Monthly water situation report:

South-east England

1 Summary - May 2026

May was the third consecutive month when below average rainfall was recorded across south-east England when just 50% of the long term average (LTA) rainfall fell. The south-east recorded the driest two months for April and May since 2011.

The lack of rainfall and record breaking high temperatures during the last week of May caused soil moisture deficits (SMDs) to rise steadily during the month. The SMDs ended more than a third higher than the end of month LTA, and similar to the SMDs in May 2025. The combination of low rainfall and very high SMDs resulted in little or no recharge across the south-east.

River flows fell throughout the month and only a handful of sites showed any notable response to the heavy rainfall on 18 May. Flows ranged from exceptionally low at Brockenhurst (Solent and South Downs, SSD) to above normal at Panshanger (Hertfordshire and North London, HNL). No fluvial flood alerts were issued in May. Groundwater levels fell at all key indicator sites across the south-east and ended the month as normal for May at most sites. The last remaining groundwater food alert in THM was removed during May.

1.1 Rainfall

May was the third consecutive month when below average rainfall was recorded across the south-east of England. Rainfall ranged from normal on the south coast and Isle of Wight to below normal across SSD and Kent and South London (KSL) to notably low for much of Thames (THM) and HNL. The Roding areal unit in the far east of HNL had exceptionally low rainfall for May.

There was 50% of the LTA rainfall recorded across the south-east. Only 30% LTA was recorded in HNL which was the ‘driest’ area during May. Around a quarter of the monthly total fell on 18 May across the south-east and much of this rainfall fell along the south coast in SSD, yet SSD still only recorded 63% of the monthly LTA. The highest daily total was in SSD, on 18 May at Plumpton where 23.1mm was recorded. All of the top 5 highest totals for the month across the south-east were recorded in SSD.

The south-east recorded the driest two months for April and May since 2011, THM the third driest May since 1896 and HNL the driest two months ending in May on record.

1.2 Soil moisture deficit and recharge

The lack of rainfall and then the very hot temperatures during the last week of May caused SMDs to rise steadily during the month with a short and small dip in most areal units during the wet weather around 18 May. By the end of the month SMDs were more than a third higher than the end of May LTA and similar to the SMDs at the end of May 2025. The combination of low rainfall and very high SMDs resulted in little or no recharge across the south-east for the third month running.

1.3 River flows

River flows fell throughout the month and only a handful of sites showed any notable response to the heavy rainfall on 18 May. Flows ranged from exceptionally low at the Lymington River at Brockenhurst (SSD) to above normal at the Mimram at Panshanger (HNL). Lymington River had the fourth lowest monthly mean flows for May. Sites where flows were lower were generally draining impermeable catchments or where the local groundwater levels had fallen sharply, such as in the Cotswolds. The sites fed by groundwater in HNL, SSD and the Darent in KSL were normal for the time of year. Unsurprisingly, no fluvial flood alerts were issued in May.

1.4 Groundwater levels

Groundwater levels fell at all key indicator sites across the south-east and ended the month as normal for May at most sites. There were a few exceptions including West Meon Hut (SSD) and Little Bucket (KSL) which ended the month at above normal levels. Jackaments (THM) and Carisbrooke Castle (SSD) fell to notably low levels. Both these sites respond quickly to wet or dry weather and during May fell sharply to be lower than May last year. The last remaining groundwater flood alert in THM was removed during May.

1.5 Reservoir stocks

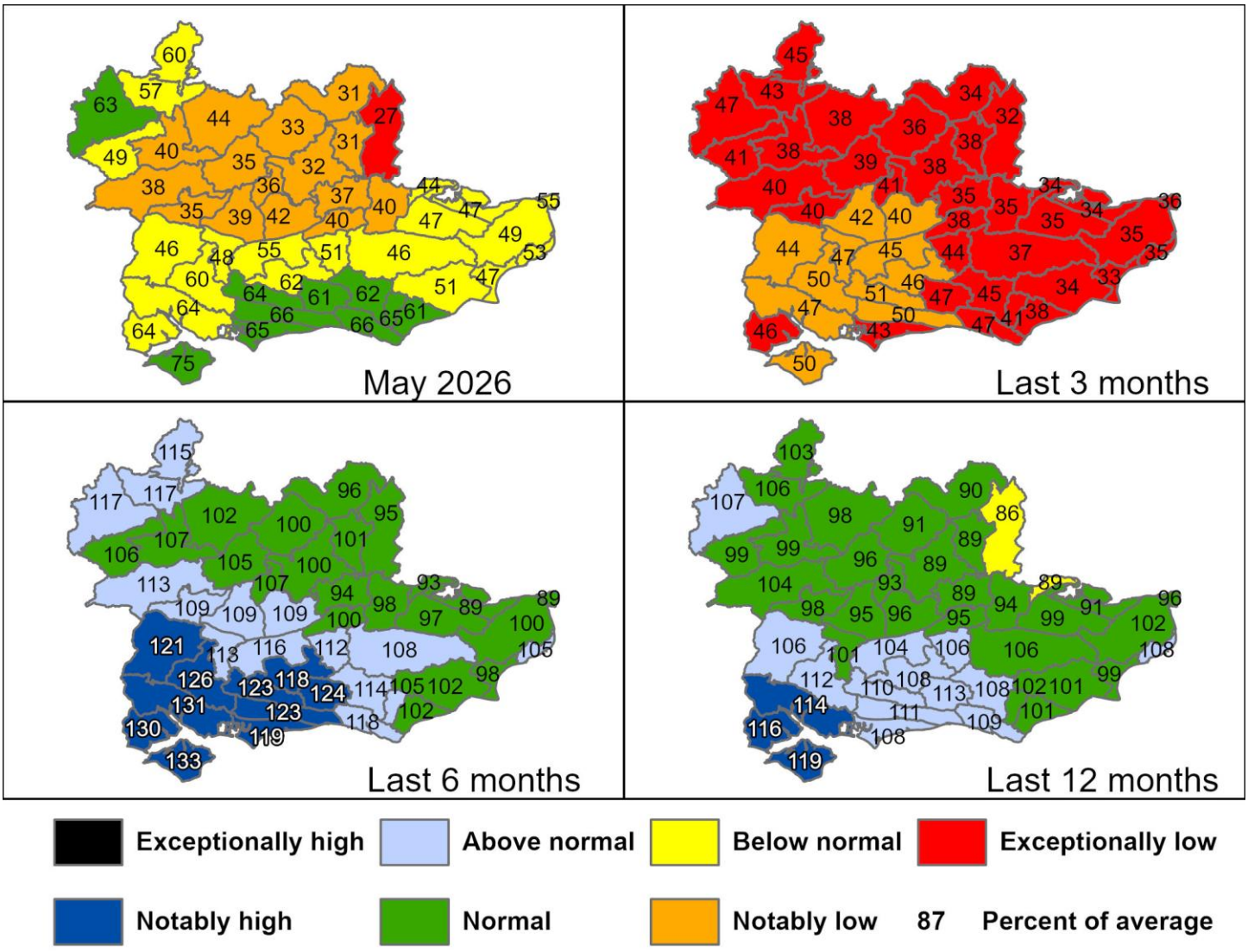
Reservoir stocks fell during May at all reservoirs with just the exception of Farmoor (THM) which remained steady throughout the month and above the LTA for May. In addition to Farmoor, stocks at Bough Beech, Weir Wood, Bewl (all KSL) and Lower Lee (HNL) were all above average. At Lower Thames (THM), Ardingly, Arlington (both SSD), Darwell and Powdermill (both KSL) reservoirs, were all below average for May.

Author: groundwaterhydrology@environment-agency.gov.uk

2 Maps

2.1 Rainfall map

Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 May 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. The numbers refer to percentage of the 1991-2020 long term average.

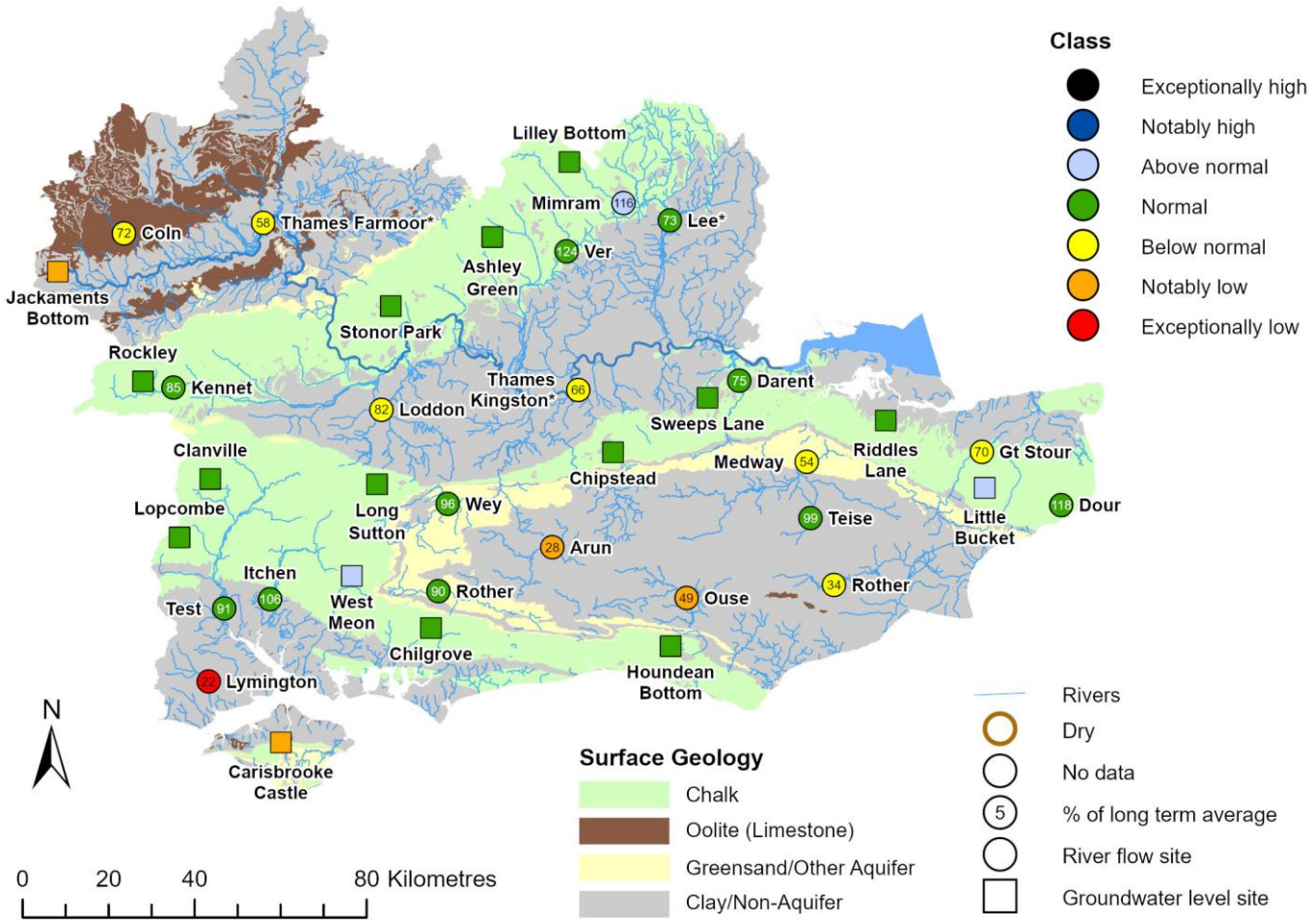


Rainfall data for Oct 2023 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright 2026 AC0000807064). Rainfall data prior to Oct 2023 extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges. (Source: Met Office. Crown copyright, 2026).

2.2 River flows and groundwater levels map

Figure 2.2: Monthly mean river flow for indicator sites for May 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic May monthly means Table available in the appendices with detailed information. Groundwater levels for indicator sites at the end of May 2026, classed relative to an analysis of respective historic May levels. Table available in the appendices with detailed information.

Flows at gauging stations in the Medway catchment (KSL) might be affected by upstream reservoir releases.



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

3 Rainfall, effective rainfall and soil moisture deficit tables

3.1 Rainfall, effective rainfall and soil moisture deficit table

Figure 3.1: This is a second estimate of areal rainfall, effective rainfall (percolation or runoff) and SMDs for a selection of the hydrological areas across the South-east of England. There may be significant variation within each area which must be considered when interpreting these data. When additional meteorological data is available estimates are revised which will affect the period totals in Figure 3.2.

Number	Hydrological Area	Rainfall (mm) 31 day Total	May % LTA	Effective Rainfall (mm) 31 day total	May % LTA	SMD (mm) Day 31	End May LTA
6010TH	Cotswolds - West (A)	42	63%	3	32%	56	30
6070TH	Berkshire Downs (G)	22	38%	1	9%	92	49
6130TH	Chilterns - West (M)	19	35%	1	13%	95	52
6162TH	North Downs - Hampshire (P)	27	48%	1	16%	91	51
6190TH	Wey - Greensand (S)	30	55%	2	22%	91	52
	Thames Average	25	47%	1	18%	89	49
	Thames Catchment Average	25	46%	1	15%	90	49
6140TH	Chilterns - East - Colne (N)	18	33%	0	7%	96	53
6600TH	Lee Chalk	15	30%	0	3%	99	68
6507TH	North London	15	32%	0	0%	100	61
6509TH	Roding	12	27%	0	0%	100	62
	Herts and North London	15	30%	0	4%	99	61
6230TH	North Downs - South London (W)	22	40%	1	12%	94	50
6706So	Darent	20	39%	1	12%	97	56

6707So	North Kent Chalk	24	46%	1	14%	95	53
6708So	Stour	25	49%	1	15%	95	54
6809So	Medway	24	46%	0	0%	92	49
	Kent & South London Average	23	46%	0	10%	99	64
6701So	Test Chalk	25	46%	1	14%	92	50
6702So	East Hampshire Chalk	32	60%	2	20%	89	50
6703So	West Sussex Chalk	36	66%	2	26%	88	49
6804So	Arun	33	62%	0	0%	90	49
6805So	Adur	33	61%	0	0%	89	48
	Solent & South Downs Average	32	63%	1	16%	91	51
	South East Average	26	50%	1	14%	93	55

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

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

3.2 Seasonal summary table of rainfall and effective rainfall

Figure 3.2 This is a seasonal estimate of areal rainfall and effective rainfall (percolation or runoff) for a selection of the hydrological areas across the South-east of England, expressed as totals and as a percentage of the LTA. There may be significant variation within each area which must be considered when interpreting these data. When additional meteorological data is available estimates are revised which will affect the period totals.

Summer period 01/04/2026 to 31/05/2026

Number	Hydrological Area	Seasonal Rainfall (mm) Total	Seasonal Rainfall as % LTA	Seasonal Effective Rainfall (mm) Total	Seasonal Effective Rainfall as % LTA
6010TH	Cotswolds - West (A)	56	45%	4	13%
6070TH	Berkshire Downs (G)	35	30%	1	3%
6130TH	Chilterns - West (M)	29	27%	1	4%
6162TH	North Downs - Hampshire (P)	40	34%	1	5%
6190TH	Wey - Greensand (S)	39	34%	2	6%
	Thames Average	36	33%	1	5%
	Thames Catchment Average	35	32%	1	4%
6140TH	Chilterns - East - Colne (N)	24	23%	0	2%
6600TH	Lee Chalk	18	19%	0	2%
6507TH	North London	21	22%	0	0%
6509TH	Roding	16	18%	0	0%
	Herts and North London	19	21%	0	1%
6230TH	North Downs - South London (W)	27	24%	1	4%

6706So	Darent	23	23%	1	4%
6707So	North Kent Chalk	29	29%	1	7%
6708So	Stour	31	32%	1	8%
6809So	Medway	29	28%	0	0%
	Kent & South London Average	27	29%	0	4%
6701So	Test Chalk	38	33%	1	4%
6702So	East Hampshire Chalk	48	41%	2	6%
6703So	West Sussex Chalk	47	42%	3	9%
6804So	Arun	40	37%	0	0%
6805So	Adur	40	37%	0	0%
	Solent & South Downs Average	42	39%	1	5%
	South East Average	34	33%	1	4%

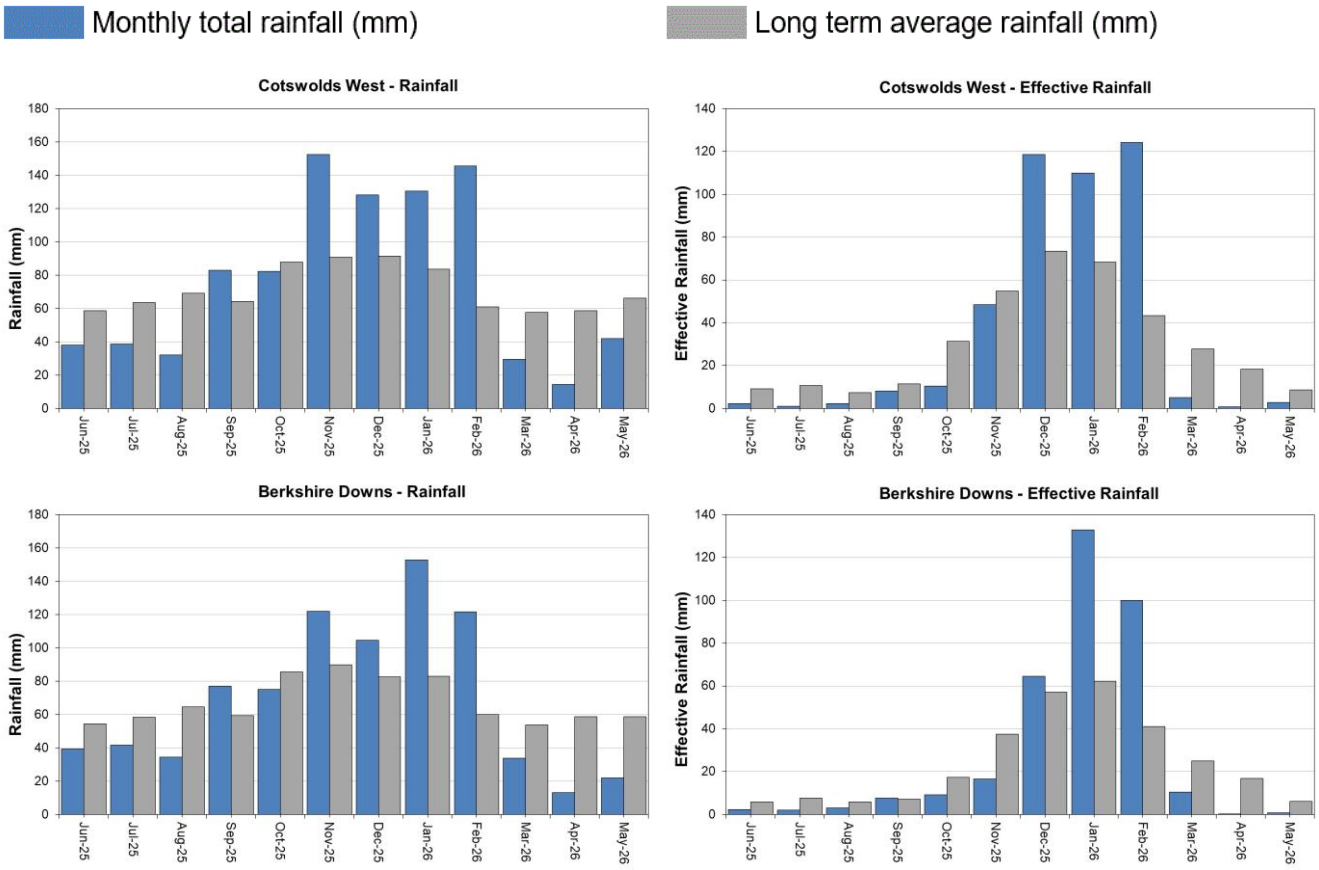
HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

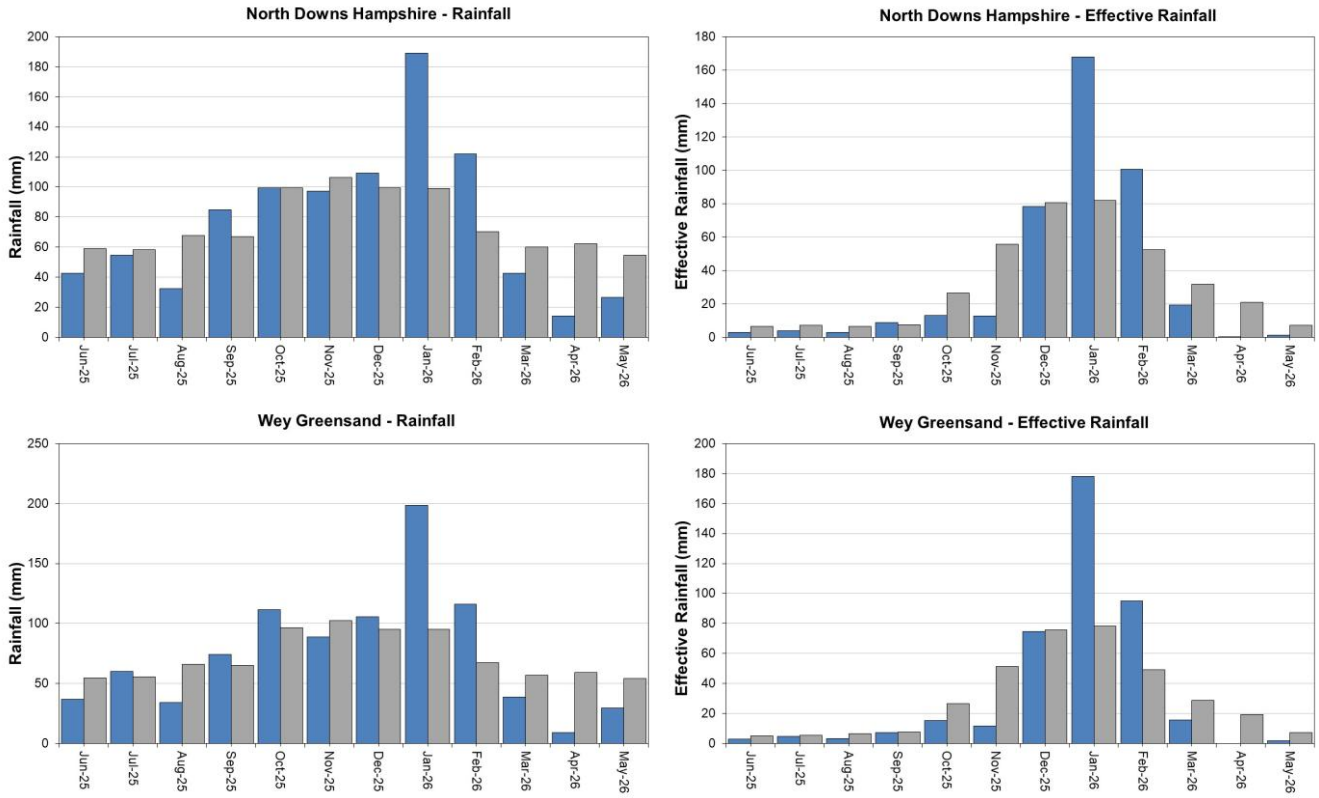
EA effective rainfall data (Source EA Soil Moisture Model 2026.)

4 Thames

4.1 Thames Rainfall and effective rainfall charts

Figure 4.1: Monthly rainfall and effective rainfall totals for the past 24 months compared to the 1991 to 2020 long term average for a selection of areal units.



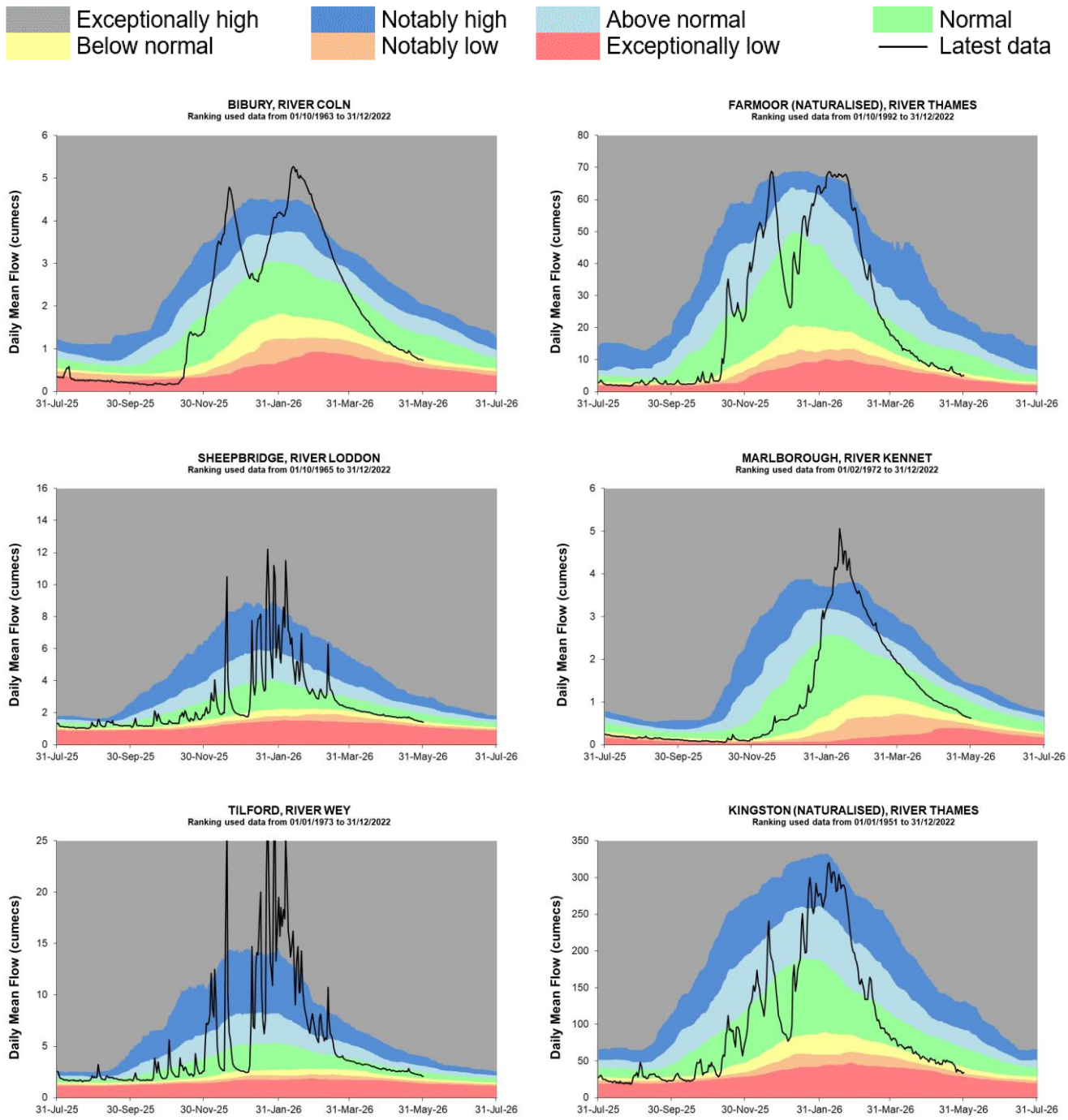


HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

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

4.2 Thames River flow charts

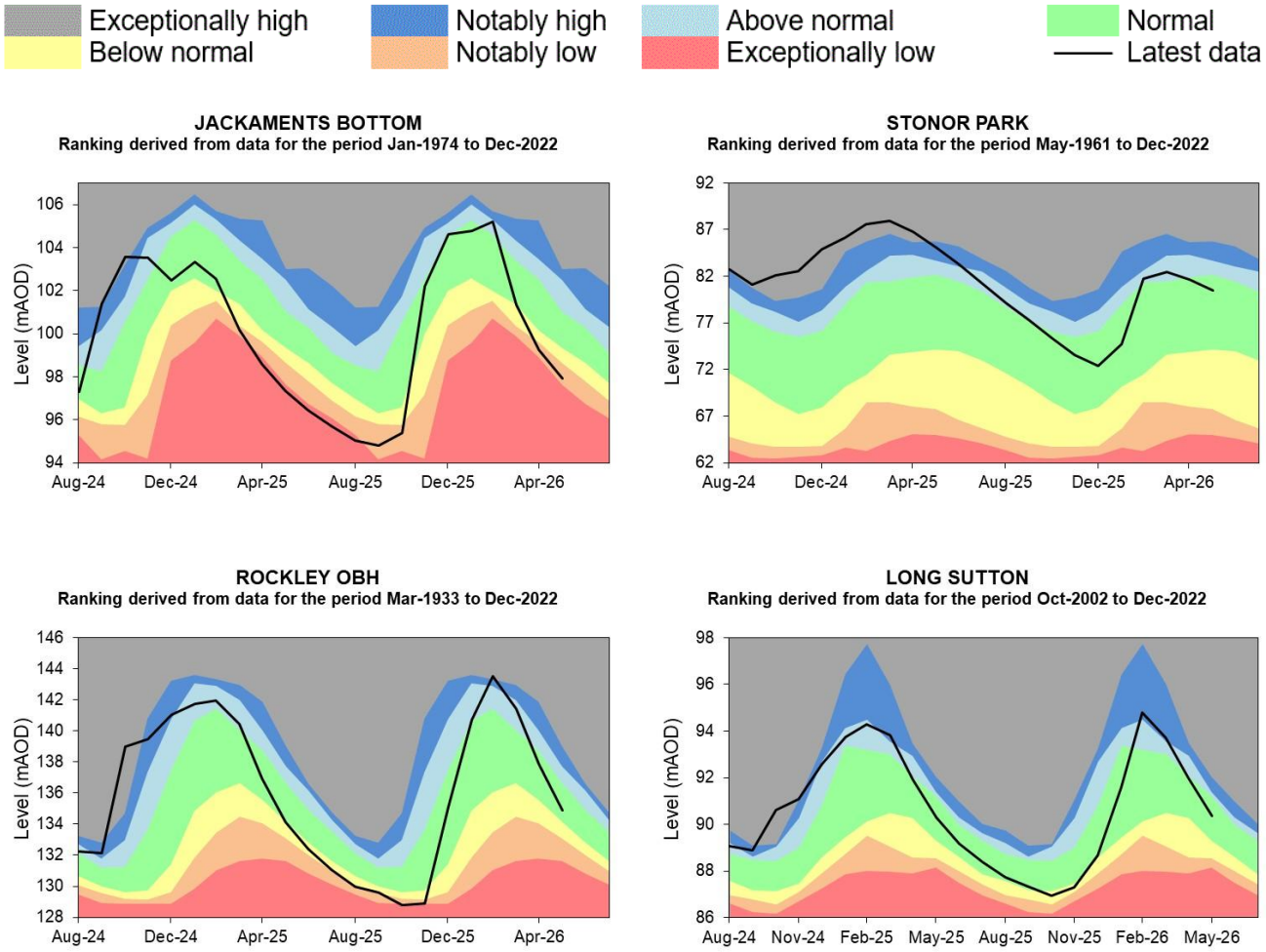
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency. 2026

4.3 Thames Groundwater level charts

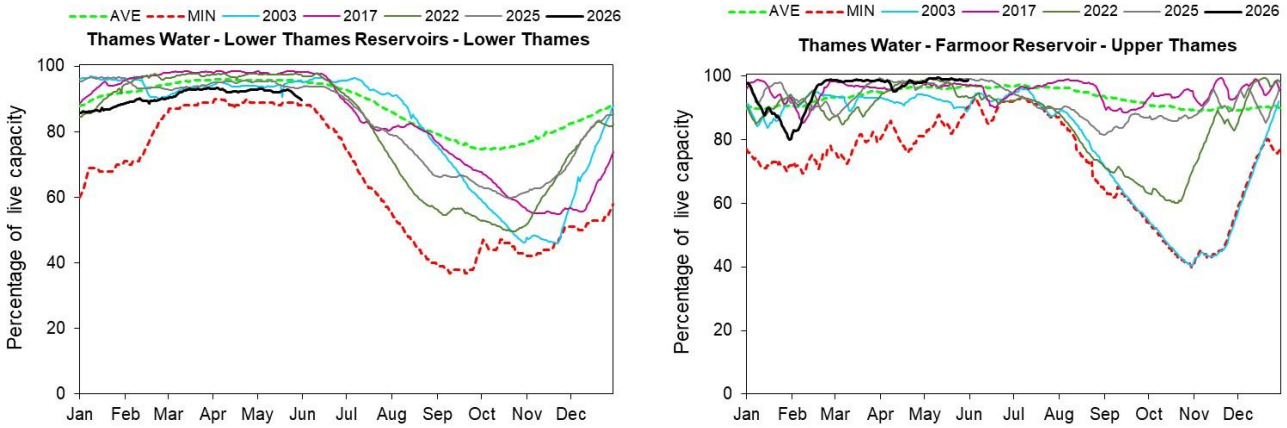
Figure 4.3: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



Source: Environment Agency, 2026.

4.4 Thames Reservoir stocks

Figure 4.4: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.

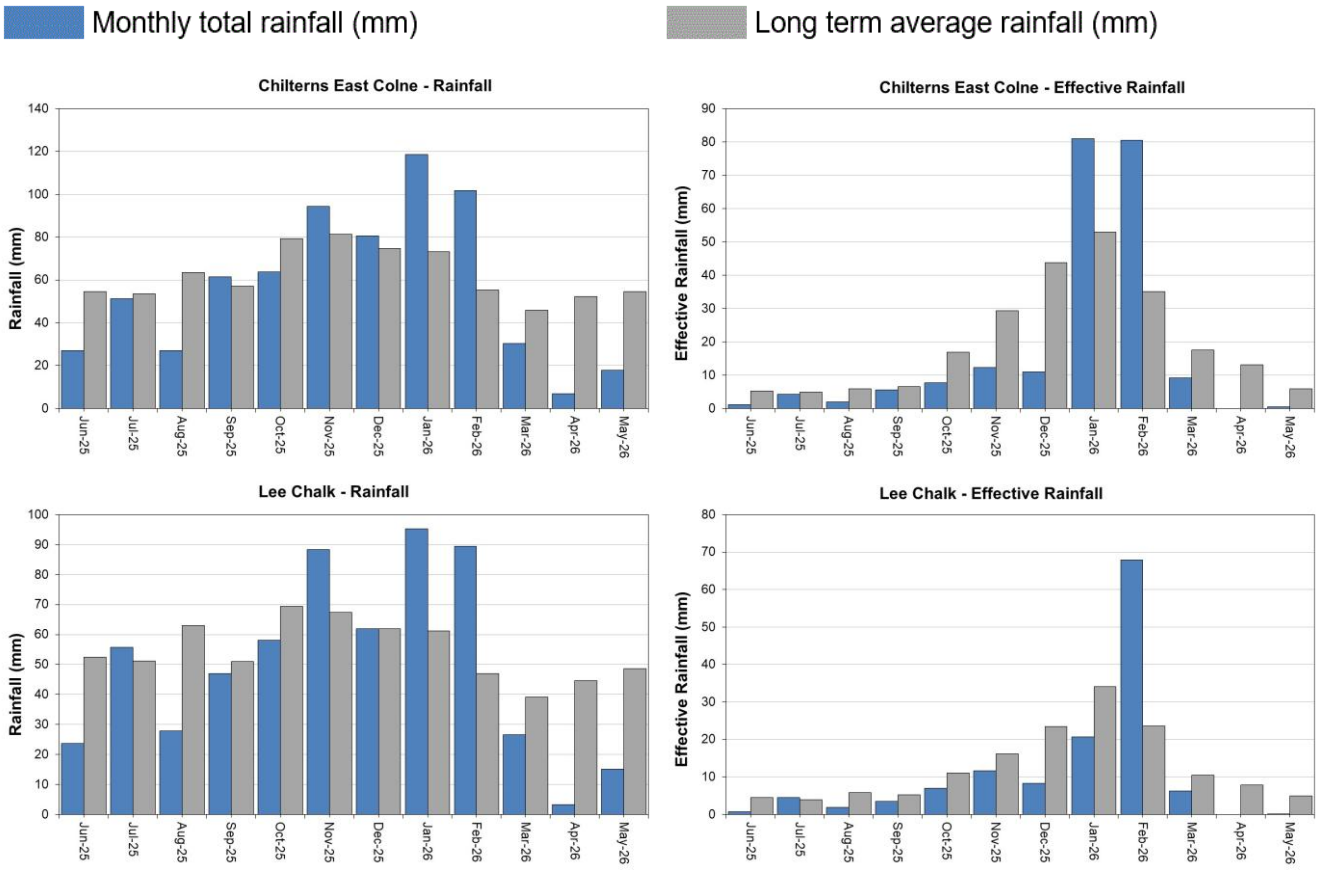


(Source: water companies).

5 Hertfordshire and North London (HNL)

5.1 HNL Rainfall and Effective rainfall charts

Figure 5.1: Monthly rainfall and effective rainfall totals for the past 24 months compared to the 1991 to 2020 long term average for a selection of areal units.

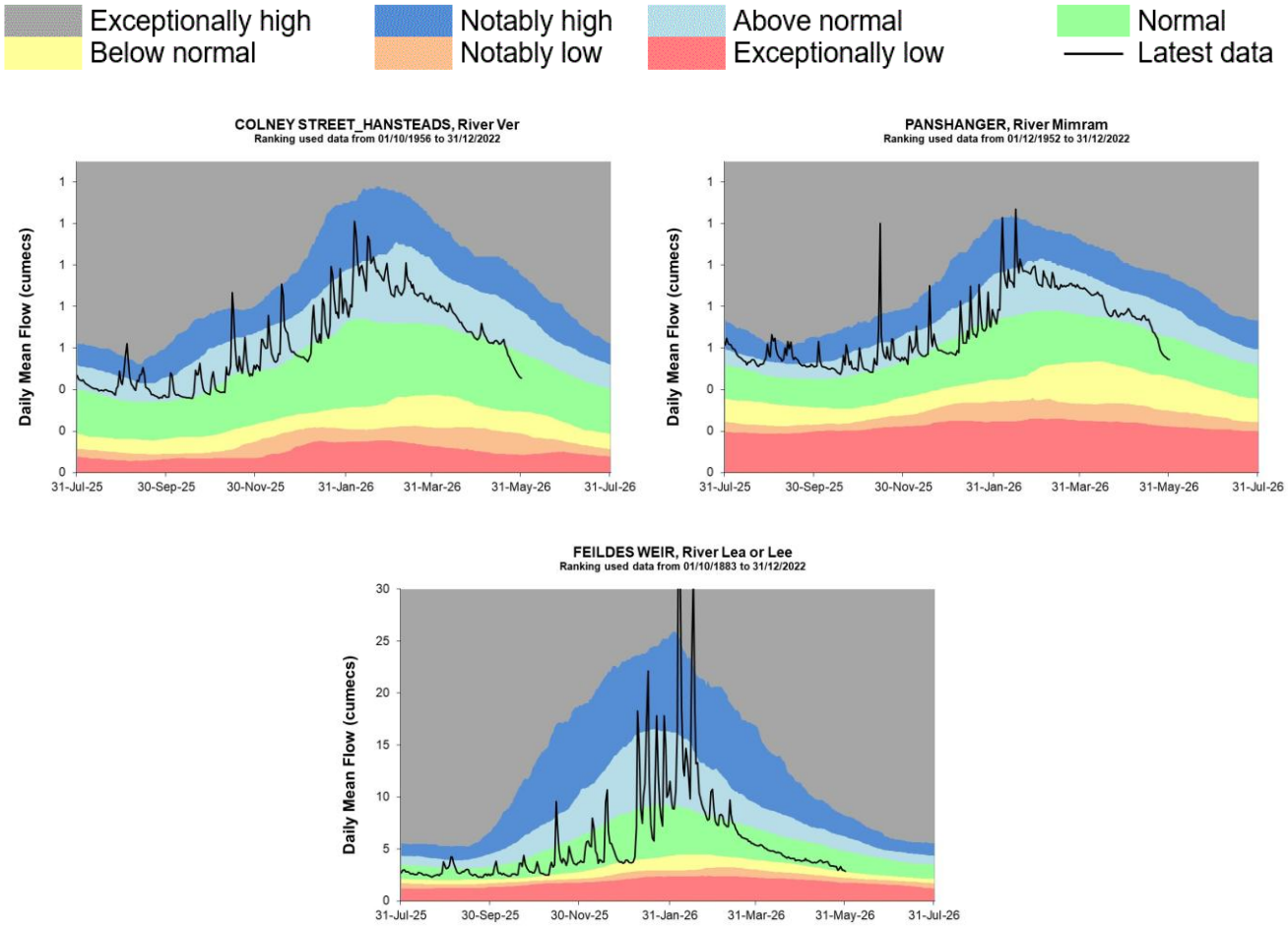


HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

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

5.2 HNL River flow charts

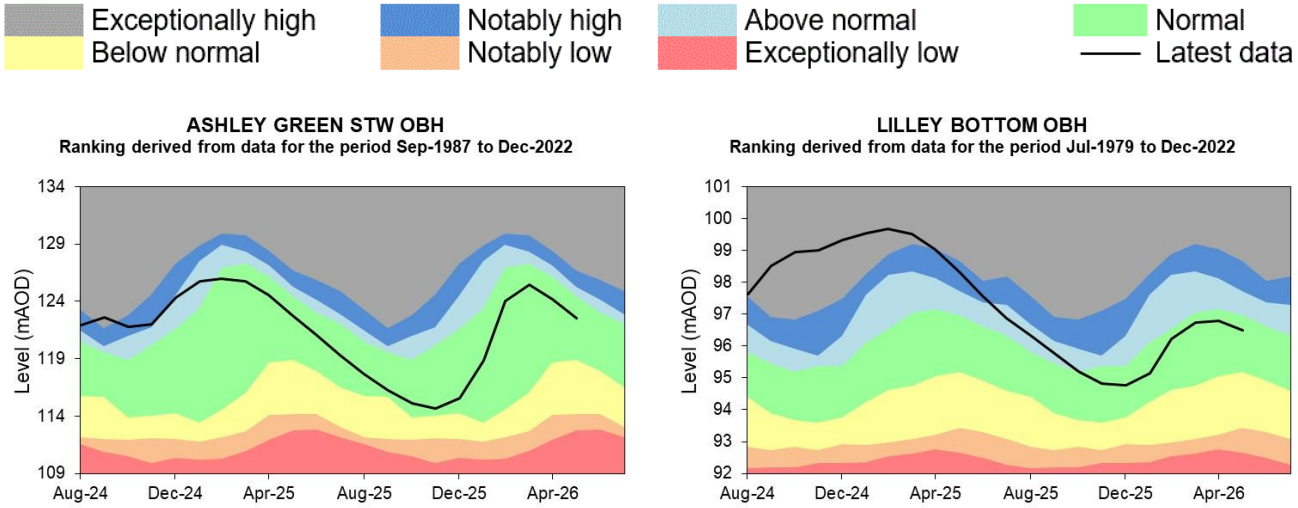
Figure 5.2 Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency. 2026

5.3 HNL Groundwater level charts

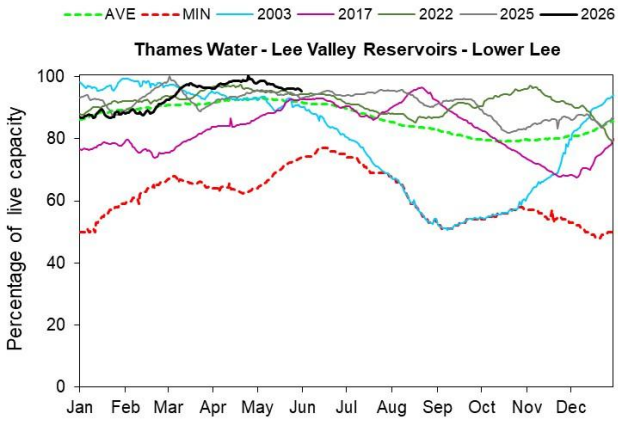
Figure 5.3: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



Source: Environment Agency, 2026.

5.4 HNL Reservoir stocks

Figure 5.4: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.

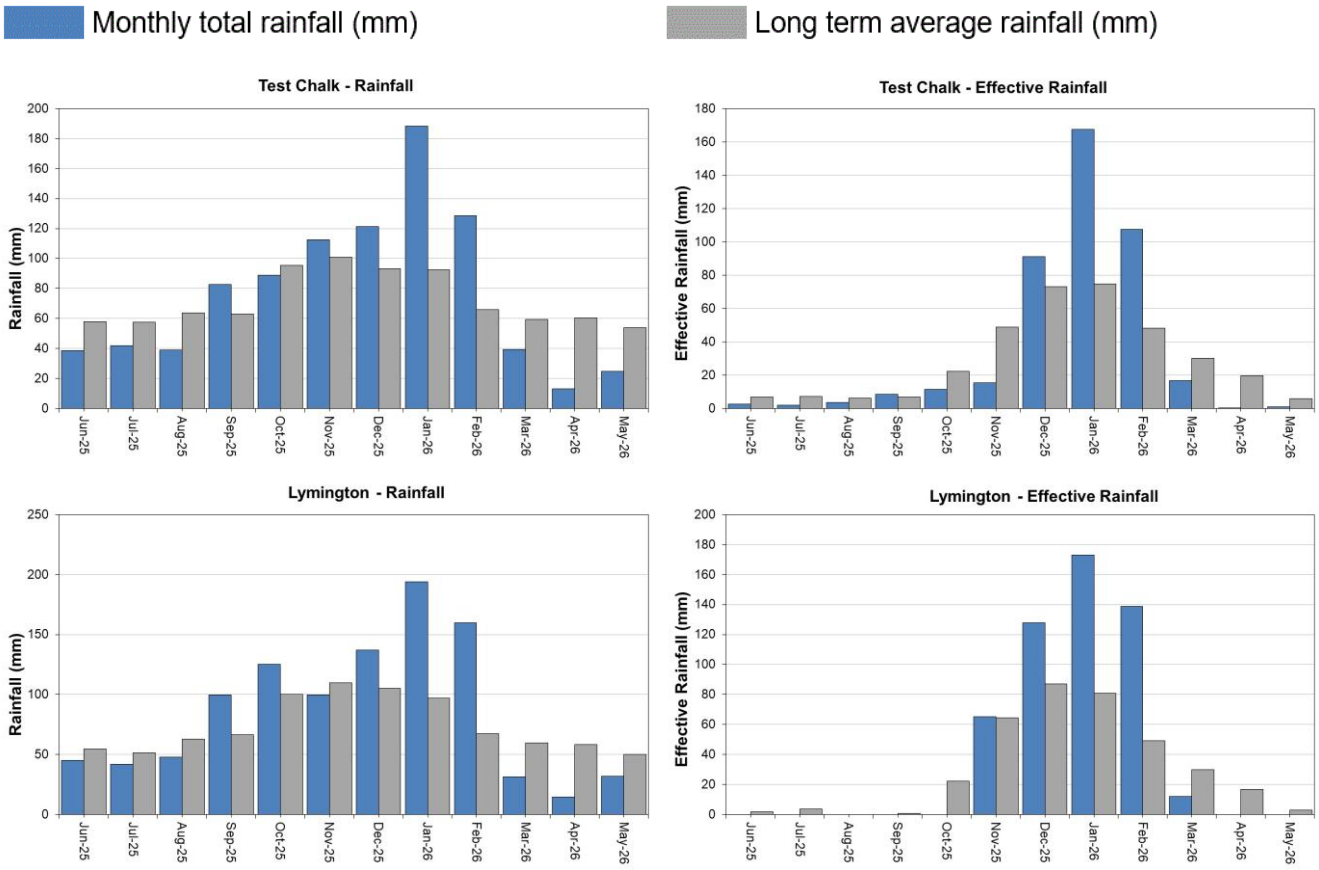


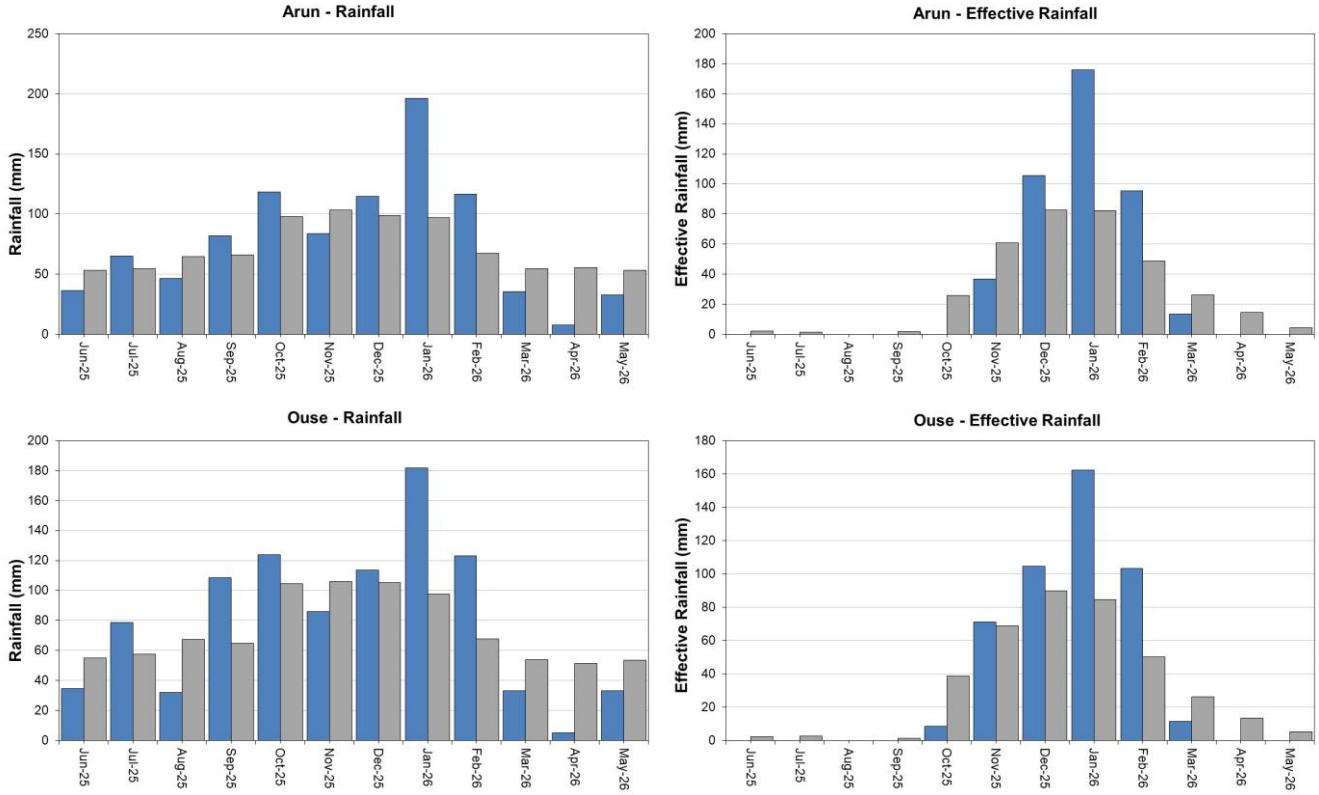
(Source: water companies).

6 Solent and South Downs (SSD)

6.1 SSD Rainfall and Effective Rainfall charts

Figure 6.1: Monthly rainfall and effective rainfall totals for the past 24 months as a percentage of the 1991 to 2020 long term average for a selection of areal units.



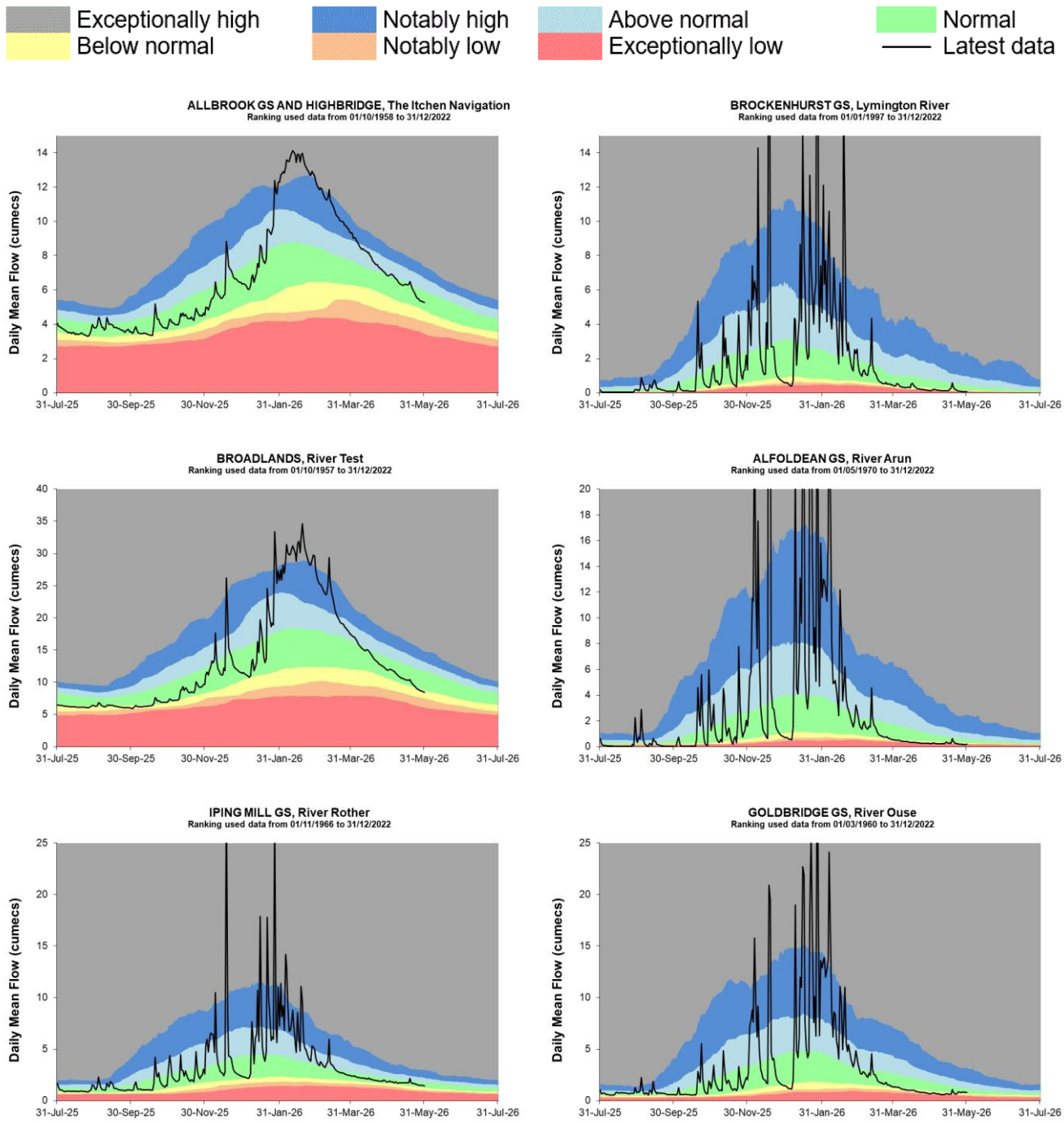


HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

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

6.2 SSD River flow charts

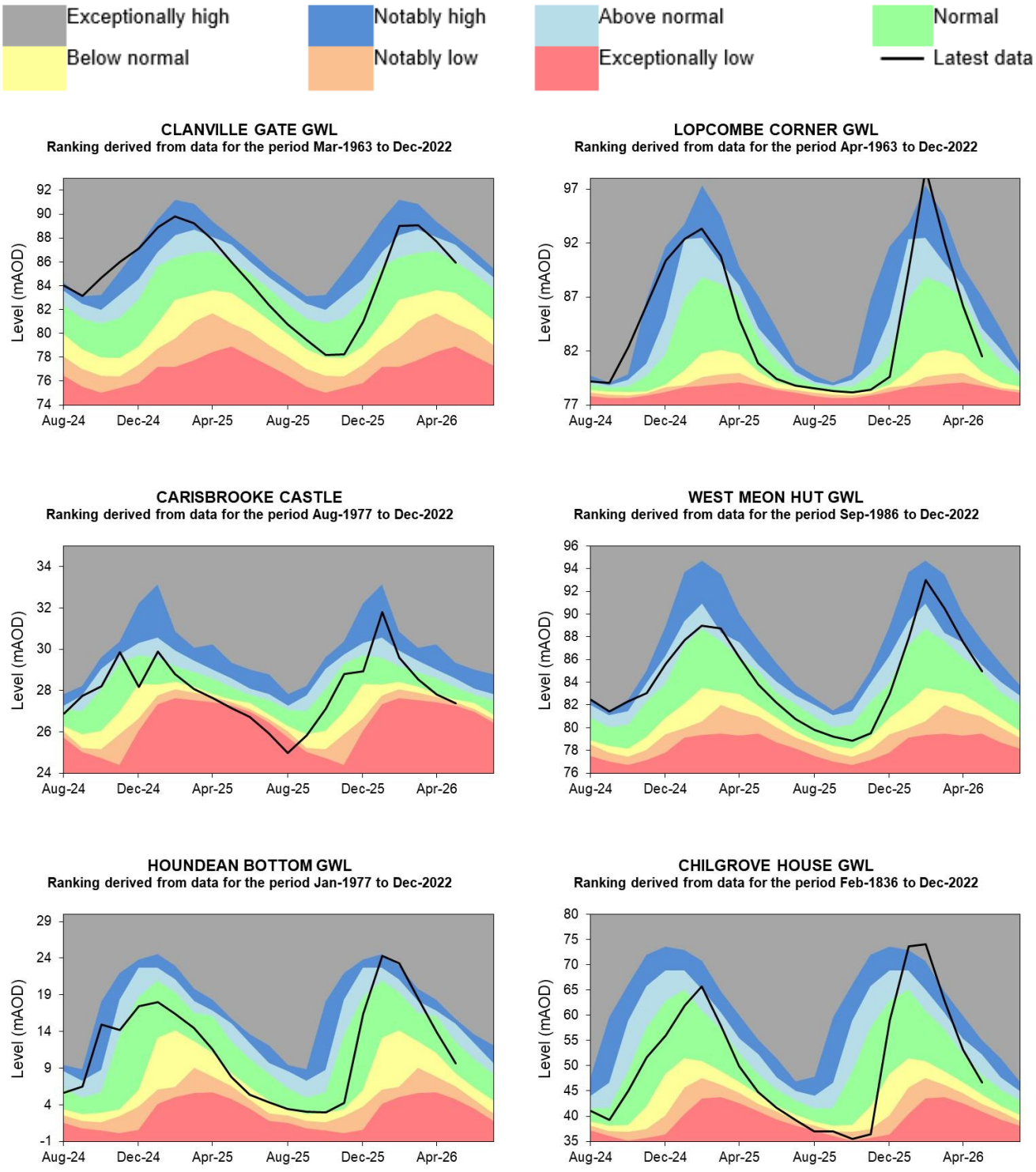
Figure 6.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency. 2026

6.3 SSD Groundwater levels

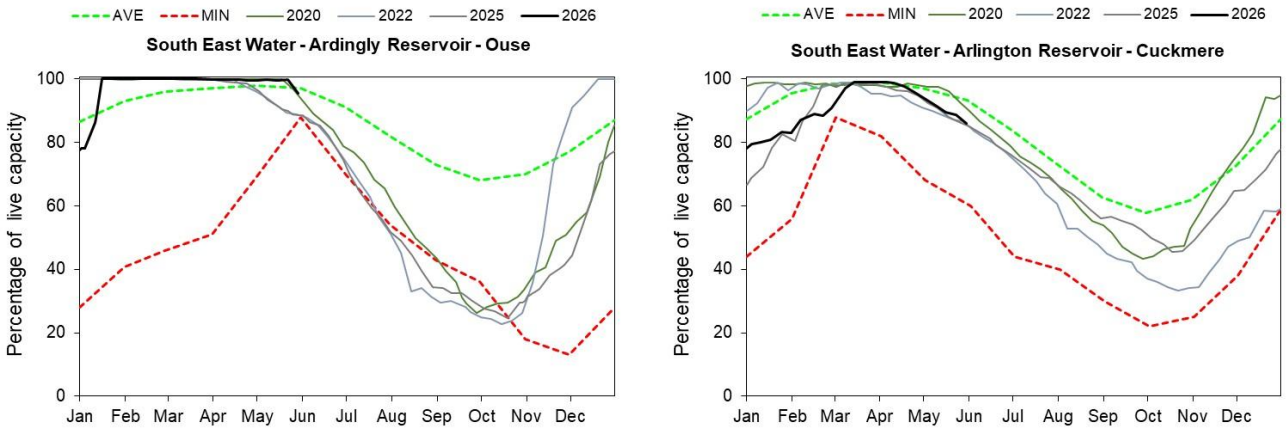
Figure 6.3: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



Source: Environment Agency, 2026.

6.4 SSD Reservoir stocks

Figure 6.4: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.

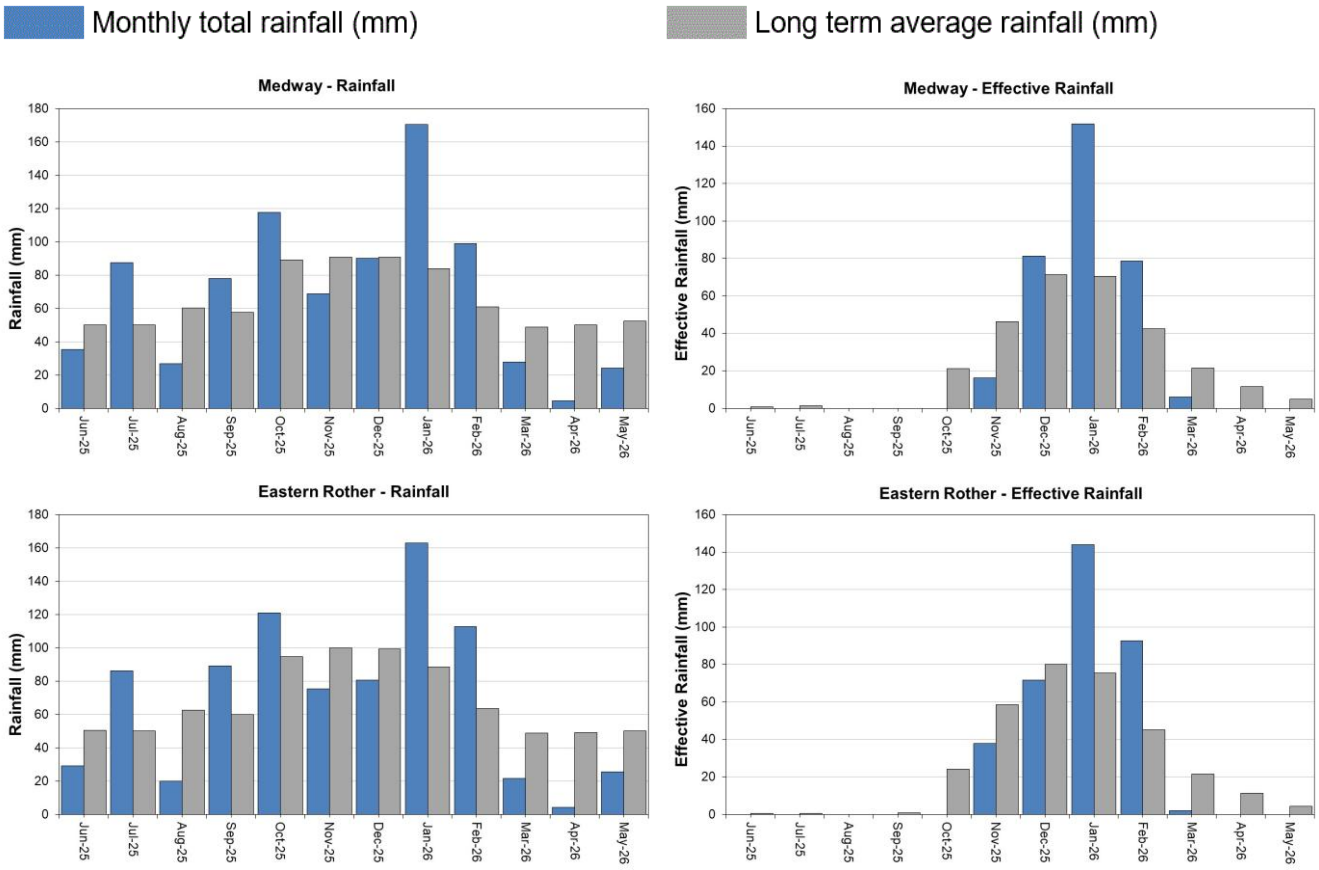


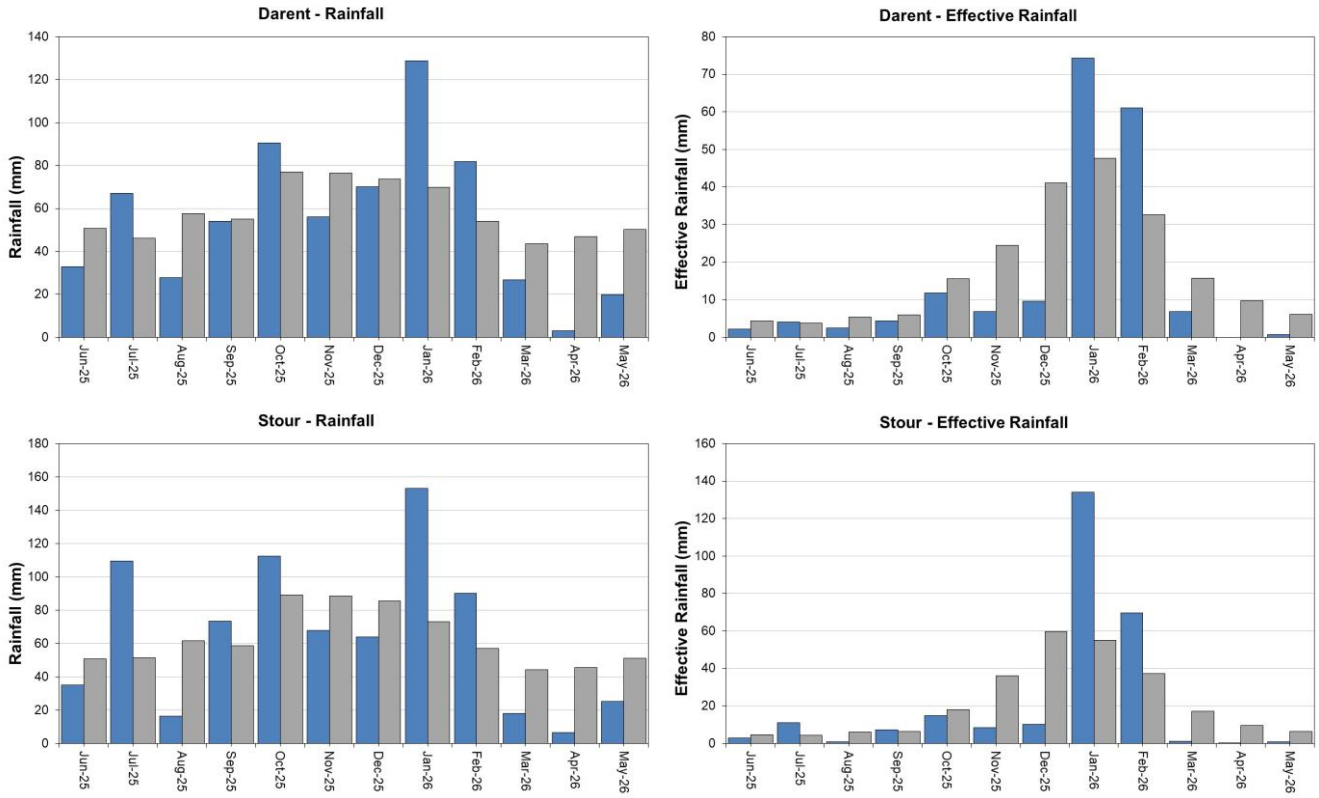
(Source: water companies).

7 Kent and South London (KSL)

7.1 KSL Rainfall and Effective Rainfall charts

Figure 7.1: Monthly rainfall and effective rainfall totals for the past 24 months compared to the 1991 to 2020 long term average for a selection of areal units.



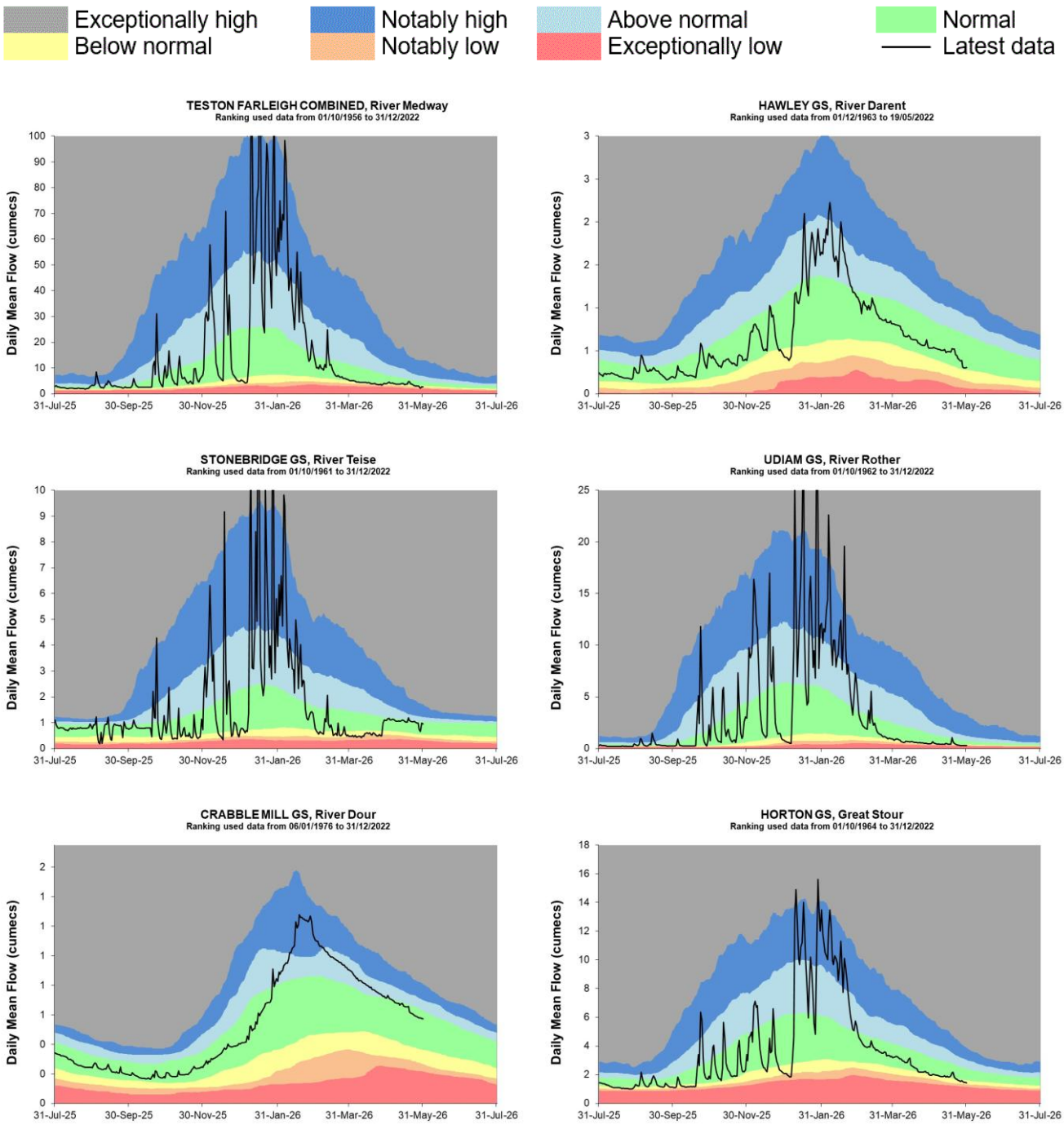


HadUK rainfall data. (Source: Met Office. Crown copyright, 2026).

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

7.2 KSL River flow charts

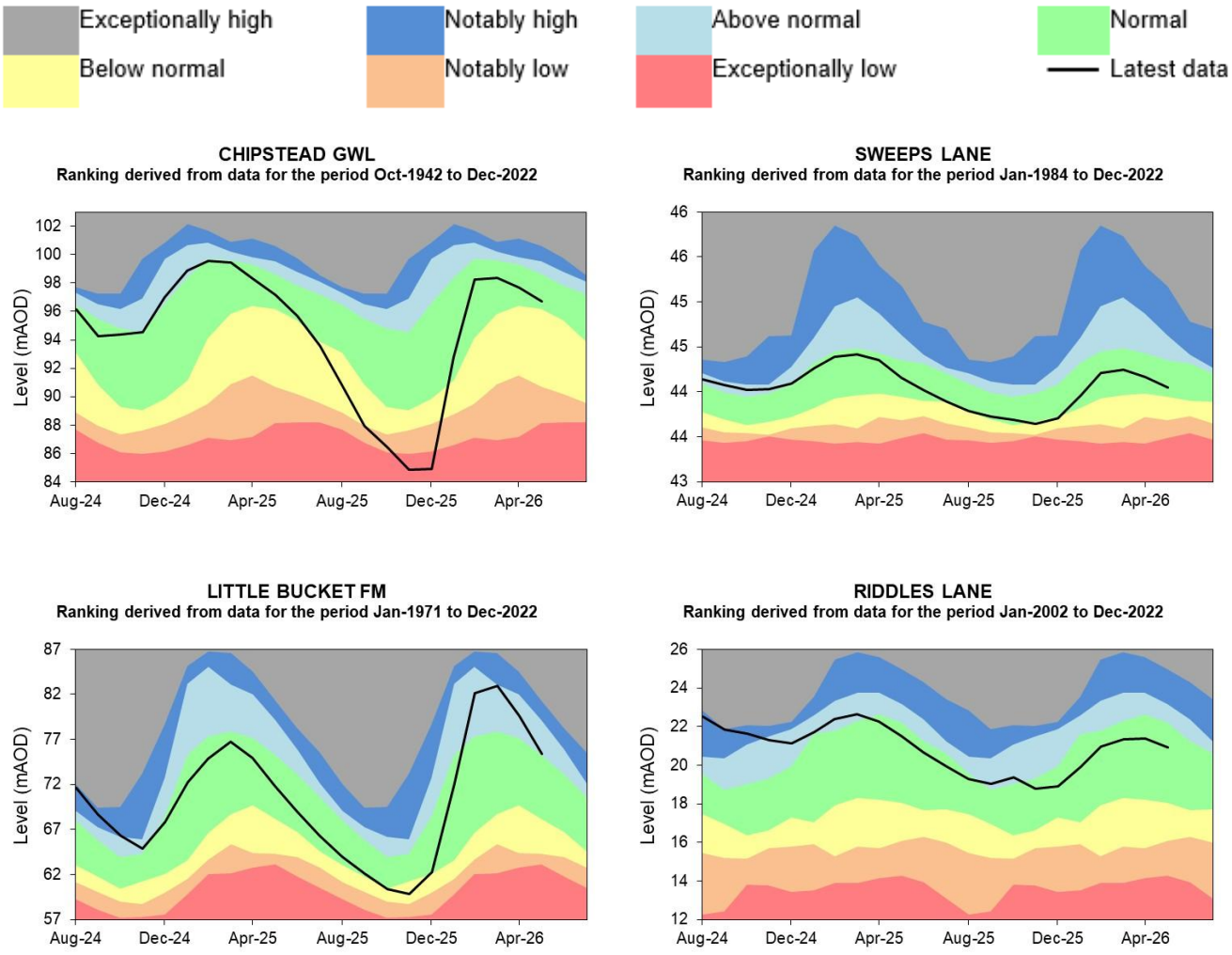
Figure 7.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency. 2026 .

7.3 KSL Groundwater levels

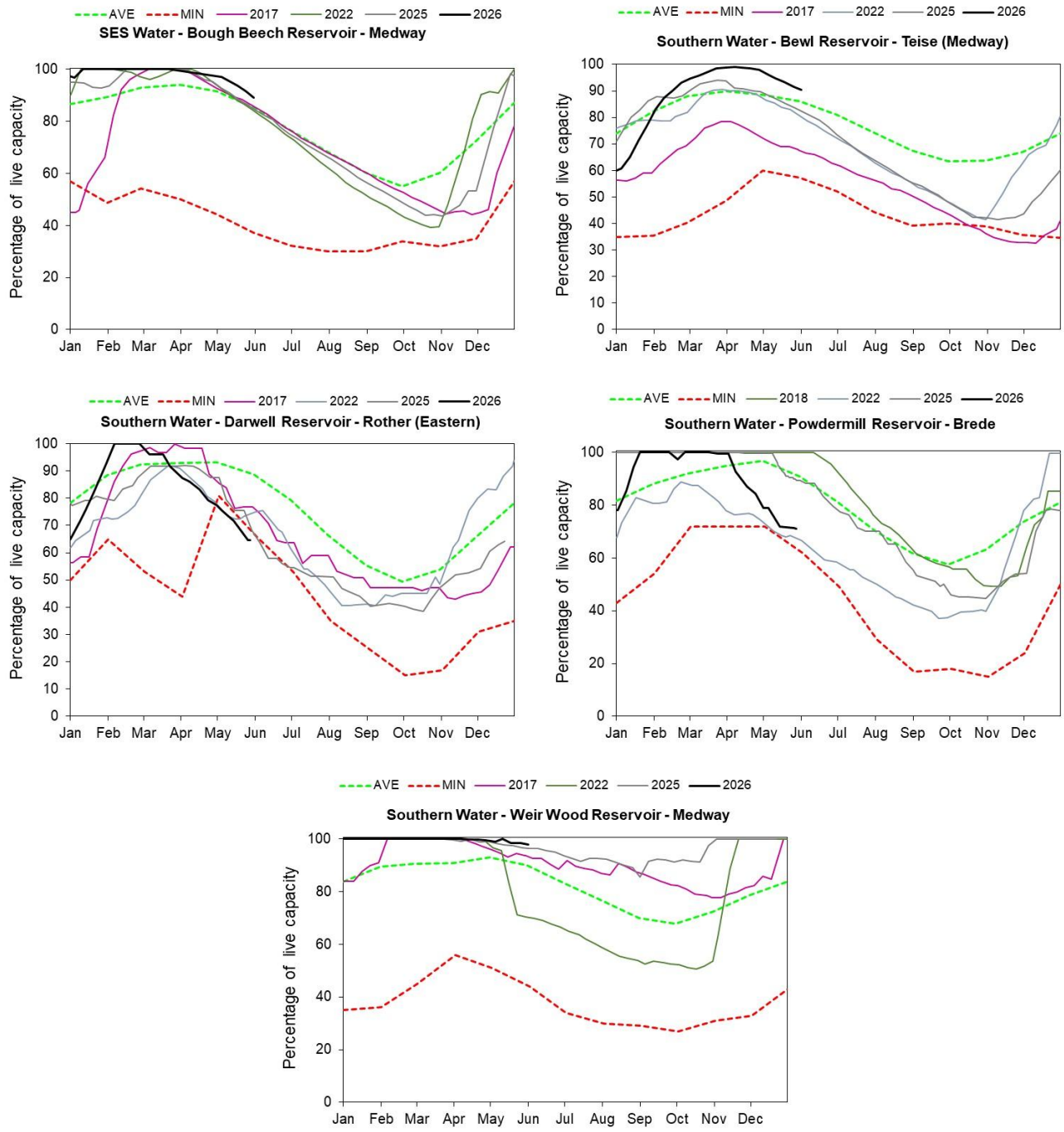
Figure 7.3: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



Source: Environment Agency. 2026

7.4 KSL Reservoir stocks

Figure 7.4: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.



(Source: water companies).

8 Glossary

8.1 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).

8.2 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.

9 Appendices

9.1 Rainfall table

Hydrological area	May 2026 rainfall % of long term average 1991 to 2020	May 2026 band	Mar 2026 to May cumulative band	Dec 2025 to May cumulative band	Jun 2025 to May cumulative band
Cotswold West	63	Normal	Exceptionally low	Above normal	Above normal
Cotswold East	57	Below Normal	Exceptionally low	Above normal	Normal
Berkshire Downs	38	Notably Low	Exceptionally low	Above normal	Normal
Chilterns West	35	Notably Low	Exceptionally low	Normal	Normal
Chilterns East Colne	33	Notably Low	Exceptionally low	Normal	Normal
North Downs - Hampshire	48	Below Normal	Notably low	Above normal	Normal
North Downs - South London	40	Notably Low	Exceptionally low	Normal	Normal
Upper Thames	49	Below Normal	Exceptionally low	Normal	Normal
Upper Cherwell	60	Below Normal	Exceptionally low	Above normal	Normal
Thame	44	Notably Low	Exceptionally low	Normal	Normal
Loddon	39	Notably Low	Notably low	Above normal	Normal
Lower Wey	42	Notably Low	Notably low	Above normal	Normal
Upper Mole	51	Below Normal	Exceptionally low	Above normal	Above normal
Lower Lee	31	Notably Low	Exceptionally low	Normal	Normal
North London	32	Notably Low	Exceptionally low	Normal	Normal
South London	37	Notably Low	Exceptionally low	Normal	Normal
Roding	27	Exceptionally Low	Exceptionally low	Normal	Below normal

Ock	40	Notably Low	Exceptionally low	Normal	Normal
Enborne	35	Notably Low	Exceptionally low	Above normal	Normal
Cut	36	Notably Low	Exceptionally low	Normal	Normal
Lee Chalk	31	Notably Low	Exceptionally low	Normal	Normal
River Test	46	Below Normal	Notably low	Notably high	Above normal
East Hampshire Chalk	60	Below Normal	Notably low	Notably high	Above normal
West Sussex Chalk	66	Normal	Notably low	Notably high	Above normal
East Sussex Chalk	66	Normal	Exceptionally low	Above normal	Above normal
Sw Isle Of Wight	75	Normal	Notably low	Notably high	Notably high
River Darent	40	Notably Low	Exceptionally low	Normal	Normal
North Kent Chalk	47	Below Normal	Exceptionally low	Normal	Normal
Stour	49	Below Normal	Exceptionally low	Normal	Normal
Dover Chalk	53	Below Normal	Exceptionally low	Above normal	Above normal
Thanet Chalk	55	Below Normal	Exceptionally low	Normal	Normal
Western Rother Greensand	64	Normal	Notably low	Notably high	Above normal
Hampshire Tertiaries	64	Below Normal	Notably low	Notably high	Notably high
Lymington River Avon Water And O	64	Below Normal	Exceptionally low	Notably high	Notably high
Sussex Coast	65	Normal	Exceptionally low	Notably high	Above normal
River Arun	62	Below Normal	Notably low	Notably high	Above normal
River Adur	61	Normal	Exceptionally low	Notably high	Above normal
River Ouse	62	Normal	Exceptionally low	Above normal	Above normal
Cuckmere River	65	Normal	Exceptionally low	Above normal	Normal

Pevensey Levels	61	Normal	Exceptionally low	Normal	Normal
River Medway	46	Below Normal	Exceptionally low	Above normal	Normal
Eastern Rother	51	Below Normal	Exceptionally low	Normal	Normal
Romney Marsh	47	Below Normal	Exceptionally low	Normal	Normal
North West Grain	44	Below Normal	Exceptionally low	Normal	Below normal
Sheppy	47	Below Normal	Exceptionally low	Normal	Normal

9.2 River flows table

Site name	River	Catchment	May 2026 band	Apr 2026 band
Colney Street_hansteads	Ver	Colne	Normal	Above normal
Feildes Weir	Lee (middle)	Lee	Normal	Normal
Panshanger	Mimram	Lee	Above normal	Above normal
Crabble Mill Gs	Dour	Little Stour	Normal	Above normal
Hawley Gs	Darent	Darent and Cray	Normal	Normal
Horton Gs	Great Stour	Stour Kent	Below normal	Normal
Stonebridge Gs	Teise	Teise	Normal	Notably low
Teston Farleigh Combined	Medway100	Medway Estuary	Below normal	Below normal
Udiam Gs	Rother	Rother Kent Lower	Below normal	Below normal
Alfoldean Gs	Arun	Arun	Notably low	Notably low
Allbrook Gs And Highbridge	Itchen (so)	Itchen	Normal	Above normal
Broadlands	Test	Test Lower	Normal	Normal
Brockenhurst Gs	Lymington	New Forest	Exceptionally low	Notably low
Goldbridge Gs	Ouse (so)	Ouse Sussex	Notably low	Below normal
Iping Mill Gs	Rother	West Rother	Normal	Normal
Farmoor (naturalised)	River Thames	Thames	Below normal	Normal
Kingston (naturalised)	River Thames	Thames North Bank	Below normal	Below normal
Marlborough	River Kennet	Kennet	Normal	Normal
Sheepbridge	River Loddon	Loddon	Below normal	Below normal
Tilford	River Wey	Wey Addleston Bourne	Normal	Normal

9.3 Groundwater table

Site name	Aquifer	End of May 2026 band	End of Apr 2026 band
Ashley Green Stw	Mid-chilterns Chalk	Normal	Normal
Lilley Bottom	Upper Lee Chalk	Normal	Normal
Little Bucket Fm	East Kent Chalk - Stour	Above normal	Above normal
Chipstead Gwl	Epsom North Downs Chalk	Normal	Normal
Riddles Lane	North Kent Swale Chalk	Normal	Normal
Sweeps Lane Gwl	West Kent Chalk	Normal	Normal
Houndean Bottom Gwl	Brighton Chalk Block	Normal	Normal
Chilgrove House Gwl	Chichester-worthing-portsdown Chalk	Normal	Above normal
Carisbrooke Castle	Isle Of Wight Central Downs Chalk	Notably low	Below normal
West Meon Hut Gwl	River Itchen Chalk	Above normal	Notably high
Clanville Gate Gwl	River Test Chalk	Normal	Above normal
Lopcombe Corner Gwl	River Test Chalk	Normal	Normal
Long Sutton	Basingstoke Chalk	Normal	Normal
Rockley Obh	Berkshire Downs Chalk	Normal	Normal
Jackaments Bottom Obh	Burford Oolitic Limestone (inferior)	Notably low	Notably low
Stonor Estate	South-west Chilterns Chalk	Normal	Normal

9.4 South-east England areal units for reference