

Monthly water situation report: Kent, South London and East Sussex area

1 Summary - July 2026

The Kent, South London and East Sussex (KSLES) area recorded 1% of the long-term average (LTA) rainfall for July. Soil moisture deficits (SMDs) continued to increase across KSLES and stretched further from the LTA. Monthly mean river flows (MMFs) decreased across all key flow indicator sites except for the Teise at Stonebridge (normal) and the Dour at Crabble (normal). Four sites recorded flows within the exceptionally low class. Groundwater levels across KSLES continued to decline, with Fleete Reservoir, Chipstead and Sweeps Lane now falling within the below normal class. Reservoir storage levels also decreased during July, ranging from exceptionally low to above normal.

1.1 Rainfall

July has been a dry month with all hydrological areas in KSLES recording exceptionally low rainfall (1% of the LTA). The maximum rainfall received was 3% in the Upper Mole. The highest daily rainfall total of 2.8mm was observed on 30 July at Hartley PS rain gauge in the Darent hydrological area. July 2026 was the driest July on record (since record began in 1871). In addition, from April to July 2026 was the fourth driest on record.

1.2 Soil moisture deficit and recharge

Due to the continued lack of rainfall and high temperatures, SMD increased across KSLES during July. This summer period (from 1 April to end of July), KSLES has received only 51% of the LTA rainfall, creating a large SMD. By month end KSLES had a SMD of 168mm, increasing from 125mm in June. The SMD in KSLES is now 64mm higher than the LTA (104mm), meaning it is significantly drier than expected for the time of year. The south-west of the area has the largest difference from LTA with 4 regions greater than 75mm. The majority of the area is yet to receive any effective rainfall this summer period.

1.3 River flows

The continued lack of rainfall that has led to drier soils is beginning to influence river flows in most of the hydrological areas. River flows decreased at all of our indicator sites with MMFs ranging from normal to exceptionally low during July. Exceptionally low flows have been recorded in flashy rivers that are highly responsive to rainfall. The River Eden at Vexour/Penshurst, the River Mole at Dorking, and the River Ravensbourne at Catford each recorded their lowest July MMF since records began at those gauging stations. This pattern reflects the geology of the region as all are found in catchments with lower groundwater baseflow support. Normal flows were seen in the Dour at Crabble and the Teise at

Stonebridge. The Dour continued to benefit from groundwater contributions from the Dover Chalk aquifer. Flows in the Teise at Stonebridge are supported by releases from Bewl reservoir, which feeds into the Medway. Other chalk and Lower Greensand aquifer supported rivers, the Darent at Hawley, the Stour at Horton, and the Wandle at Crabble recorded below normal flows during July.

1.4 Groundwater levels

Groundwater levels continued to decline seasonally across KSLES. The decline is consistent with the expected seasonal pattern. However, the rate of recession has been more pronounced, reflecting the lack of rainfall over the last six-month period and the SMDs registered. Most groundwater sites (4) remain in the normal class, however groundwater levels in the chalk aquifer sites vary. Western sites of Chipstead and Sweeps Lane fall within the below normal class for this period, whilst in the east, Fleete Reservoir is the only site currently recording levels below the normal category. Eastern sites of Little Bucket, Riddles Lane and Wolverton are normal. Despite continued seasonal reduction in levels within the Lower Greensand aquifer, levels at Riverhead remained in the normal class for this time of year.

1.5 Reservoir stocks

With no rainfall recharge and continued high temperatures, storage across all 5 reservoirs fell during July. By the end of July, the reservoirs held the following live storage capacities and banding categories:

- Bewl – 68% normal
- Bough Beech – 68% normal
- Darwell – 53% below normal
- Powdermill – 33% exceptionally low
- Weir Wood – 90% above normal

Weir Wood reservoir remains offline.

1.6 Environmental impact

Hands-off flow (HoF) restrictions remained widespread throughout July across the Medway, Stour and Rother catchments. Restrictions introduced in the Medway and Stour catchments during March and April, and in the Rother catchment during mid-June, persisted throughout the month. A handful of additional HoF restrictions were triggered during the first half of July across the Stour, Darent and North Kent catchments.

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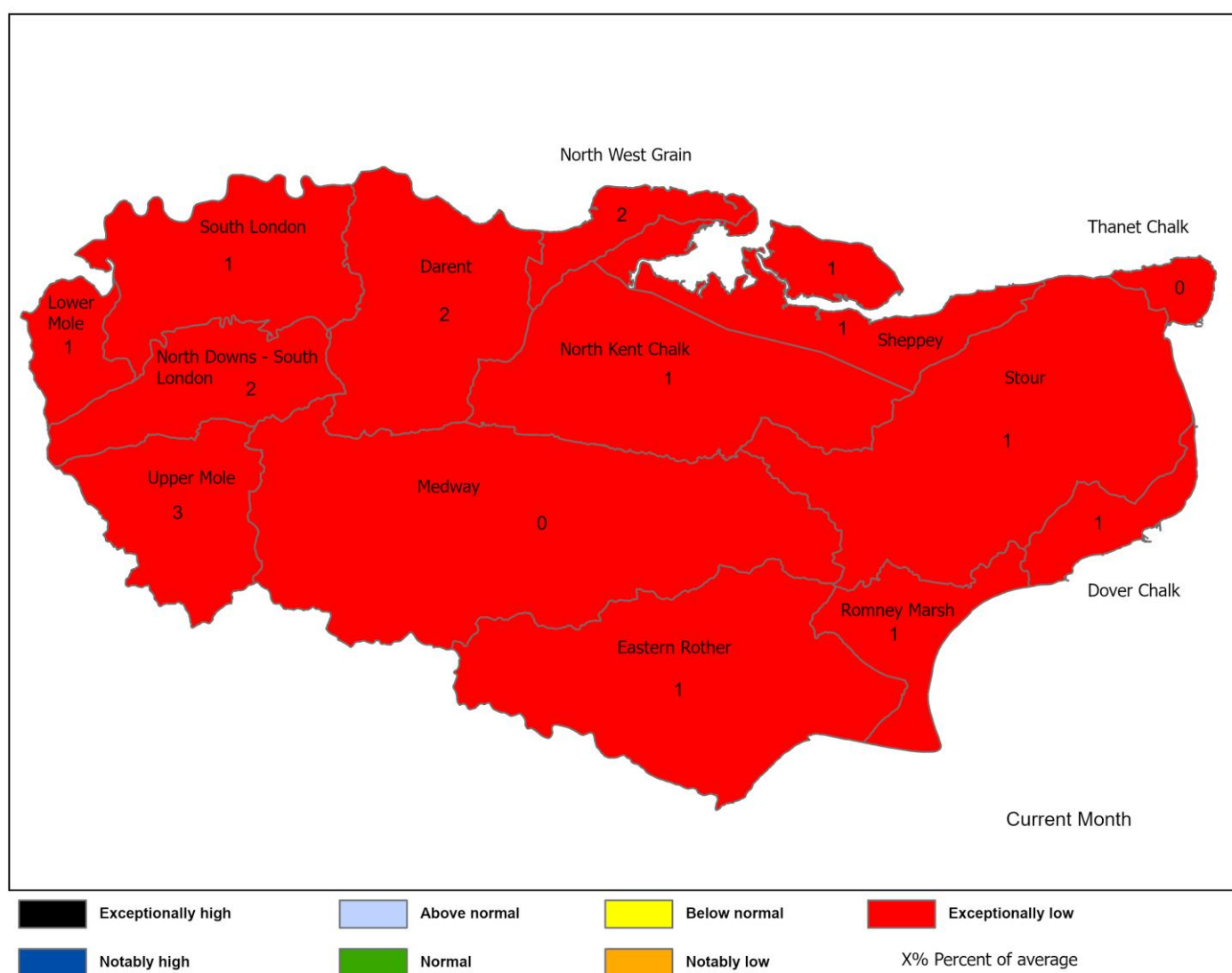
Author: Groundwater and Hydrology Team, ksl.gwh@environment-agency.gov.uk

Contact Details: 03708 506 506

2 Rainfall

2.1 Rainfall map one

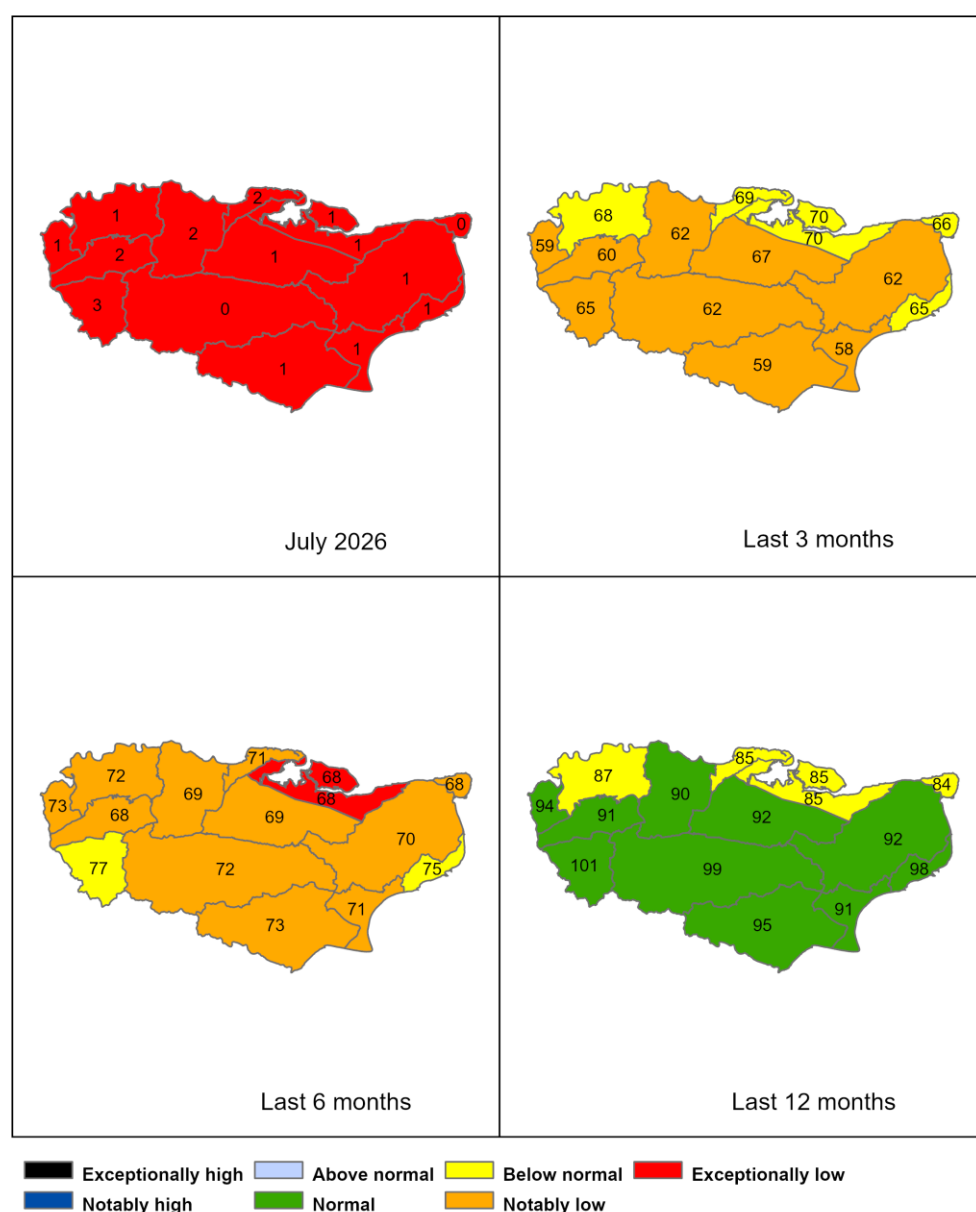
Figure 2.1: Total rainfall for hydrological areas across Kent, South London and East Sussex for the current month (up to 31 July 2026), classed relative to historic totals and as a percentage of the 1991 to 2020 long term average. Table available in the appendices with more detailed information.



Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges (source: EA. 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 two

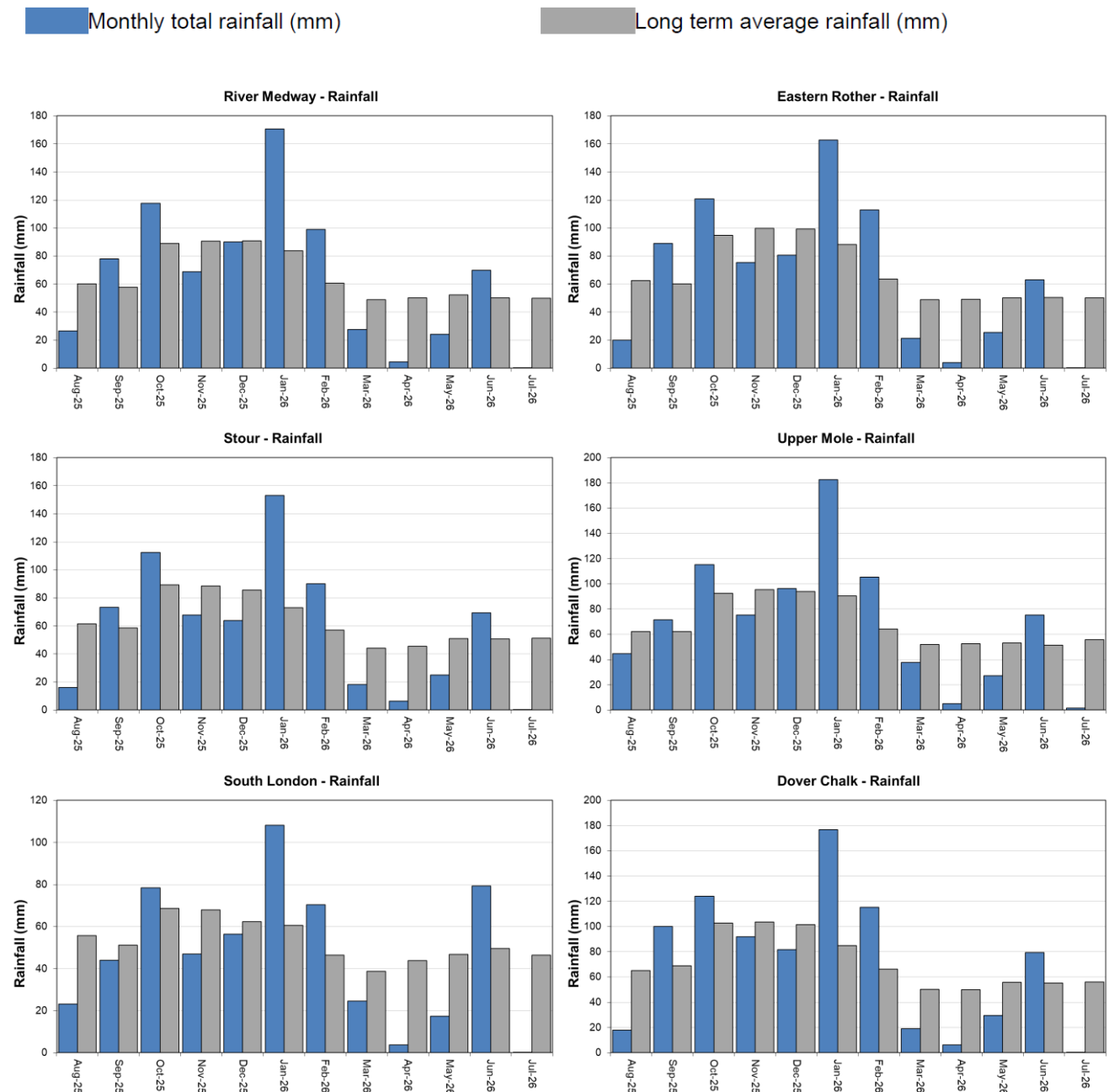
Figure 2.2: Total rainfall for hydrological areas for the current month (up to 31 July 2026), the last 3 months, the last 6 months, and the last 12 months, classed relative to historic totals and as a percentage of the 1991 to 2020 long term average. Table available in the appendices with detailed information.

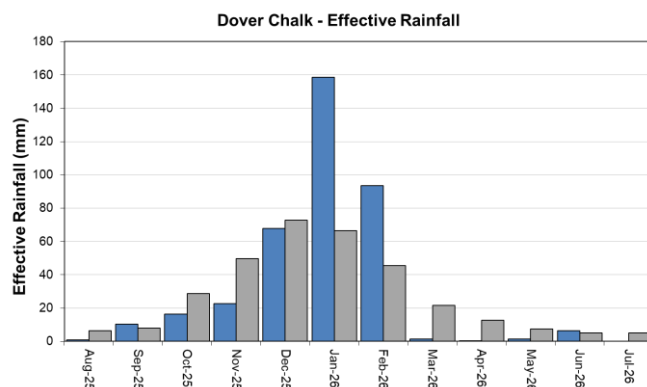
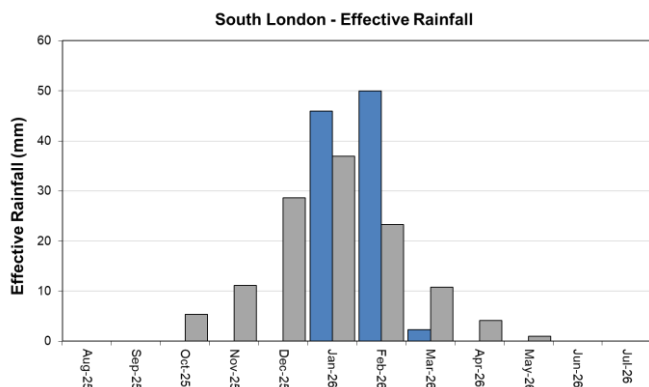
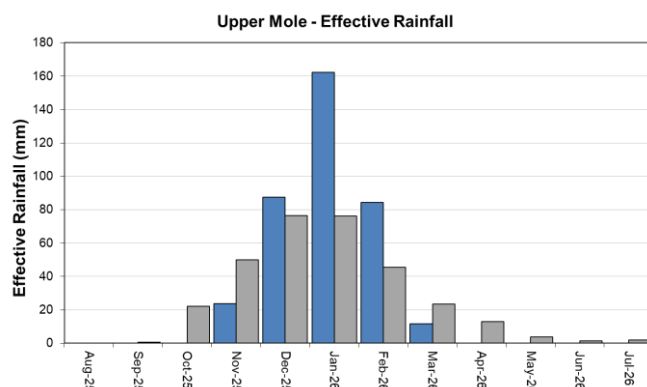
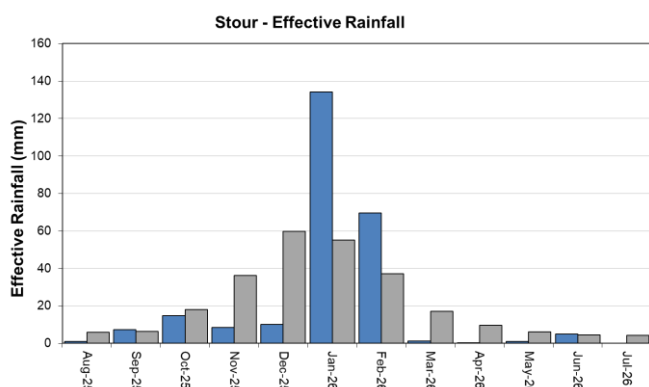
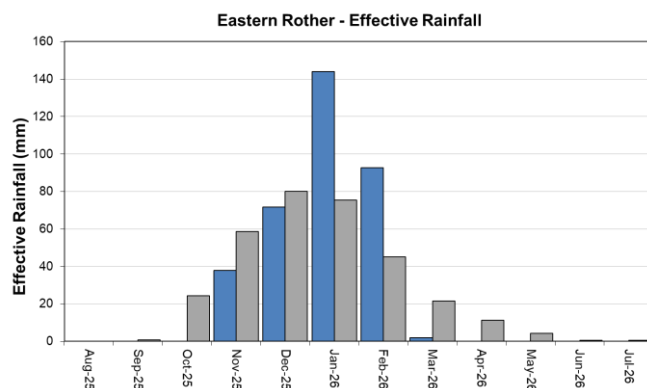
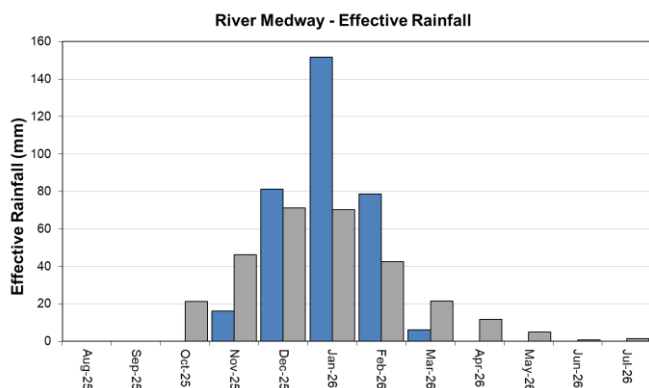


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges (source: EA. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

2.3 Rainfall and effective rainfall charts

Figure 2.3: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 LTA for a selection of areal units.





Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges (source: EA. Crown Copyright, 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). EA effective rainfall data (source: EA Soil Moisture Model, 2026).

2.4 Rainfall and effective rainfall table

Figure 2.4: This is an estimate of areal rainfall and effective rainfall (percolation or runoff) for a selection of the hydrological areas across the KSLES area. 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 section 2.5.

Hydrological area	Rainfall (mm) July total	July LTA %	Effective rainfall (mm) July total	July LTA %
North Downs - South London	1	1%	0	0%
Upper Mole	1	2%	0	0%
South London	0	0%	0	0%
Darent	1	1%	0	0%
North Kent Chalk	1	1%	0	0%
Stour	0	0%	0	0%
Dover Chalk	0	0%	0	0%
Thanet Chalk	0	0%	0	0%
Medway	0	0%	0	0%
Eastern Rother	0	0%	0	0%
Romney Marsh	0	1%	0	0%
North West Grain	1	1%	0	0%
Sheppey	0	0%	0	0%

Kent, South London & East Sussex Average	0	1%	0	0%
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Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges (source: EA. Crown Copyright, 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). EA effective rainfall data (source: EA Soil Moisture Model, 2026).

2.5 Seasonal summary table of rainfall and effective rainfall

Figure 2.5: This is a seasonal estimate of areal rainfall and effective rainfall (percolation or runoff) for a selection of the hydrological areas across the KSLES area, 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 31/07/2026

Hydrological area	Seasonal rainfall (mm) total	% LTA	Seasonal effective rainfall (mm) total	% LTA
North Downs - South London	102	47%	7	21%
Upper Mole	109	51%	0	0%
South London	101	54%	0	0%
Darent	94	48%	6	26%
North Kent Chalk	103	53%	6	24%
Stour	101	51%	6	24%
Dover Chalk	115	53%	8	26%
Thanet Chalk	99	55%	5	33%
Medway	99	49%	0	0%
Eastern Rother	93	46%	0	0%
Romney Marsh	88	48%	0	0%
North West Grain	91	54%	0	0%

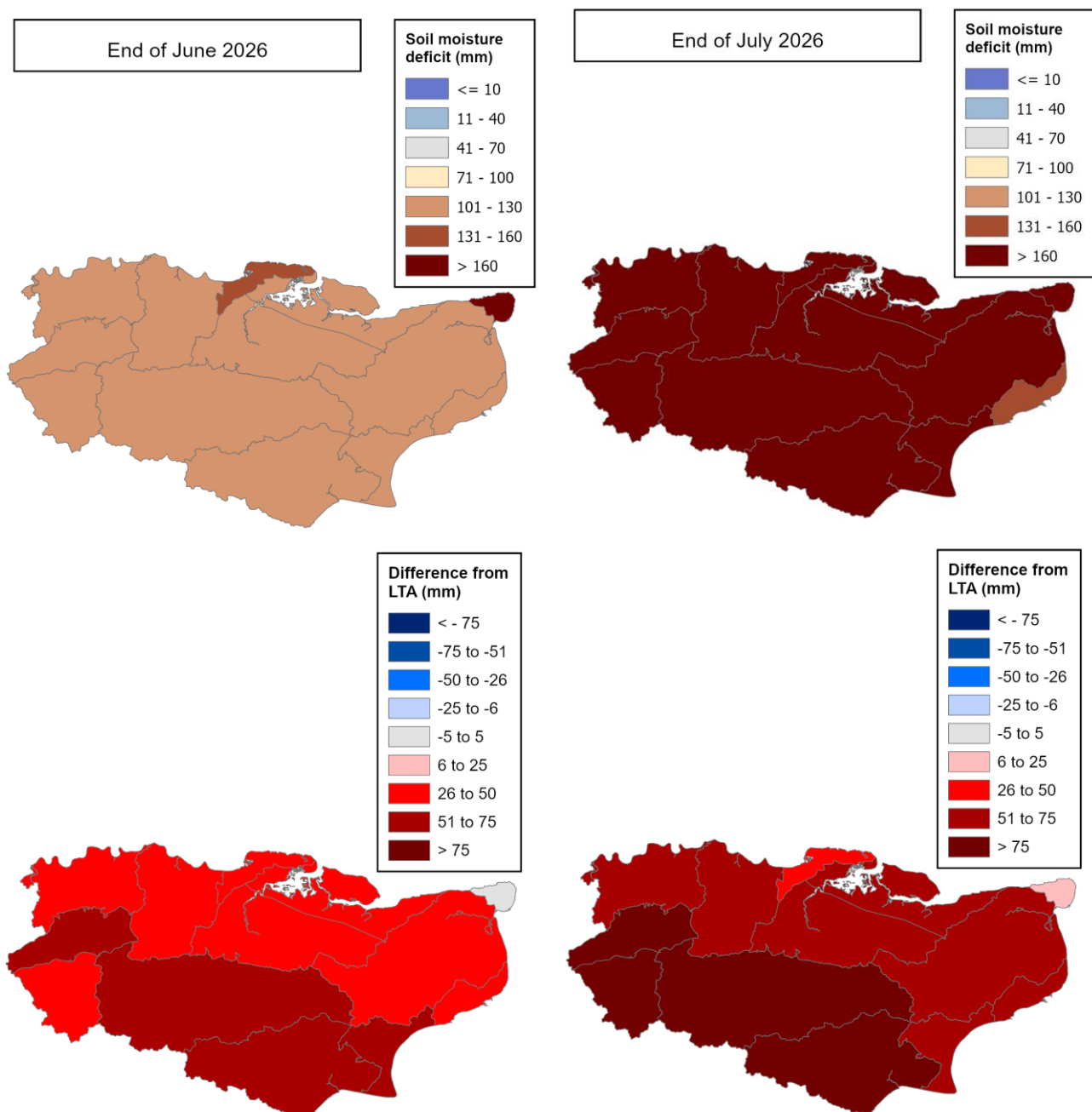
Sheppey	96	56%	0	0%
Kent, South London & East Sussex Average	99	51%	3	17%

Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges (source: EA. Crown Copyright, 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). EA effective rainfall data (source: EA Soil Moisture Model, 2026).

3 Soil moisture deficit

3.1 Soil moisture deficit map

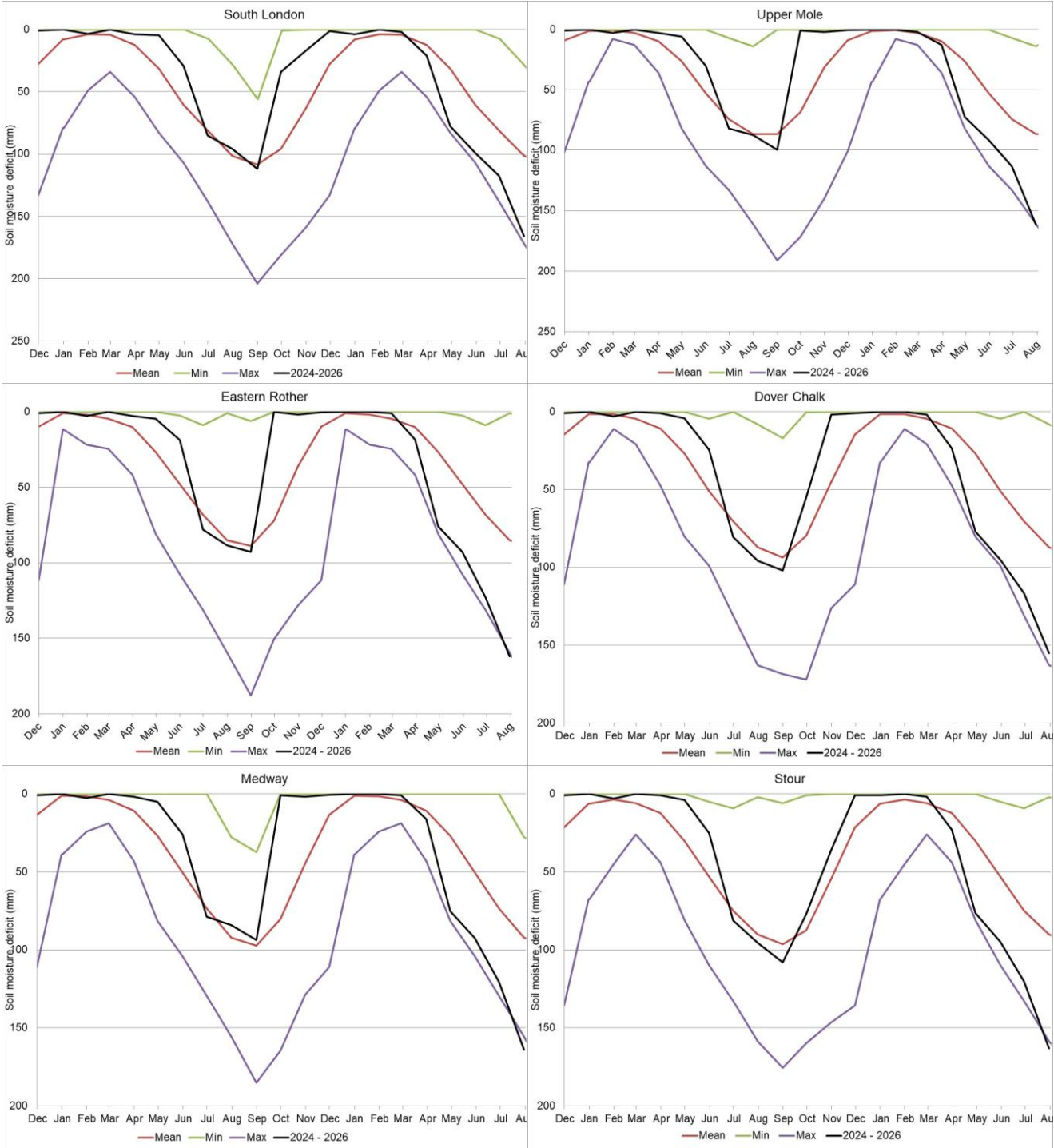
Figure 3.1: Soil moisture deficits calculated up to end of June 2026 (left panel) and to end of 31 July 2026 (right panel). Top row shows actual soil moisture deficits (mm) and bottom row shows the difference (mm) of the actual from the 1991 to 2020 long term average soil moisture deficits.



EA soil moisture deficit data (source: EA Soil Moisture Model, 2026).

3.2 Soil moisture deficit charts

Figure 3.2: Latest soil moisture deficit compared to maximum, minimum, and 1991 to 2020 long term average.



EA soil moisture deficit data (source: EA Soil Moisture Model, 2026).

3.3 Soil moisture deficit table

Figure 3.3: This is an estimate of soil moisture deficit for the hydrological areas across the KSLES area. There may be significant variation within each area which must be considered when interpreting the data.

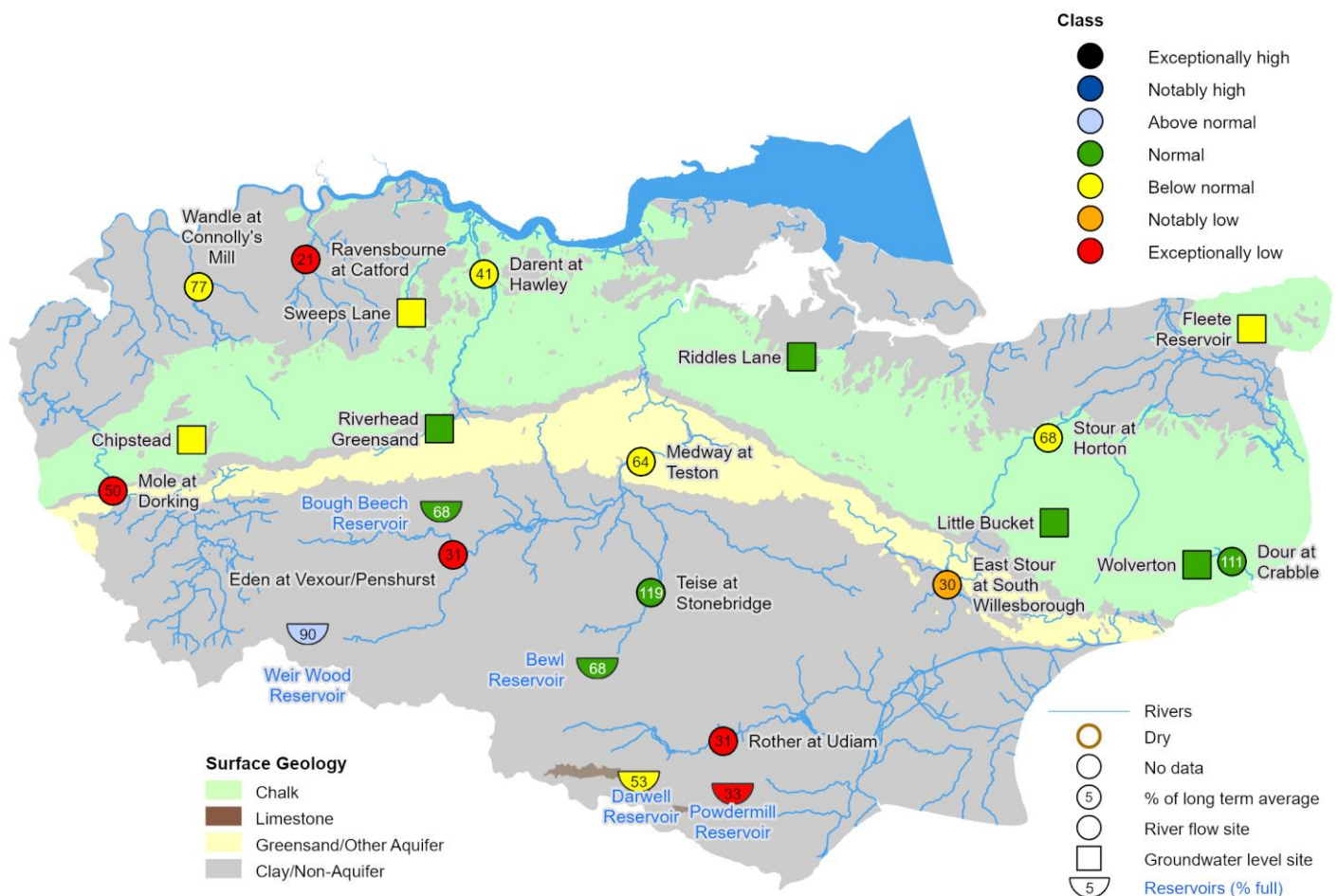
Hydrological area	SMD (mm) day 31	End July LTA
North Downs - South London (W)	167	89
Upper Mole	162	85
South London	166	103
Darent	171	98
North Kent Chalk	165	96
Stour	163	95
Dover Chalk	155	90
Thanet Chalk	199	190
Medway	164	87
Eastern Rother	162	87
Romney Marsh	164	93
North West Grain	173	124
Sheppey	171	114
Kent & South London Average	168	104

EA soil moisture deficit data (source: EA Soil Moisture Model, 2026).

4 River flows, groundwater levels and reservoir stocks

4.1 River flows, groundwater levels and reservoir stocks map

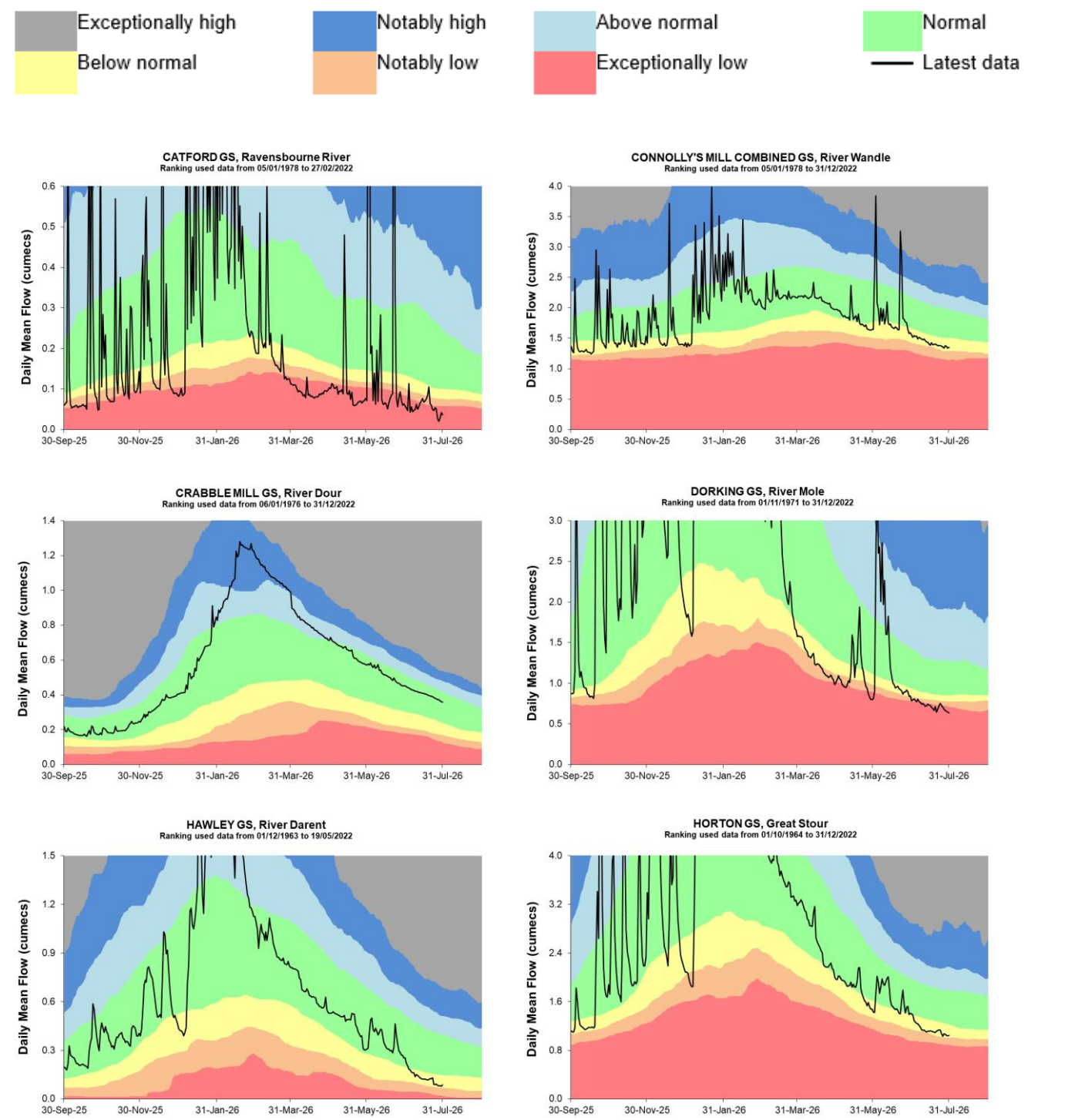
Figure 4.1: Monthly mean river flows* for indicator sites for July 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic July monthly means. *Flows at gauging stations in the Medway catchment might be affected by upstream reservoir releases. End of month groundwater levels for indicator sites for July 2026, classed relative to an analysis of historic July levels. End of month levels for reservoirs** for July 2026, expressed as percent full. **Weir Wood Reservoir is currently offline. Table available in the appendices with detailed information.

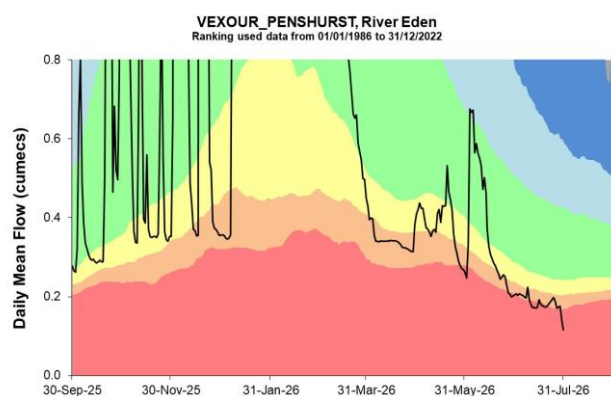
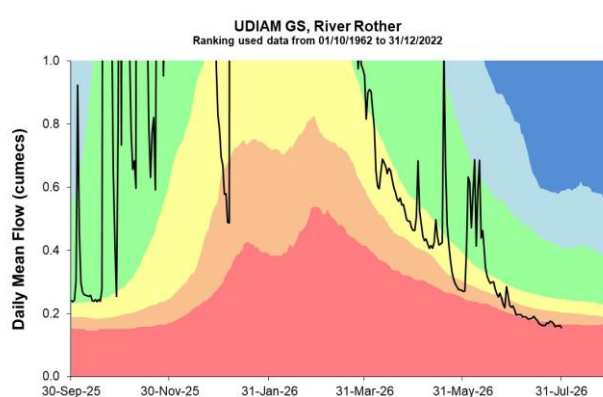
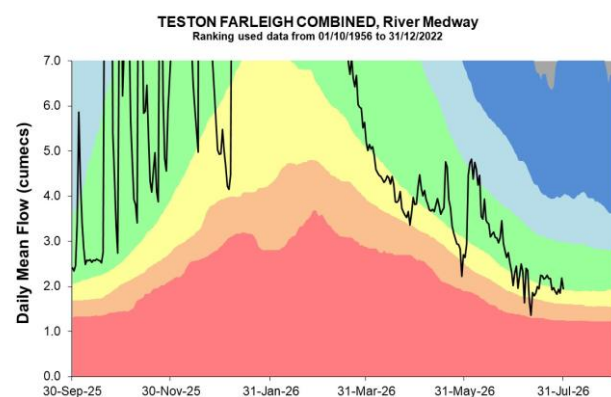
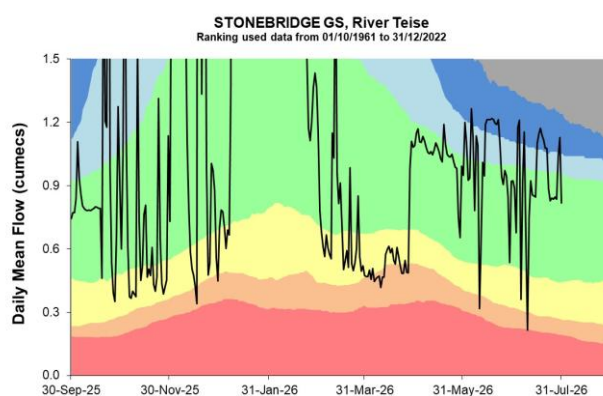
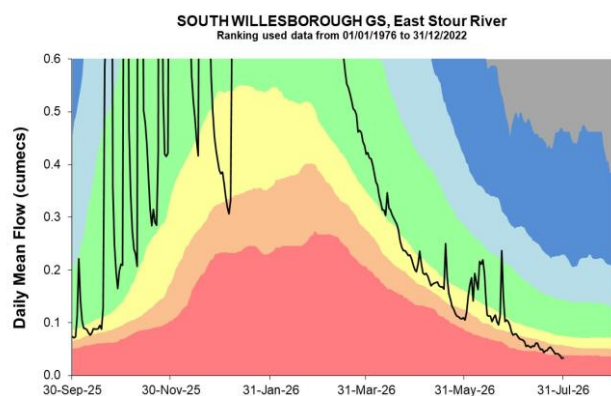


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4.2 River flow charts

Figure 4.1: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows.



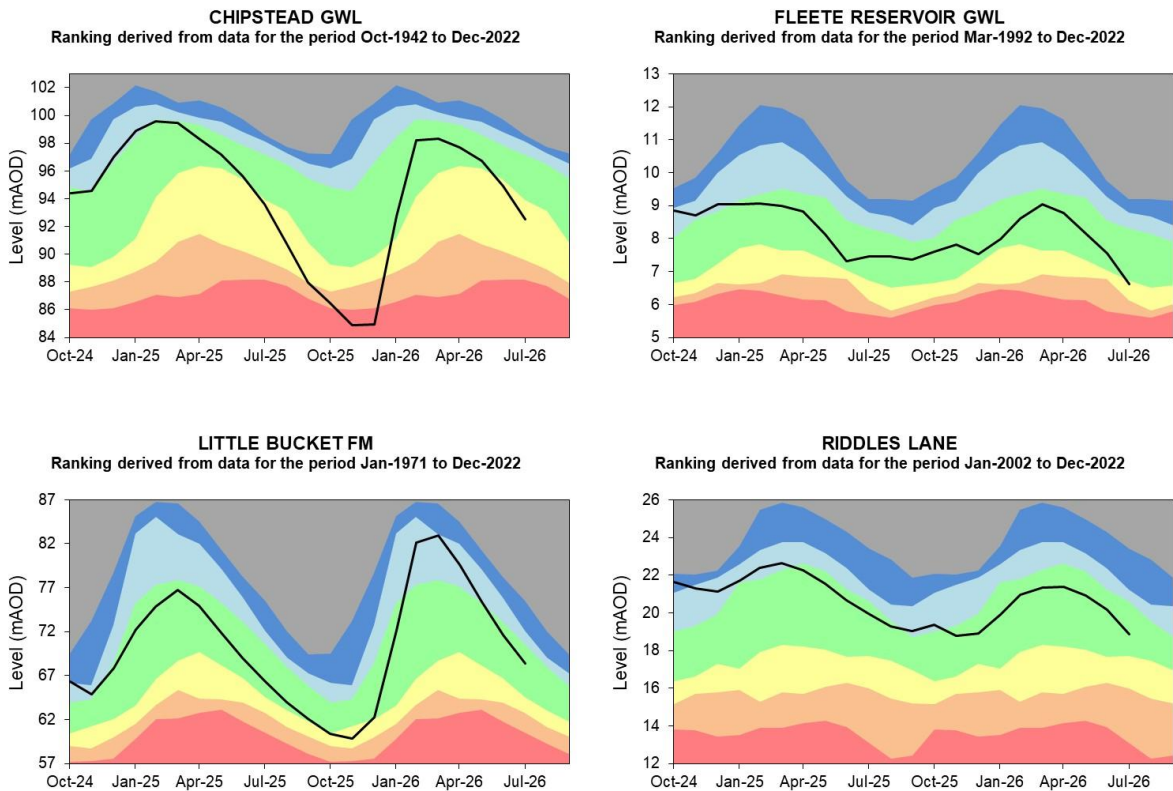
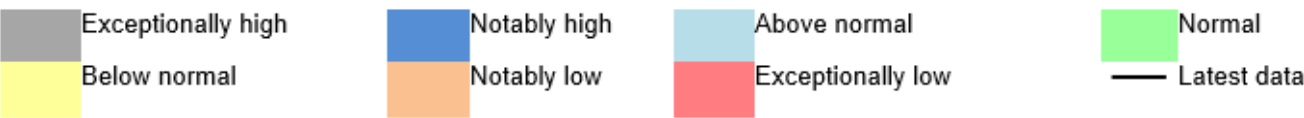


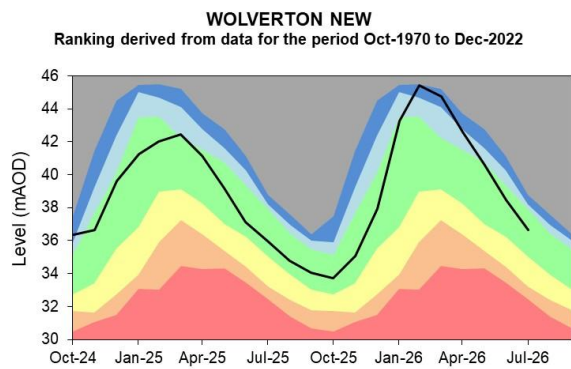
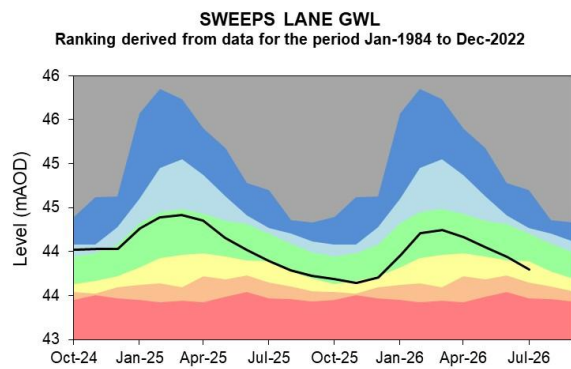
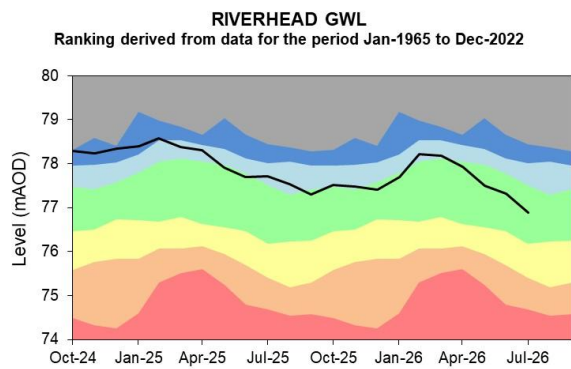
Daily mean flow data (source: Environment Agency, 2026).

5 Groundwater levels

5.1 Groundwater level charts

Figure 5.1: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month.



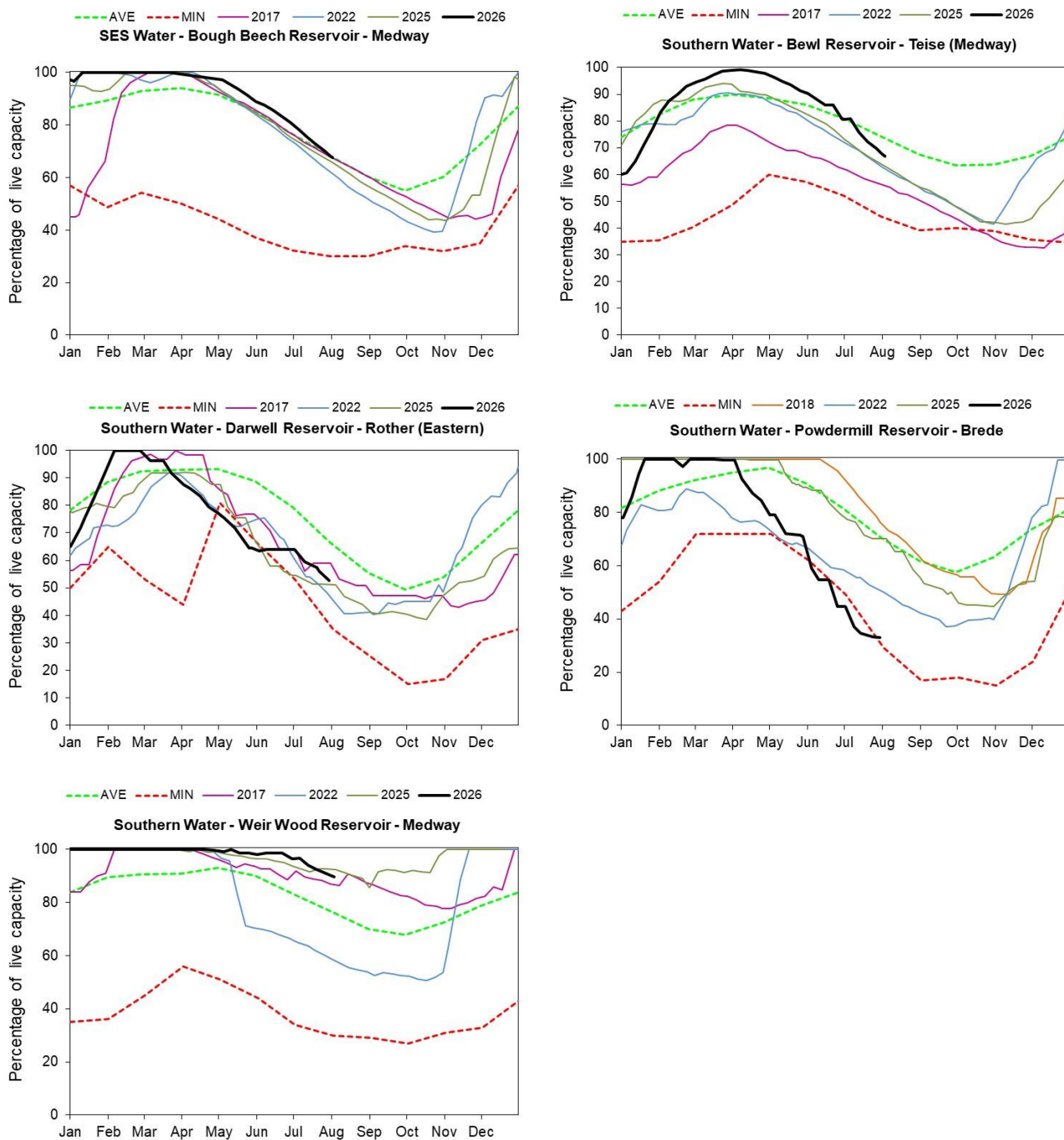


Month end groundwater level data (source: Environment Agency, 2026).

6 Reservoir stocks

6.1 Reservoir stocks charts

Figure 6.1: End of month regional reservoir stocks compared to long term minimum and average stocks.



Source: Water Companies.

7 Glossary

7.1 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^3/s).

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 40km 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 1km 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).

7.2 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.

8 Appendices

8.1 Rainfall table

Hydrological area	Jul 2026 rainfall % of long term average 1961 to 1990	Jul 2026 band	May 2026 to July cumulative band	Feb 2026 to July cumulative band	Aug 2025 to July cumulative band
North Downs - South London	2	Exceptionally Low	Notably low	Notably low	Normal
Upper Mole	3	Exceptionally Low	Notably low	Below normal	Normal
South London	1	Exceptionally Low	Below normal	Notably low	Below normal
River Darent	2	Exceptionally Low	Notably low	Notably low	Normal
North Kent Chalk	1	Exceptionally Low	Notably low	Notably low	Normal
Stour	1	Exceptionally Low	Notably low	Notably low	Normal
Dover Chalk	1	Exceptionally Low	Below normal	Below normal	Normal
Thanet Chalk	0	Exceptionally Low	Below normal	Notably low	Below normal
River Medway	0	Exceptionally Low	Notably low	Notably low	Normal

Eastern Rother	1	Exceptionally Low	Notably low	Notably low	Normal
Romney Marsh	1	Exceptionally Low	Notably low	Notably low	Normal
North West Grain	2	Exceptionally Low	Below normal	Notably low	Below normal
Sheppey	1	Exceptionally Low	Below normal	Exceptionally low	Below normal

8.2 River flows table

Site name	River	Catchment	Jul 2026 band	Jun 2026 band
Catford	River Ravensbourne	Ravensbourne	Exceptionally low	Normal
Connolly's Mill Combined	River Wandle	Wandle	Below normal	Normal
Crabble Mill	River Dour	Dour	Normal	Normal
Dorking	River Mole	Mole Surrey	Exceptionally low	Normal
Hawley	River Darent and Cray	Darent and Cray	Below normal	Normal
Horton	Great Stour River	Great Stour	Below normal	Normal
South Willesborough	East Stour River	East Stour	Notably low	Below normal
Stonebridge	River Teise	Teise	Normal	Normal
Teston Farleigh Combined	River Medway	Medway (Middle)	Below normal	Normal
Udiam	River Rother	Rother (Kent)	Exceptionally low	Below normal
Vexour_penshurst	River Eden	Eden (Kent)	Exceptionally low	Below normal

8.3 Groundwater table

Site name	Aquifer	End of Jul 2026 band	End of Jun 2026 band
Fleete Reservoir	Isle Of Thanet Chalk	Below normal	Normal
Chipstead	Epsom North Downs Chalk	Below normal	Below normal
Little Bucket Fm	East Kent Chalk - Stour	Normal	Normal
Riddles Lane	North Kent Swale Chalk	Normal	Normal
Riverhead	Kent Greensand	Normal	Normal
Sweeps Lane	West Kent Chalk	Below normal	Normal
Wolverton New	East Kent Chalk - Stour	Normal	Normal