

Monthly water situation report: Kent and South London Area

1 Summary - September 2026

Dry conditions persisted in September, with the Kent, South London and East Sussex (KSLES) area recording just 69% of the long-term average (LTA) rainfall for the month. Soil Moisture Deficits (SMDs) continued to increase in response to limited effective rainfall, remaining significantly higher than the LTA and much higher than this time last year. River flows showed some recovery during September, with daily mean flows generally increasing across the area. However, monthly mean flows remained largely below usual for the time of year, ranging from notably low to normal. Groundwater levels continued to decline throughout September. Levels in the Chalk aquifer largely remained the same status as the end of August 2026, except at Chipstead which saw a sharp fall from below normal to exceptionally low. Levels in the Lower Greensand aquifer remained in the normal range. Four of the five reservoirs in the KSLES area recorded a decrease in storage during September; Bewl and Bough Beech remained below normal, while Weirwood fell into the normal range, and Darwell fell to notably low. Powdermill was the only reservoir to record an increase in levels, but only by 1%. However, all are tracking slightly steeper than normal drawdown rates.

1.1 Rainfall

An average of 39mm of rain fell across the KSLES area in September, 69% of the LTA. Rainfall totals were generally higher in the east of the patch where catchments recorded normal rainfall totals for the time of year, whilst catchments in the west recorded below normal rainfall. The Thanet Chalk and Dover Chalk hydrological areas received the highest rainfall total in KSLES, 100% and 81% of the LTA, while the Lower Mole received the least rainfall with just 54% of the LTA.

September was a dry month, with an average of just seven wet days during the month. Rainfall was confined to a small number of events, accompanied by dry conditions between them. The highest daily rainfall total of 21.3mm was recorded at Hams Hill Raingauge in the Nort West Grain hydrological area in the second week of the month. Over the last 3 months, catchments in the west and central regions received exceptionally low rainfall, whilst the rest in the east saw notably low rainfall for the time of year, making this period the fourth driest three-

month period since records began in 1871. Over the past 6 months, rainfall across the KSLES area was exceptionally low in all catchments, except Dover Chalk which saw notably low rainfall, making this period the second driest six-month period since records began in 1871. Over the past 12 months, rainfall received was normal in most southern catchments in KSL area, with catchments in the north receiving below normal rainfall.

1.2 Soil moisture deficit and recharge

SMDs continued to rise across the KSLES area. Effective rainfall was 58% of the LTA in September, which, compounded with previous dry months, was insufficient to stabilise or reduce deficits. By month end, KSLES had a SMD of 197mm, increasing from 178mm in August. All hydrological areas recorded SMDs exceeding 160mm. In most areas, SMD was over 75mm higher than the LTA at the end of September.

1.3 River flows

Daily mean river flows generally increased throughout September. Flow monitoring sites in the KSLES area recorded mean flows ranging from notably low to normal. Flows at the Teise at Stonebridge and Dour at Crabble remained normal for the time of year. 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. Flows recorded in flashy rivers that are highly responsive to rainfall increased from exceptionally low to notably low. These are the Ravensbourne at Catford, Mole at Dorking, Eden at Vexour/Penshurst and Rother at Udiam. Flows at the Wandle at Connolly's Mill and Stour at Horton rose from notably low to below normal, while the East Stour at South Willesborough remained notably low, and the Darent at Hawley remained below normal. However, flows at both sites did increase.

1.4 Groundwater levels

Groundwater levels continued to decline seasonally across KSLES during September in response to the prolonged period of below normal rainfall. However, the rate of decline was generally less steep, and classifications remained largely the same as in August 2026. Sites monitoring groundwater in the Chalk aquifer recorded normal, below normal, and exceptionally low levels. The only sites recording levels below the normal range were Sweeps Land and Chipstead, both located in the western part of the KSLES area, with Chipstead experiencing a sharp decline from below normal to exceptionally low. Levels at Little Bucket, Riddles Lane, Fleete Reservoir, and Wolverton remained in the normal range. In the Lower Greensand aquifer, levels at Riverhead remained normal.

1.5 Reservoir stocks

Reservoir storage continued to decline throughout September, except for a marginal increase at Powdermill. By the end of the month, reservoirs in the KSLES area held the following live storage capacities and banding categories:

- Bewl – 49% below normal
- Bough Beech – 50% below normal
- Darwell – 34% notably low
- Powdermill – 32% notably low
- Weir Wood – 82% normal

Weir Wood reservoir remains offline.

1.6 Environmental impact

Hands-off flow (HoF) restrictions continued to affect a number of catchments during September, although improving river flows at the start of the month allowed several restrictions in the Medway, North Kent, Stour and Rother catchments to be briefly lifted. Flow conditions subsequently deteriorated again later in the month, resulting in some restrictions being reintroduced during the final week of September. By month-end, widespread HoF restrictions remained in force across parts of the Medway, Stour, Rother, North Kent and Darent catchments.

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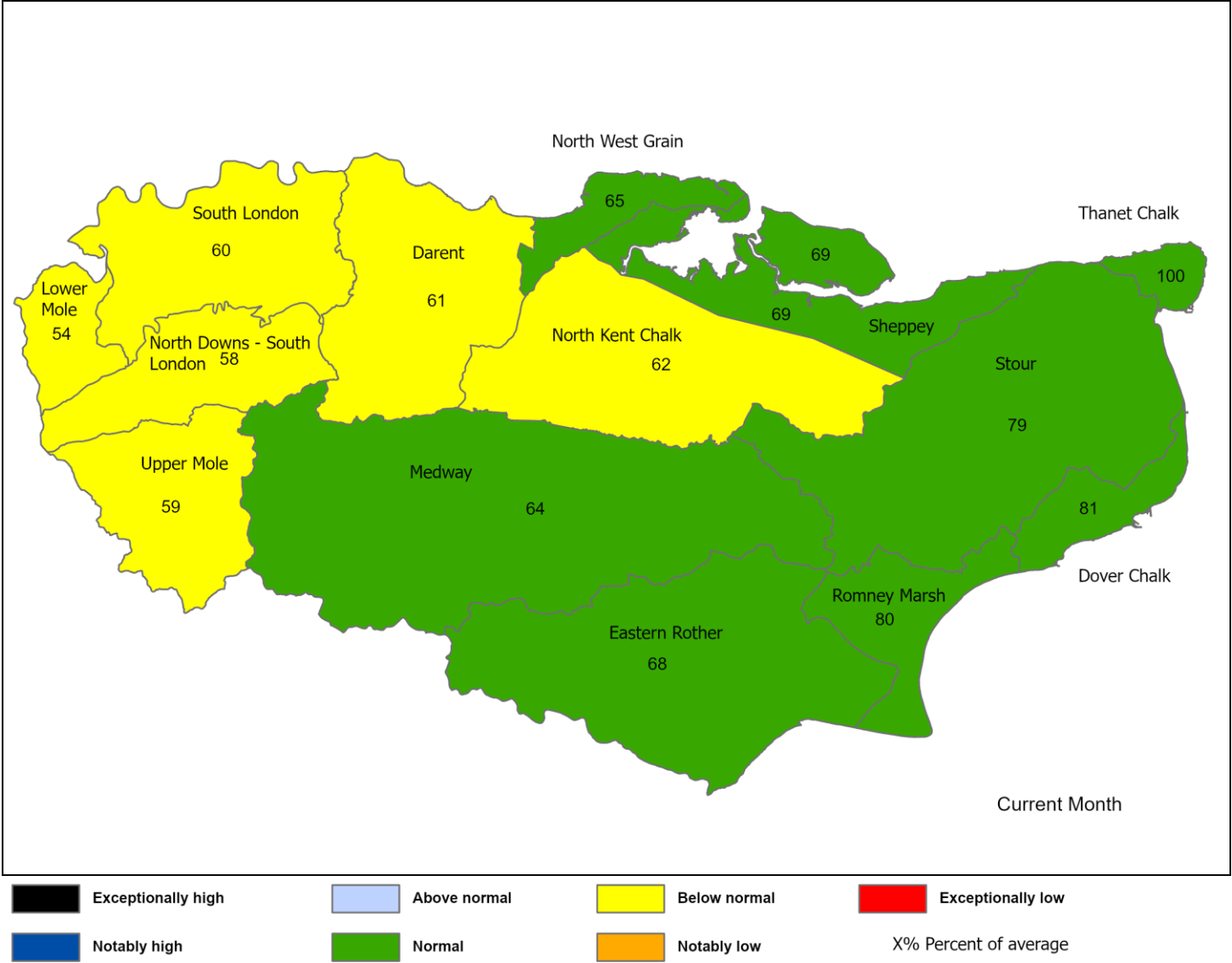
Contact Details: 03708 506 506

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2 Rainfall

2.1 Rainfall map one

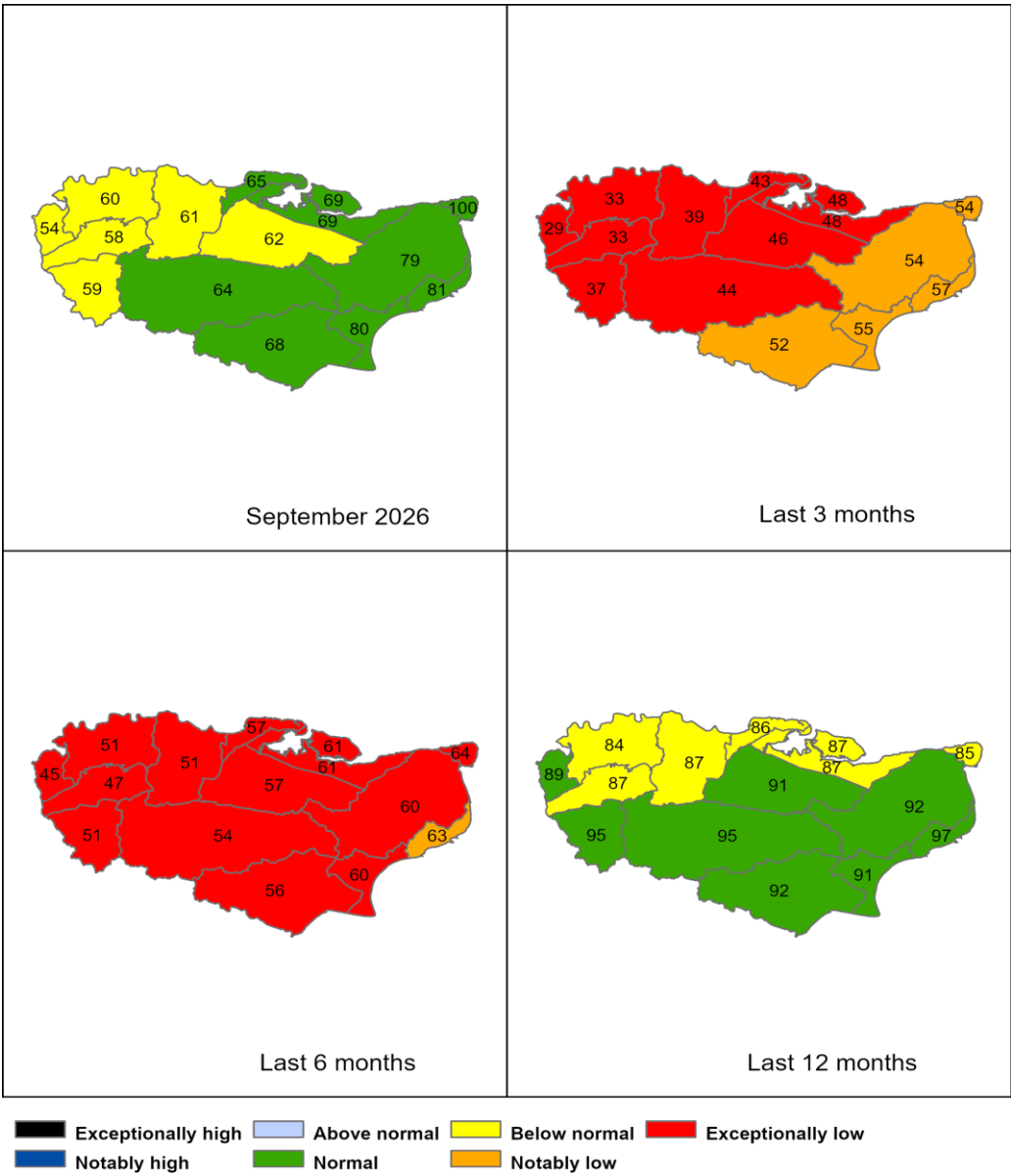
Figure 2.1: Total rainfall for hydrological areas across Kent and South London for the current month (up to 30 September 2026), classed relative of historic totals. The percentage of average uses the period of 1991 – 2020. Table available in the appendices with more detailed information.



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, 100024198, 2026).

2.2 Rainfall map two

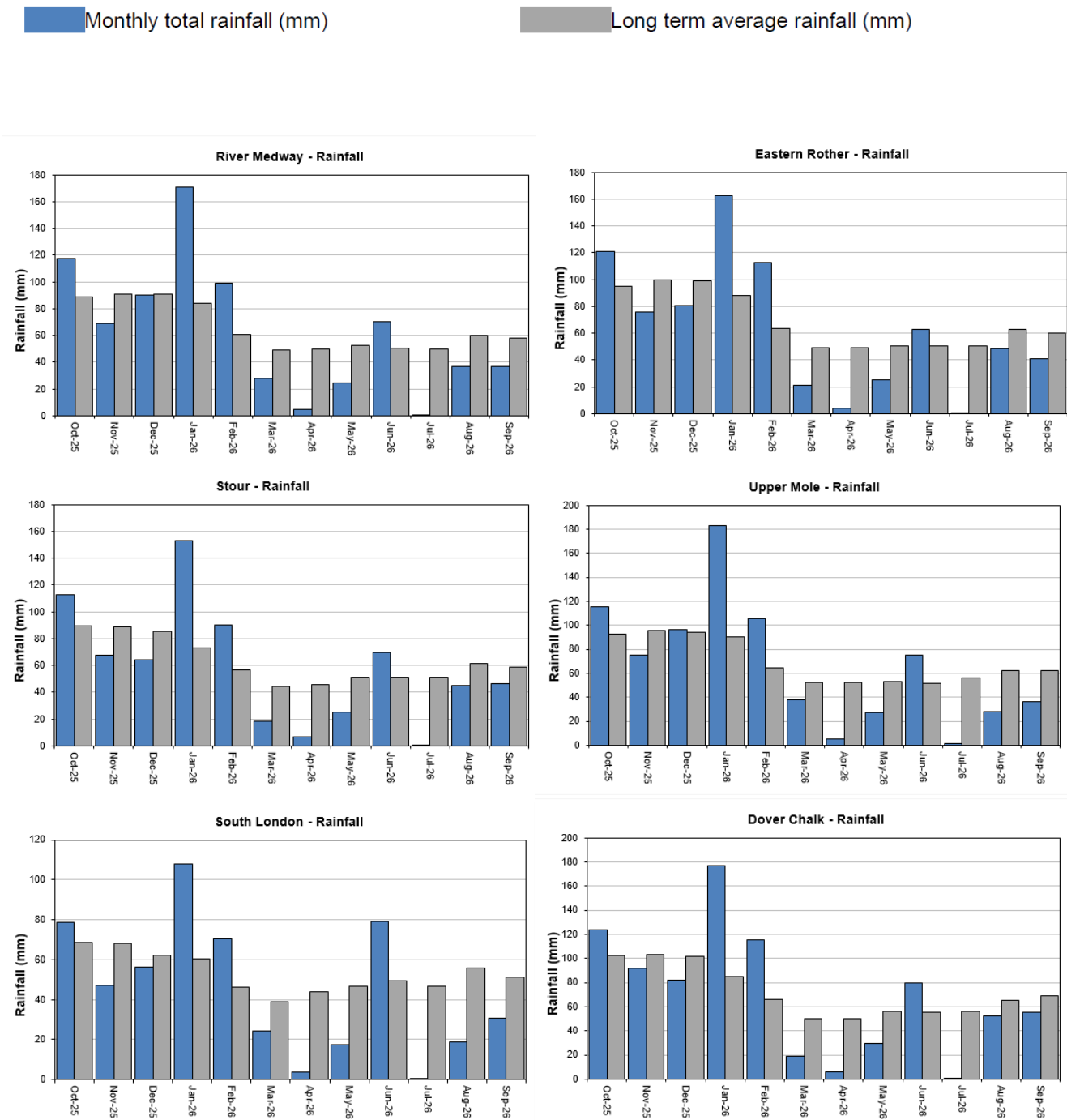
Figure 2.2: Total rainfall for hydrological areas for the current month (up to 30 September 2026), the last 3 months, the last 6 months, and the last 12 months,), classed relative of historic totals. The percentage of average uses the period of 1991 – 2020. Table available in the appendices with detailed information.

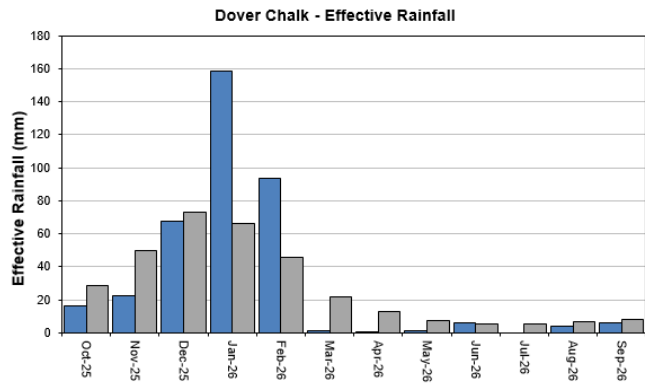
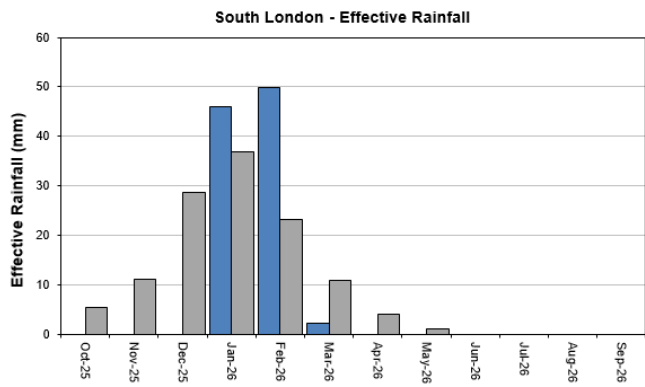
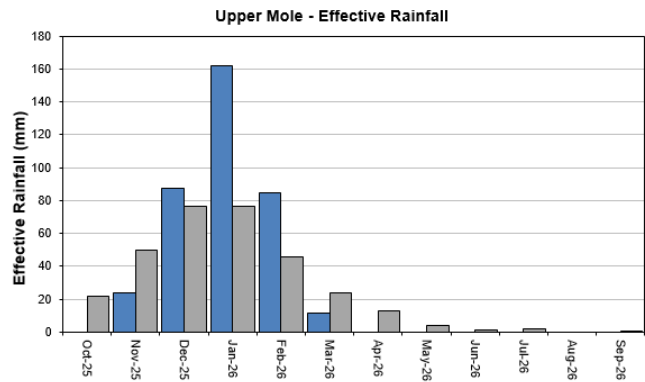
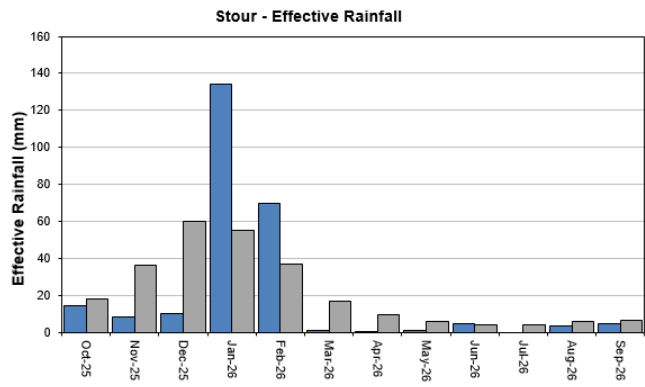
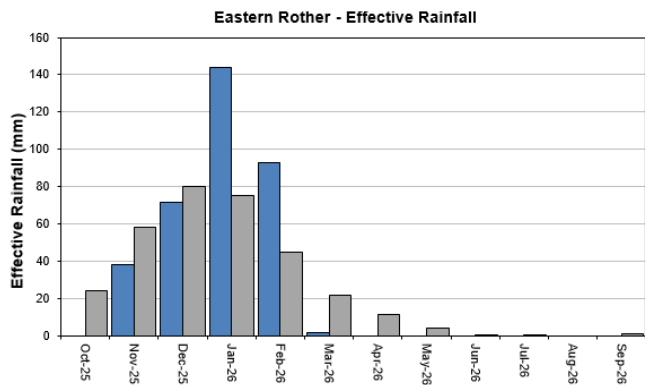
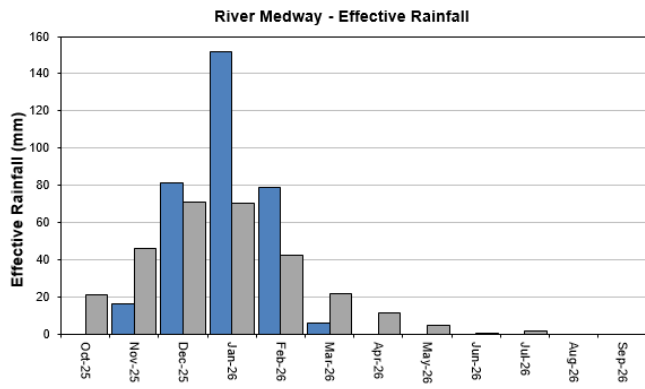


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, 100024198, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived 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 long term average (LTA) for a selection of areal units. HadUK rainfall data. (Source: Met Office. Crown copyright, 2026). EA effective rainfall data (Source EA Soil Moisture Model).





2.4 Rainfall and effective rainfall table

Figure 2.4: This is a second estimate of areal rainfall and effective rainfall (percolation or runoff) for a selection of the hydrological areas across the Kent and South London 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.

Number	Hydrological Area	Rainfall (mm) 30 day Total	September % LTA	Effective Rainfall (mm) 30 day total	September % LTA
6230TH	North Downs - South London	35	57%	3	43%
6505TH	Upper Mole	37	59%	0	0%
6508TH	South London	31	60%	0	-
6706So	Darent	33	60%	3	46%
6707So	North Kent Chalk	35	61%	3	47%
6708So	Stour	46	79%	5	71%
6709So	Dover Chalk	56	81%	6	72%
6710So	Thanet Chalk	48	100%	4	92%
6809So	Medway	37	63%	0	-
6810So	Eastern Rother	41	67%	0	0%
6811So	Romney Marsh	43	79%	0	0%

Number	Hydrological Area	Rainfall (mm) 30 day Total	September % LTA	Effective Rainfall (mm) 30 day total	September % LTA
6812So	North West Grain	31	64%	0	-
6813So	Sheppey	35	68%	0	-
	Kent, South London & East Sussex Average	39	69%	2	58%

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

EA effective rainfall data (Source EA Soil Moisture Model)

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 Kent and South London 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 30/09/2026

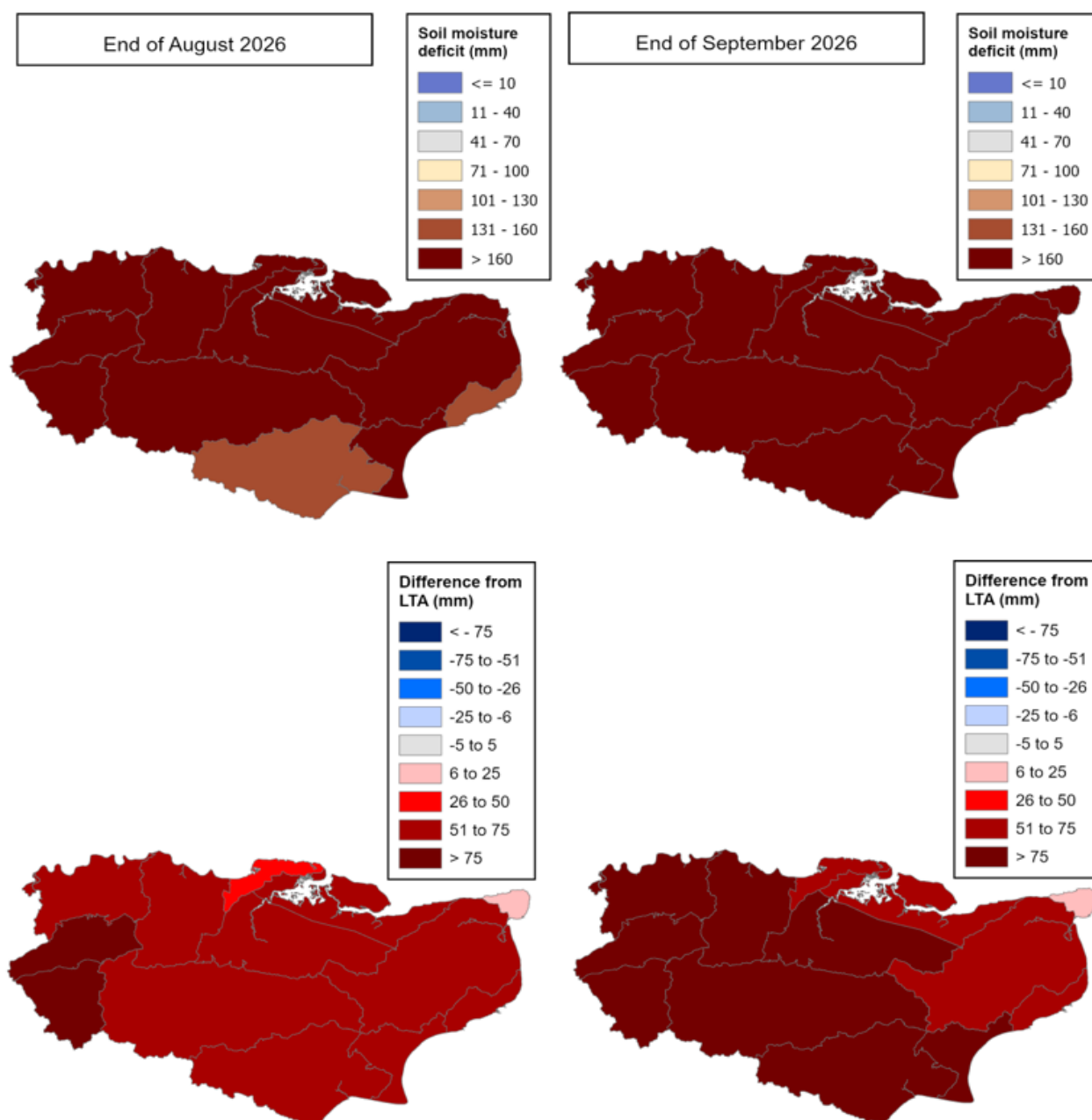
Number	Hydrological Area	Seasonal Rainfall (mm) Total	% LTA	Seasonal Effective Rainfall (mm) Total	% LTA
6230TH	North Downs - South London	161	47%	11	24%
6505TH	Upper Mole	174	51%	0	0%
6508TH	South London	150	51%	0	0%
6706So	Darent	155	50%	10	30%
6707So	North Kent Chalk	177	57%	12	32%
6708So	Stour	193	60%	13	36%
6709So	Dover Chalk	222	63%	18	39%
6710So	Thanet Chalk	179	64%	11	44%
6809So	Medway	172	54%	0	0%
6810So	Eastern Rother	182	56%	0	0%

Number	Hydrological Area	Seasonal Rainfall (mm) Total	% LTA	Seasonal Effective Rainfall (mm) Total	% LTA
6811So	Romney Marsh	176	60%	0	0%
6812So	North West Grain	149	57%	0	0%
6813So	Sheppey	164	60%	0	0%
	Kent, South London & East Sussex Average	173	56%	6	25%

3 Soil moisture deficit

3.1 Soil moisture deficit map

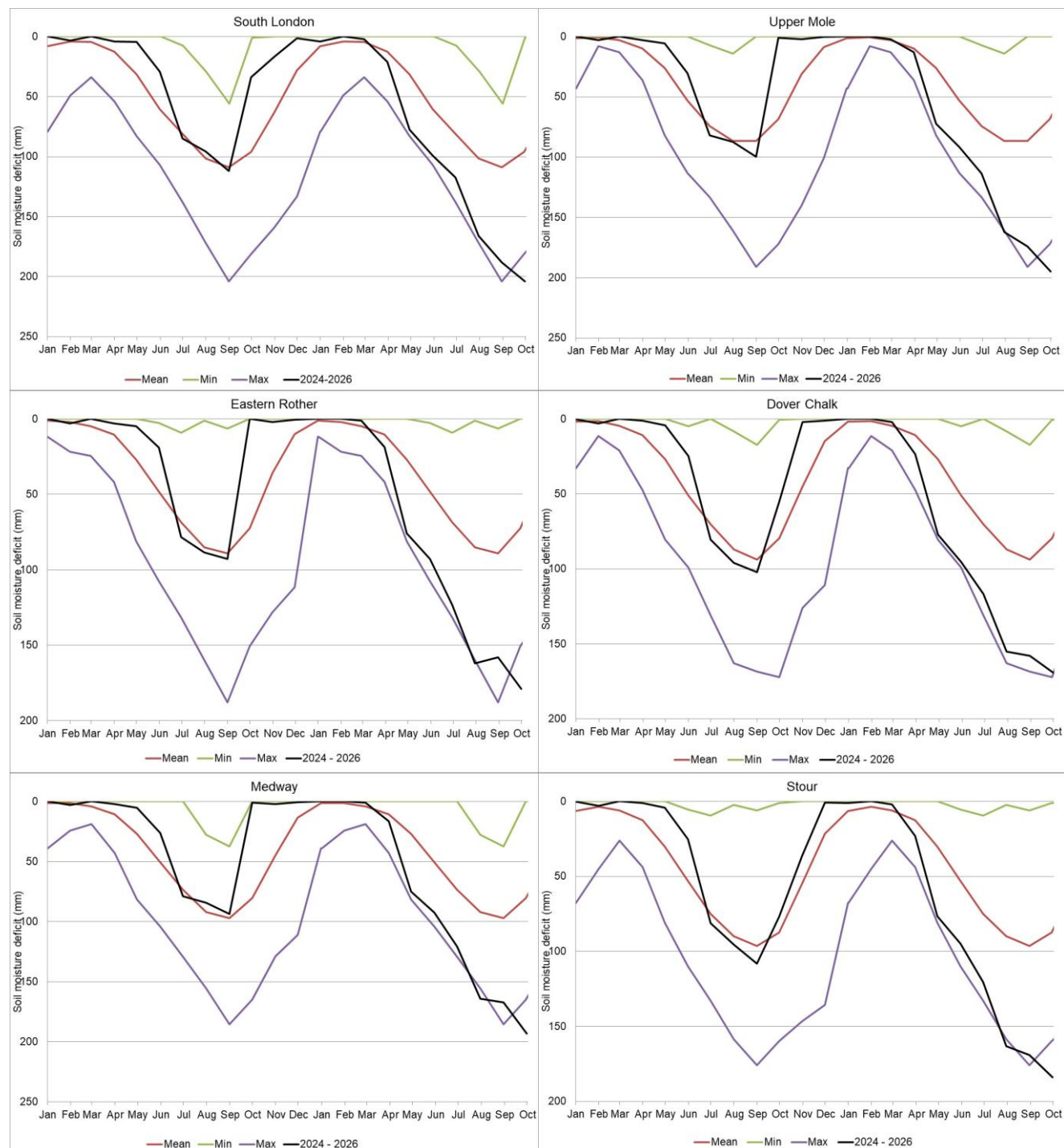
Figure 3.1: Soil moisture deficits for weeks ending 31 August (left panel) and 30 September 2026 (right panel). Top row shows actual soil moisture deficits (mm) and bottom row shows the difference (mm) of the actual from the 1991 to 2020 long term average soil moisture deficits. EA Soil Moisture Deficit data (Source EA Soil Moisture Model).



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



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

3.3 Soil moisture deficit table

Figure 3.3: This is a second estimate of soil moisture deficit for the hydrological areas across the Kent and South London area. There may be significant variation within each area which must be considered when interpreting these data.

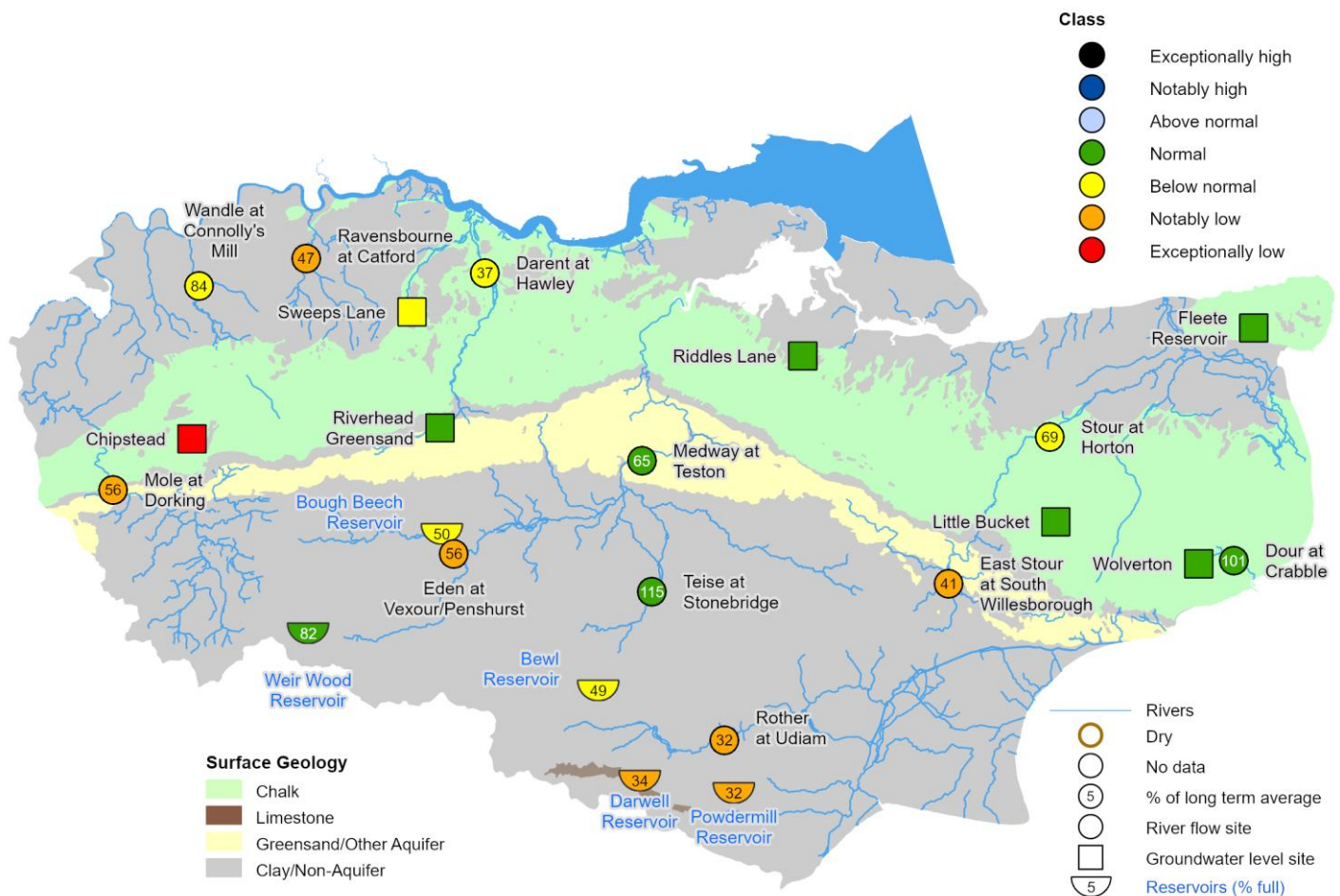
Number	Hydrological Area	SMD (mm) Day 30	End September LTA
6230TH	North Downs - South London (W)	203	102
6505TH	Upper Mole	195	94
6508TH	South London	204	121
6706So	Darent	206	117
6707So	North Kent Chalk	197	112
6708So	Stour	184	109
6709So	Dover Chalk	169	103
6710So	Thanet Chalk	229	221
6809So	Medway	193	96
6810So	Eastern Rother	179	92
6811So	Romney Marsh	183	104
6812So	North West Grain	211	148
6813So	Sheppey	205	136
	Kent & South London Average	197	120

EA soil moisture deficit data (Source EA Soil Moisture Model).

4 River flows, groundwater levels and reservoir stocks

4.1 River flows, groundwater levels and reservoir stocks map

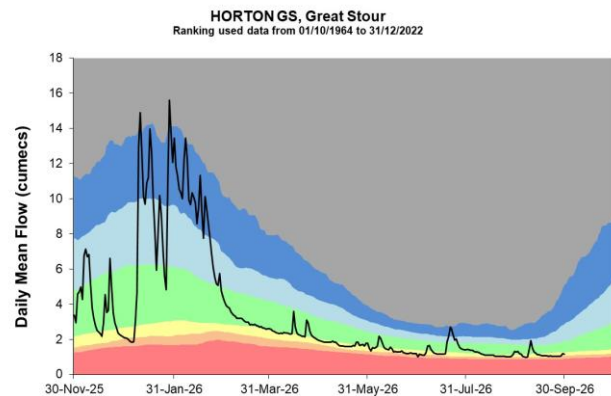
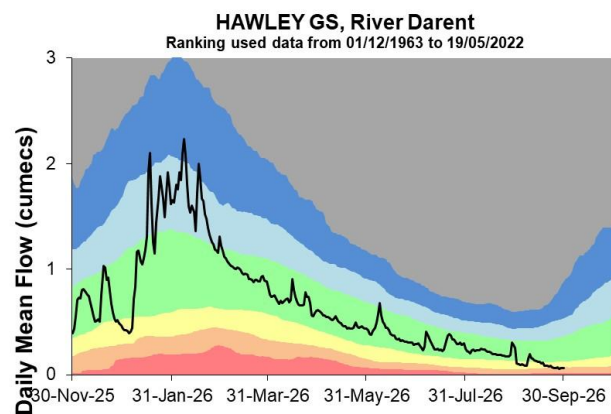
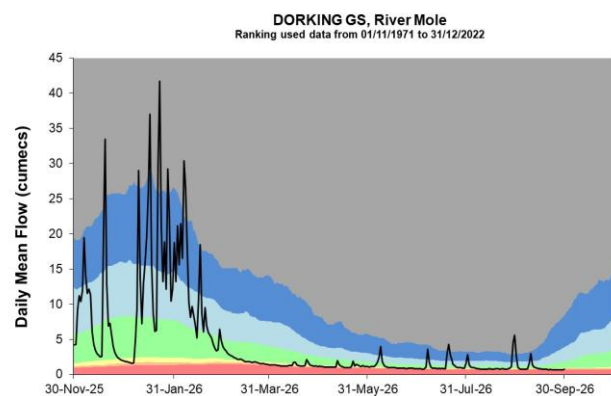
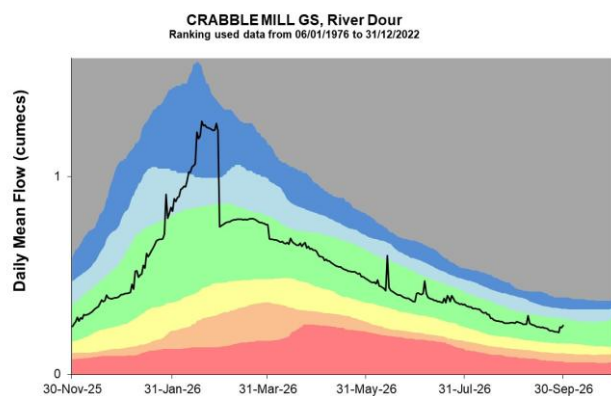
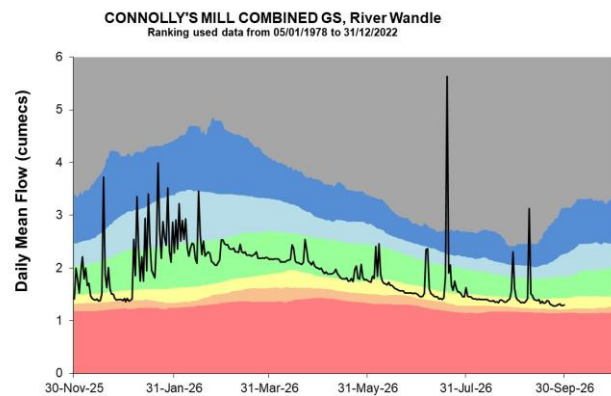
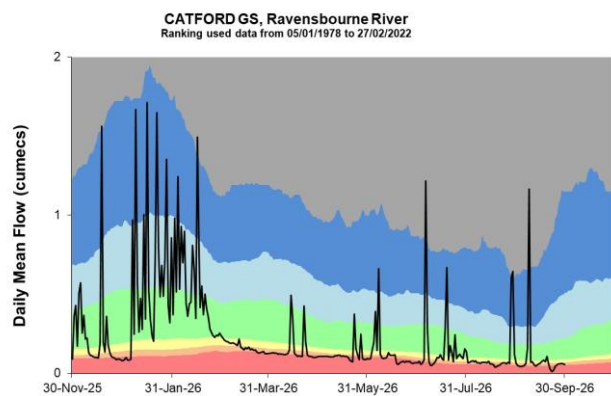
Figure 4.1: Monthly mean river flows* for indicator sites for September 2026, expressed as a percentage of the respective long term average (period 1992 – 2020) and classed relative to an analysis of historic September monthly means. *Flows at gauging stations in the Medway catchment might be affected by upstream reservoir releases. End of month groundwater levels for indicator sites for September 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic September levels. Tables available in the appendices with detailed information. End of month levels for reservoirs** for September 2026, expressed as percent full. **Weirwood Reservoir is currently offline (Source: Water Companies).

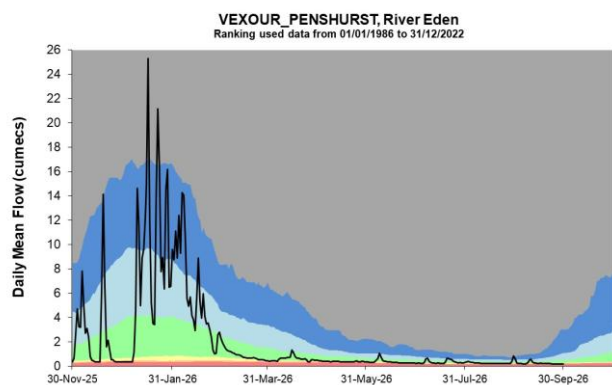
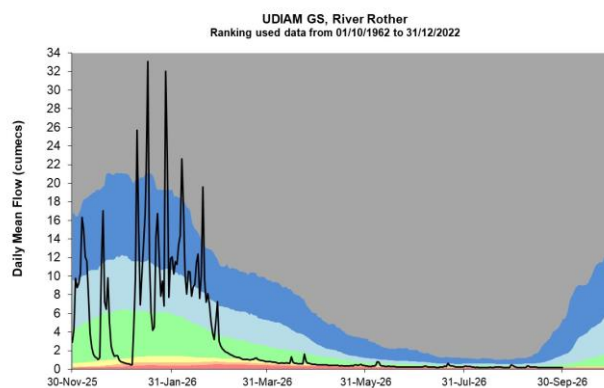
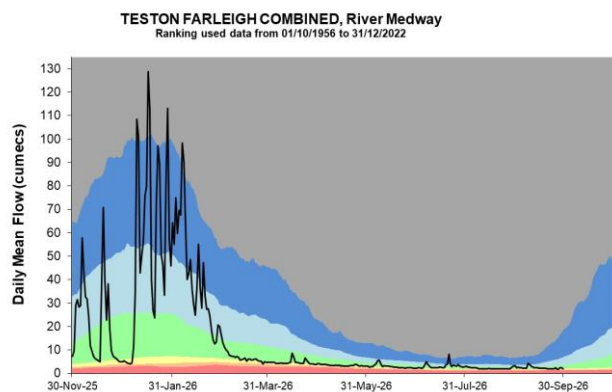
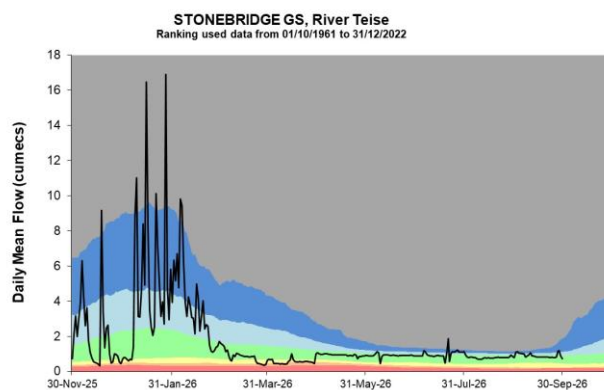
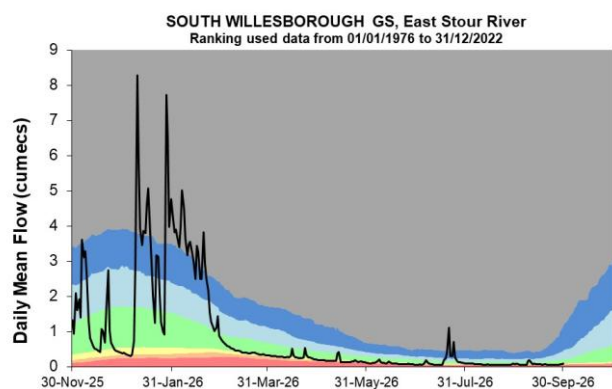


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4.2 River flow charts

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



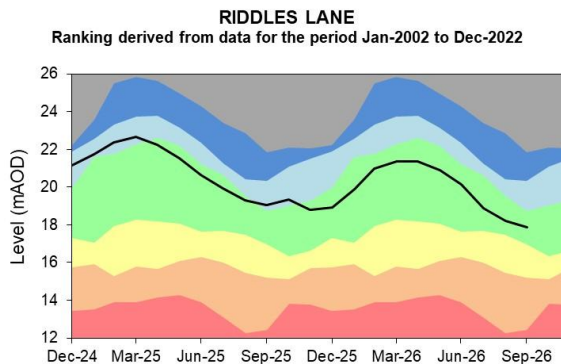
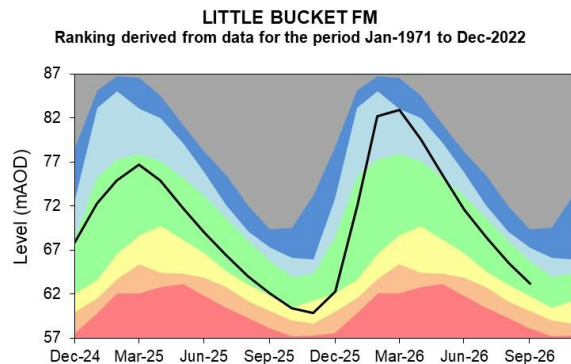
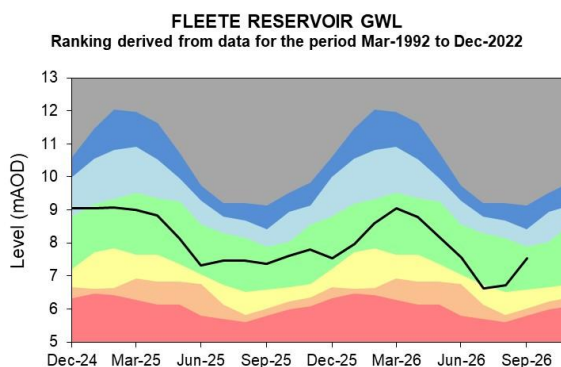
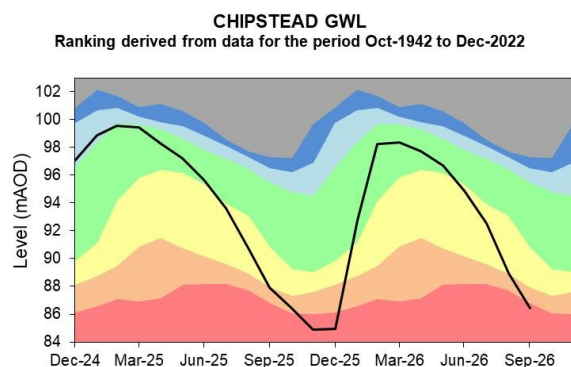
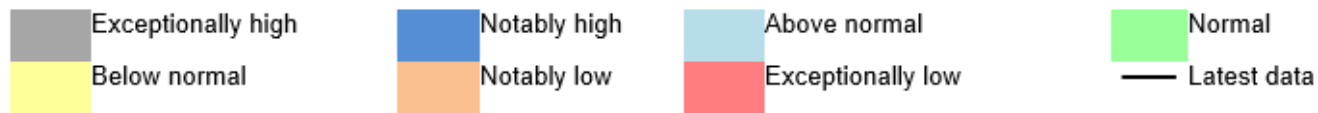


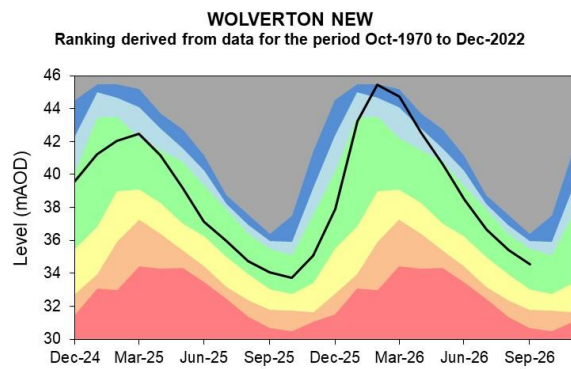
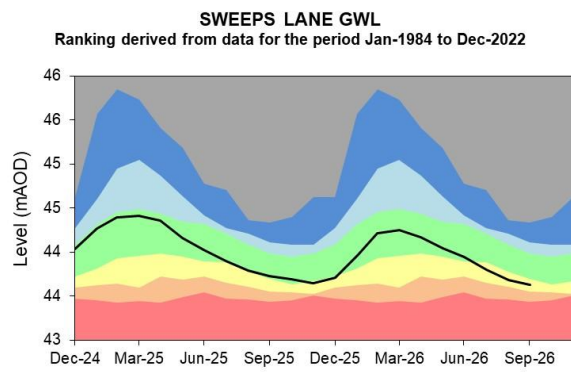
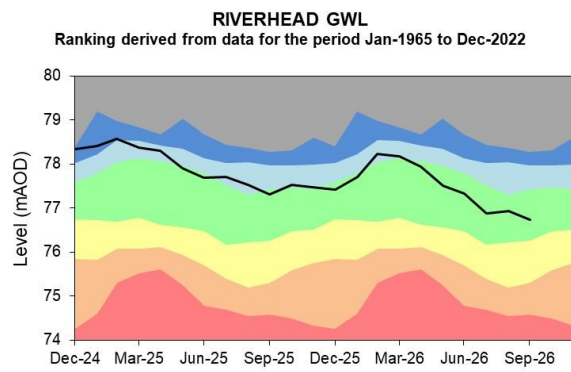
Source: Environment Agency.

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 levels and long term maximum and minimum levels.



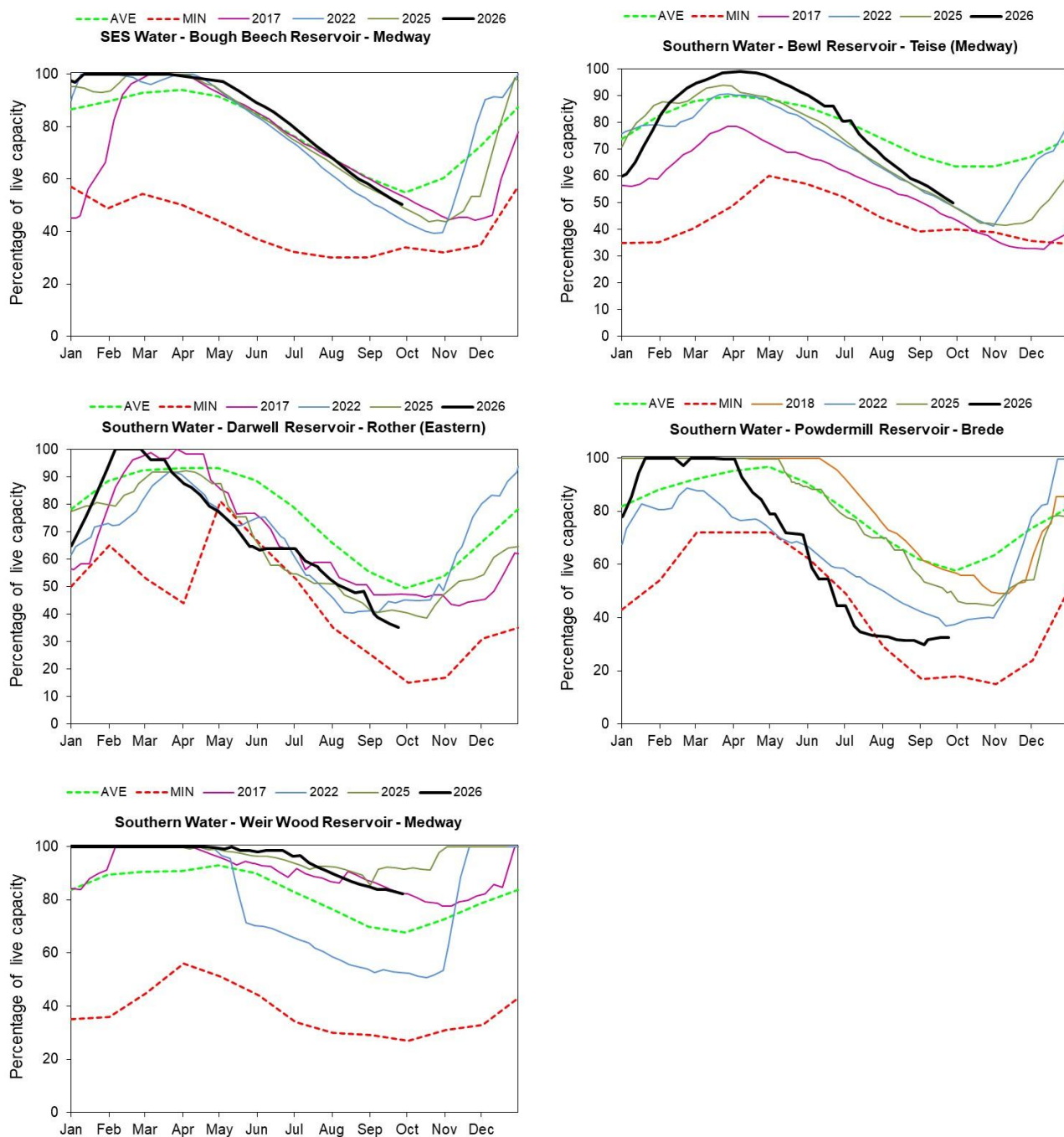


Source: Environment Agency, 2026.

6 Reservoir stocks

6.1 Reservoir stocks charts

Figure 7.1: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. (Source: Water Companies). Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.



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^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).

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	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
North Downs - South London	58	Below Normal	Exceptionally low	Exceptionally low	Below normal
Upper Mole	59	Below Normal	Exceptionally low	Exceptionally low	Normal
South London	60	Below Normal	Exceptionally low	Exceptionally low	Below normal
River Darent	61	Below Normal	Exceptionally low	Exceptionally low	Below normal
North Kent Chalk	62	Below Normal	Exceptionally low	Exceptionally low	Normal
Stour	79	Normal	Notably low	Exceptionally low	Normal
Dover Chalk	81	Normal	Notably low	Notably low	Normal
Thanet Chalk	100	Normal	Notably low	Exceptionally low	Below normal
River Medway	64	Normal	Exceptionally low	Exceptionally low	Normal
Eastern Rother	68	Normal	Notably 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
Romney Marsh	80	Normal	Notably low	Exceptionally low	Normal
North West Grain	65	Normal	Exceptionally low	Exceptionally low	Below normal
Sheppy	69	Normal	Exceptionally low	Exceptionally low	Below normal

8.2 River flows table

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

8.3 Groundwater table

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