been estimated from two local sites since April 2022. A replacement is planned

Source: Environment Agency, 2025.

7 Reservoir stocks

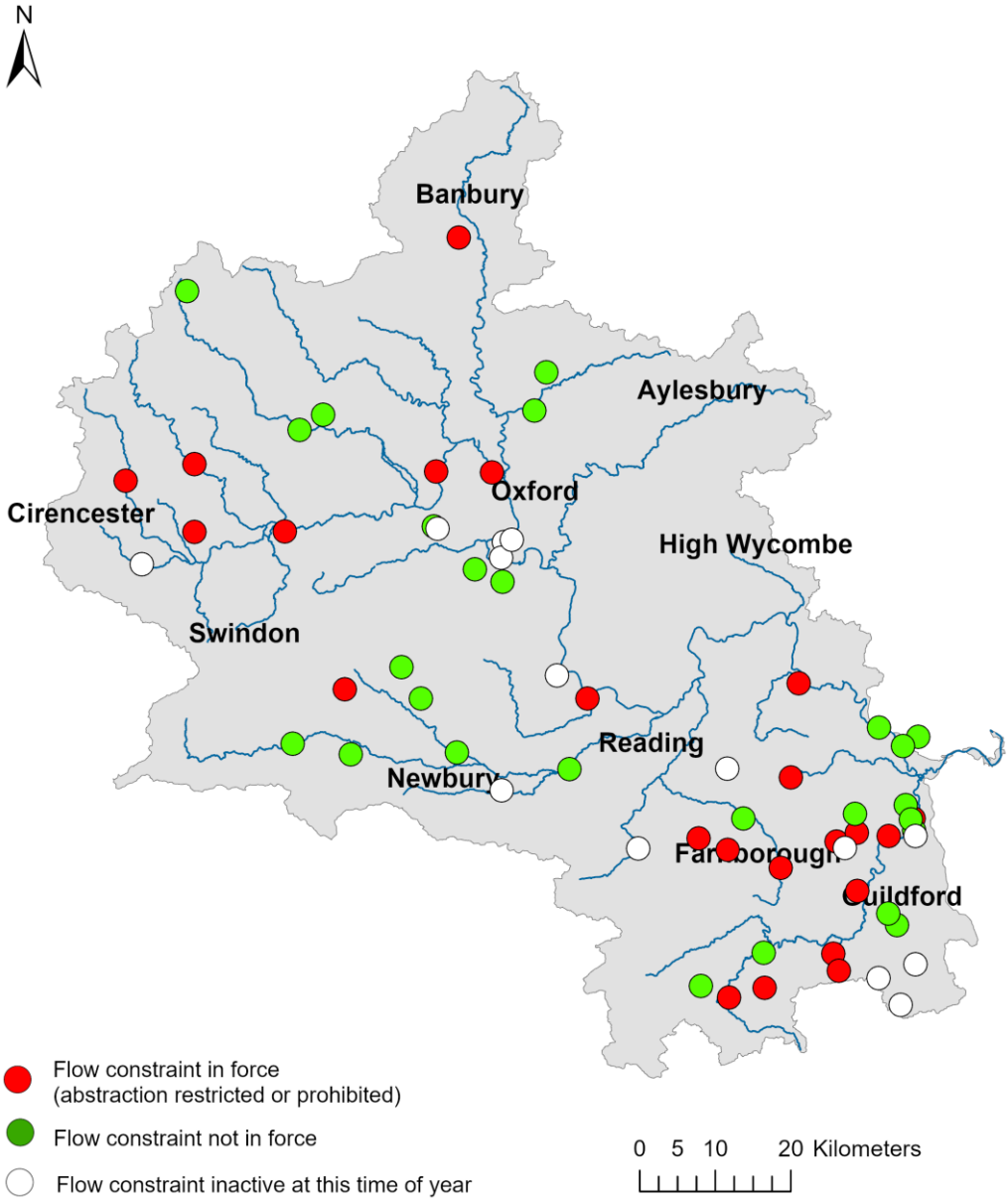
Figure 7.1: End of month regional reservoir stocks compared to minimum and average stocks.



(Source: water companies).

8 Flow Constraints

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



8.2 Summary of flow constraints

Week ending	03/08/25	10/08/25	17/08/25	24/08/25	31/08/25
	36	40	42	42	36

9 Summary of rainfall, effective rainfall and soil moisture deficit

9.1 Rainfall and effective rainfall

Area	Rainfall (mm) 31 day Total	Rainfall (mm) August LTA	Rainfall (mm) % LTA	Effective Rainfall (mm) 31 day total	Effective Rainfall (mm) August LTA	Effective Rainfall (mm) % LTA
Cotswolds - West	32	69	46	2	7	32
Cotswolds - East	27	66	40	2	7	22
Berkshire Downs	34	64	53	3	6	49
Chilterns - West	30	63	48	2	6	42
North Downs - Hampshire	32	67	48	3	7	41
Wey - Greensand	34	66	52	3	6	48
Upper Thames	28	62	46	0	0	0
Cherwell	23	68	34	0	0	0
Thame	30	59	50	0	0	0
Loddon	26	57	45	0	0	0
Lower Wey	26	59	44	0	0	0
Ock	27	57	47	0	0	0
Enborne	33	60	54	0	0	0
Cut	22	57	40	0	0	0
Thames Area	**29**	**62**	**46**	**1**	**3**	**39**

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

9.2 Soil moisture deficit

Area	SMD (mm) Day 31	SMD (mm) LTA
Cotswolds - West	146	63
Cotswolds - East	150	67
Berkshire Downs	171	100
Chilterns - West	168	104
North Downs - Hampshire	168	100
Wey - Greensand	164	101
Upper Thames	183	100
Cherwell	174	91
Thame	172	101
Loddon	178	108
Lower Wey	167	104
Ock	184	109
Enborne	172	101
Cut	180	115
Thames Area	**170**	**97**

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: 01/04/2025 to 31/08/2025						
Area	Rainfall (mm) Total	Rainfall (mm) LTA	Rainfall (mm) % LTA	Effective Rainfall (mm) Total	Effective Rainfall (mm) LTA	Effective Rainfall (mm) % LTA
Cotswolds - West	149	317	47	8	54	15
Cotswolds - East	144	293	49	8	45	18
Berkshire Downs	156	294	53	10	42	23
Chilterns - West	164	275	60	11	34	32
North Downs - Hampshire	171	302	57	12	48	25
Wey - Greensand	176	289	61	13	43	30
Upper Thames	135	278	48	0	14	0
Cherwell	148	288	51	0	19	0
Thame	148	261	57	0	11	0
Loddon	139	257	54	0	11	0
Lower Wey	158	254	62	0	10	0
Ock	135	258	52	0	10	0
Enborne	145	274	53	0	19	0
Cut	142	245	58	0	7	0
Thames Area	**151**	**277**	**54**	**4**	**26**	**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 5 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	Aug 2025 rainfall % of long term average 1991 to 2020	Aug 2025 band	Jun 2025 to August cumulative band	Mar 2025 to August cumulative band	Sep 2024 to August cumulative band
Berkshire Downs	53	Below Normal	Below normal	Exceptionally low	Normal
Chilterns West	48	Below Normal	Below normal	Exceptionally low	Normal
Cotswold East	40	Notably Low	Below normal	Exceptionally low	Normal
Cotswold West	46	Below Normal	Notably low	Exceptionally low	Normal
Cut	41	Notably Low	Notably low	Exceptionally low	Normal
Enborne	54	Below Normal	Below normal	Exceptionally low	Normal
Loddon	45	Notably Low	Below normal	Exceptionally low	Normal
Lower Wey	45	Below Normal	Below normal	Exceptionally low	Normal
North Downs - Hampshire	48	Notably Low	Below normal	Exceptionally low	Normal

Ock	47	Below Normal	Below normal	Exceptionally low	Normal
Thame	50	Below Normal	Below normal	Exceptionally low	Normal
Upper Cherwell	34	Notably Low	Notably low	Exceptionally low	Normal
Upper Thames	46	Below Normal	Notably low	Exceptionally low	Normal
Wey - Greensand	52	Below Normal	Below normal	Exceptionally low	Normal

11.2 River flows table

Site name	River	Catchment	Aug 2025 band	Jul 2025 band
Abingdon	River Ock	Ock	Normal	Normal
Banbury	River Cherwell	Cherwell Upper	Normal	Normal
Bibury	River Coln	Cotswolds West	Exceptionally low	Exceptionally low
Bourne End (hedsor)	River Wye	Wye Bucks	Normal	Normal
Cassington	River Evenlode	Evenlode	Notably low	Notably low
Farmoor (naturalised)	River Thames	Thames	Notably low	Notably low
Kingston	River Thames	Thames North Bank	Below normal	Below normal
Marlborough	River Kennet	Kennet	Notably low	Notably low
Sheepbridge	River Loddon	Loddon	Normal	Below normal
Swallowfield	River Blackwater	Loddon	Below normal	Below normal
Tilford	River Wey	Wey Addleston Bourne	Normal	Normal
Weybridge	River Wey	Wey Addleston Bourne	Normal	Normal
Wheatley	River Thame	Thame	Below normal	Notably low

Windsor	River Thames	Thames	Exceptionally low	Exceptionally low
Kingston (naturalised)	River Thames	Thames North Bank	Notably low	Notably low

11.3 Groundwater table

Site name	Aquifer	End of Aug 2025 band	End of Jul 2025 band
Ampney Crucis Obh	Burford Oolitic Limestone (great)	Notably low	Notably low
Frith Cottage	Godalming Lower Greensand	Notably high	Notably high
Gibbet Cottages Obh	Berkshire Downs Chalk	Normal	Normal
Jackaments Bottom Obh	Burford Oolitic Limestone (inferior)	Exceptionally low	Exceptionally low
Marcham Obh	Shrivenham Corallian	Normal	Normal
Model Farm	Chiltern Upper Greensand	Normal	Normal
Rockley Obh	Berkshire Downs Chalk	Notably low	Below normal
Stonor Estate	South-west Chilterns Chalk	Above normal	Above normal
The Flashes Obh	Godalming Lower Greensand	Notably high	Notably high
Tile Barn Farm	Basingstoke Chalk	Normal	Normal

Fringford P.s.	Upper Bedford Ouse Oolitic Limestone (great)	Normal	Normal