Monthly water situation report: Kent and South London Area

1 Summary - October 2026

October saw a return to wetter conditions across the Kent, South London and East Sussex area (KSLES), with above average rainfall recorded for the first time since June. The increased rainfall reduced soil moisture deficits (SMD) and resulted in improved monthly mean flows (MMF) across much of the area. However, the effects of the prolonged dry period earlier in the year remained evident, with soil moisture deficits still above average, some river flow sites remaining below normal, groundwater levels showing limited response, and most reservoirs falling to within the notably low banding. Consequently, despite improvements during October, hydrological recovery across the area remains ongoing.

1.1 Rainfall

During October, the KSLES area received 97mm of rainfall, 117% of the long-term average (LTA). This is the first time above average rainfall has been received since June. Rainfall received across the catchment ranged from normal in the west to above normal in the east. The lower mole in the west at the edge of the catchment was an exception and fell in the above normal banding. Across the catchment rainfall totals ranged from 102% of the LTA in north west Grain hydrological area, to 133% of the LTA in the Dover Chalk hydrological area.

October marked a return to wetter conditions, with all 31 days classified as wet days, each recording at least 0.2mm of rainfall. Rainfall totals were boosted by the passage of storm Austen and 23 October and Storm Boelo on 24-25 October, which brought periods of heavy rain and unsettled conditions across the UK. The highest daily rainfall total of 39.5mm was recorded at Pease Pottage Rain Gauge in the Upper Mole hydrological areas on the 22 October. The next highest daily rainfall totals were on 18, 24, 7 and 21 October. Despite the wetter conditions experienced in October, the 8-month period ending October 2026 was the 5th driest on record for the KSL area, with only 297mm of rainfall received, equivalent to 67% of the LTA.

1.2 Soil moisture deficit and recharge

SMDs decreased across the area during October in response to increased rainfall during the month. At the end of September, SMDs exceeded 160mm across almost the entire area, whereas by the end of October deficits had reduced to between 100 and 160mm across most

of the area. Despite this improvement, SMDs remained above the LTA throughout the area, indicating that soils were still drier than would typically be expected for the time of year. Further prolonged rainfall will be required to reduce soil moisture deficits before significant groundwater recharge can occur during the winter recharge season.

1.3 River flows

MMF's increased during October due to the increased rainfall received in October and contributed to a decrease in SMD as mentioned above. However, some sites remain influenced by the prolonged dry conditions experienced this year. Therefore, while most monitoring sites recorded normal MMF's for the time of year, several sites remained below normal, indicating hydrological recovery is still ongoing. The below normal sites were predominantly located in catchments underlain by clay and non-aquifer geology, which typically respond more rapidly to rainfall and dry weather conditions. In contrast, most sites within the Chalk-dominated catchments recorded normal flows, reflecting the greater influence of groundwater contributions to river flow.

1.4 Groundwater levels

Groundwater levels continued to decline seasonally across the KSLES area during October, although the increased rainfall received during the month appears to have slowed the rate of decline at several sites. Groundwater classifications remained unchanged from September, with sites monitoring the Chalk aquifer recording normal, below normal and exceptionally low levels. Sweeps Lane and Chipstead, located in the western part of the KSLES area, remained below normal and exceptionally low respectively, with groundwater levels at Chipstead at their lowest since 2012, while Little Bucket, Riddles Lane, Fleete Reservoir and Wolverton remained within the normal range. Groundwater levels in the Lower Greensand aquifer at Riverhead also remained normal. Although conditions improved during the month, groundwater levels remain influenced by the prolonged dry conditions experienced earlier in the year, and there is currently little evidence of significant groundwater recharge.

1.5 Reservoir stocks

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

- Bewl – 41% Notably low
- Bough Beech – 42% Notably low
- Darwell – 31% Notably low
- Powdermill – 33% 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 throughout October, with many of the restrictions in place at the end of September persisting for much of the month. Towards the end of October, improved river flows following increased rainfall allowed most restrictions in the Rother, Darent and Wye catchments to be lifted, along with some of the widespread restrictions affecting the Medway catchment.

One fluvial flood alert was issued across the KSLES area on 23 October

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

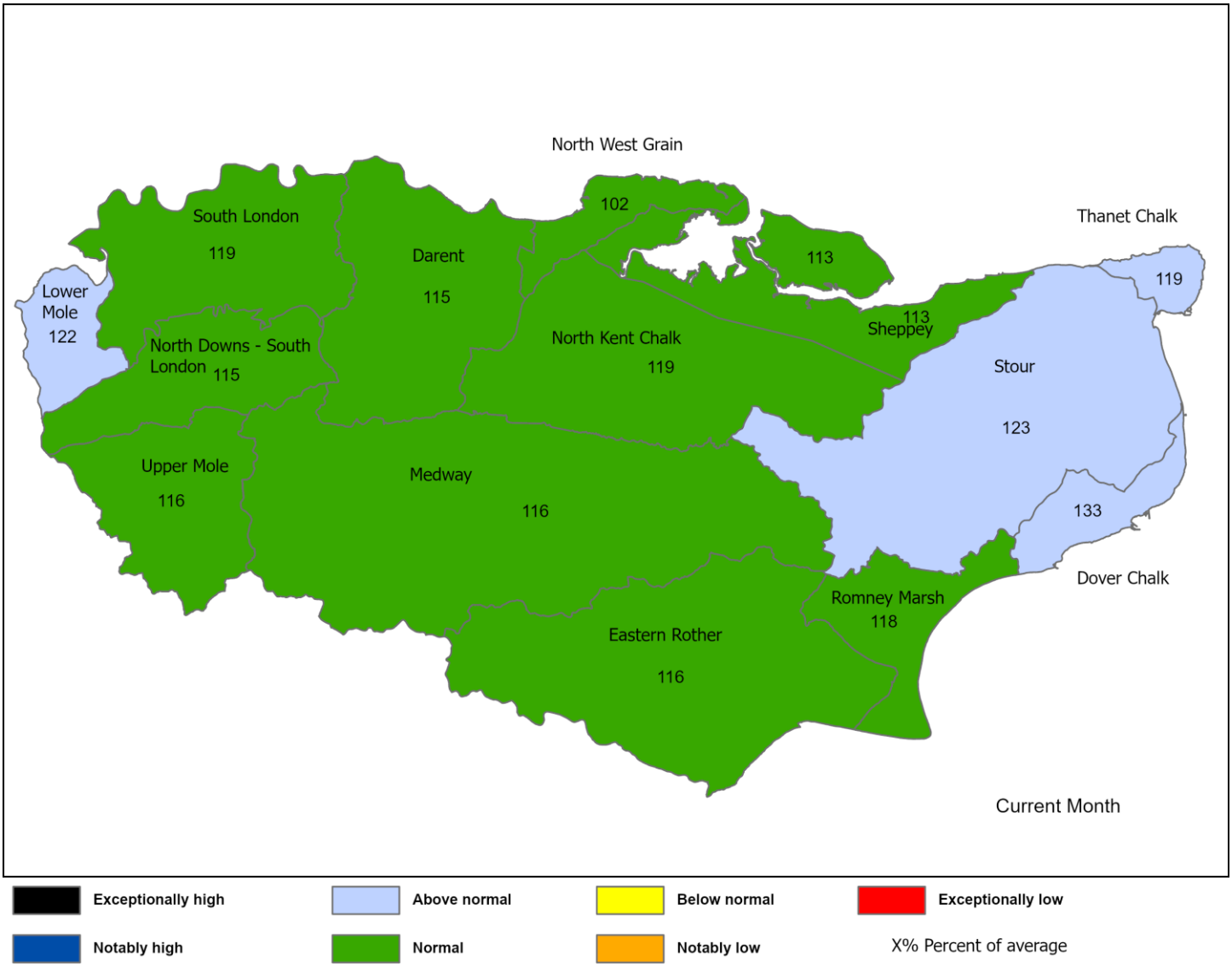
Contact Details: 03708 506 506

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2 Rainfall

2.1 Rainfall map one

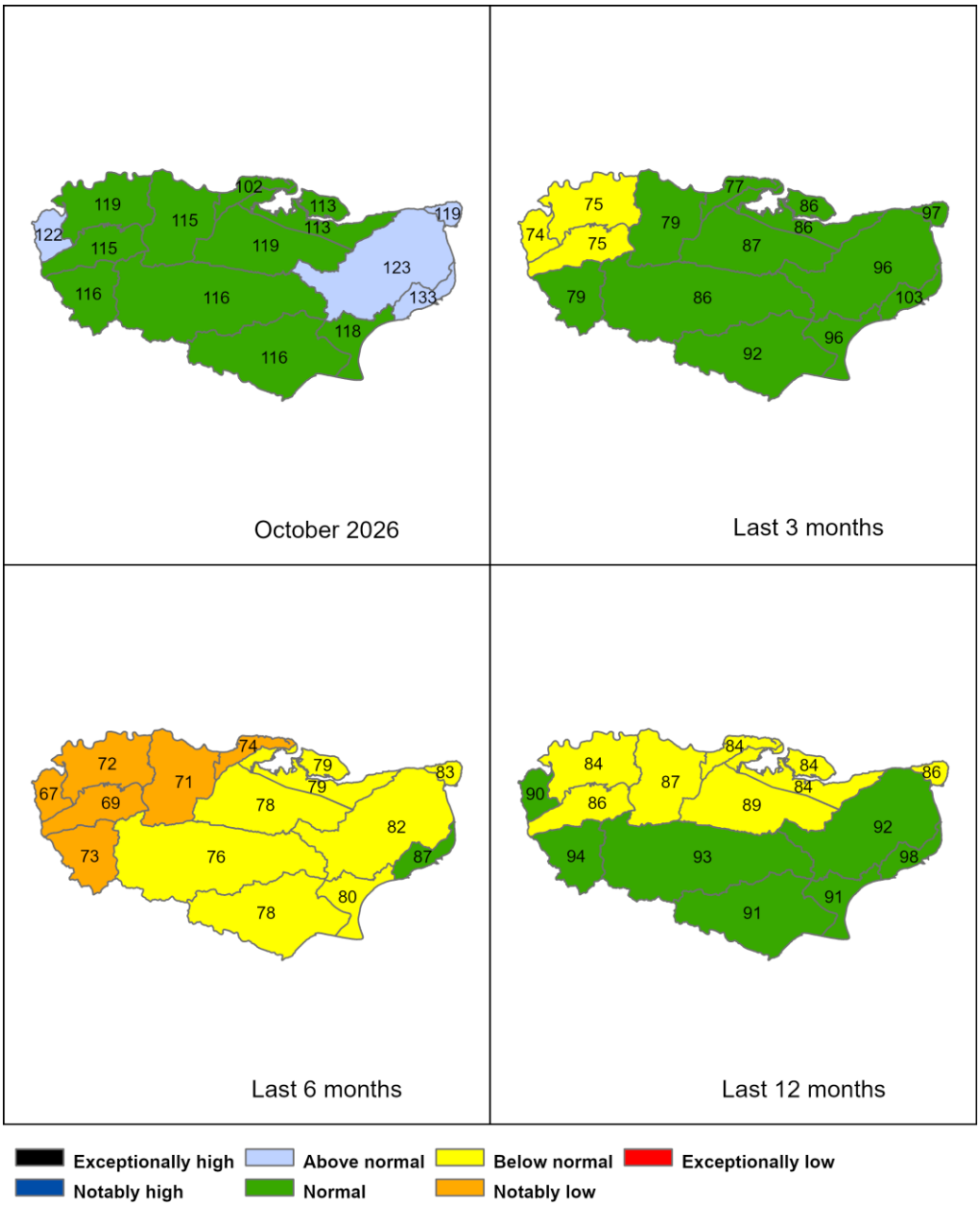
Figure 2.1: Total rainfall for hydrological areas across Kent and South London for the current month (up to 31 October 2026), classed relative of historic totals. The percentage of average uses the period of 1991 – 2020. Table available in the appendices with more detailed information.



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

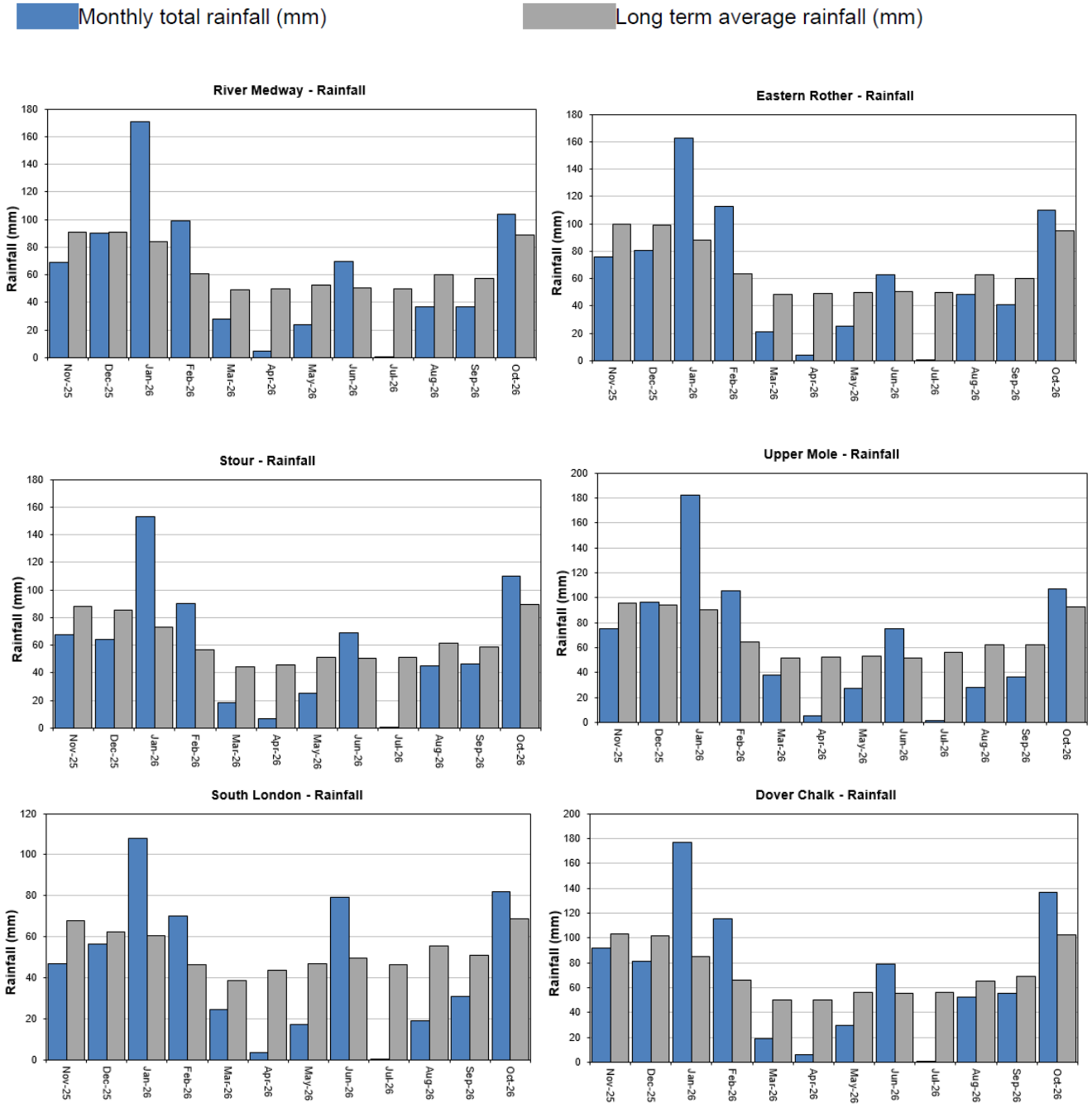
Figure 2.2: Total rainfall for hydrological areas for the current month (up to 31 October 2026), the last 3 months, the last 6 months, and the last 12 months,), classed relative of historic totals. The percentage of average uses the period of 1991 – 2020. Table available in the appendices with detailed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

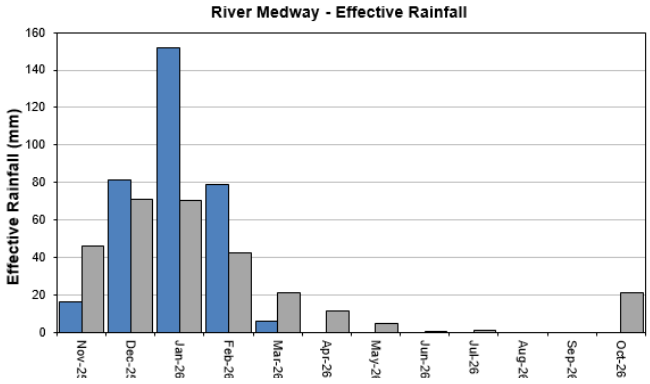


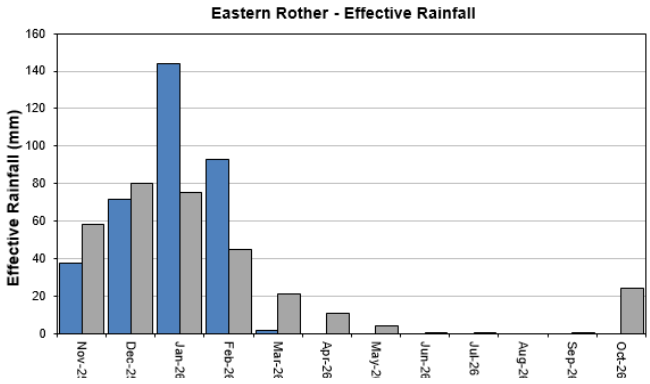
Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, 100024198, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2026).

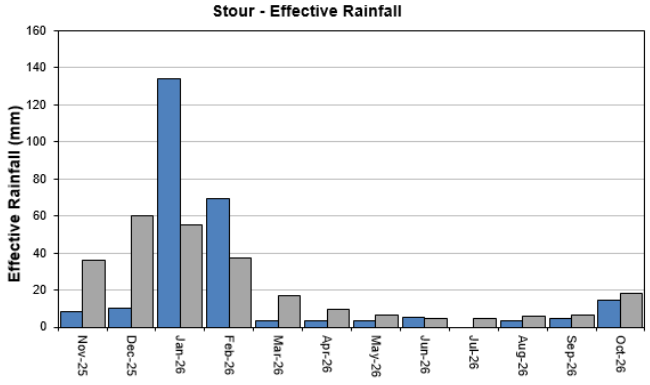
2.3 Rainfall and effective rainfall charts

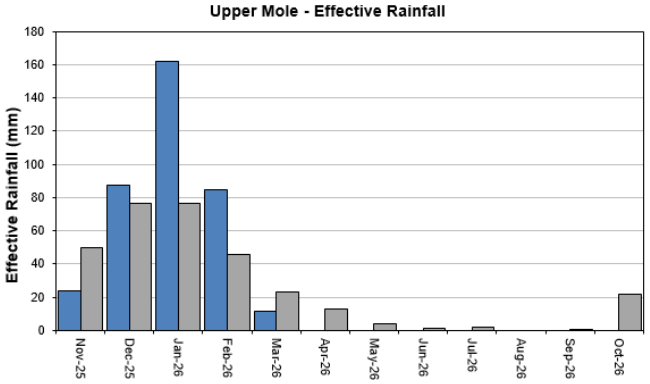
Figure 2.3: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average (LTA) for a selection of areal units. HadUK rainfall data. (Source: Met Office. Crown copyright, 2026). EA effective rainfall data (Source EA Soil Moisture Model).

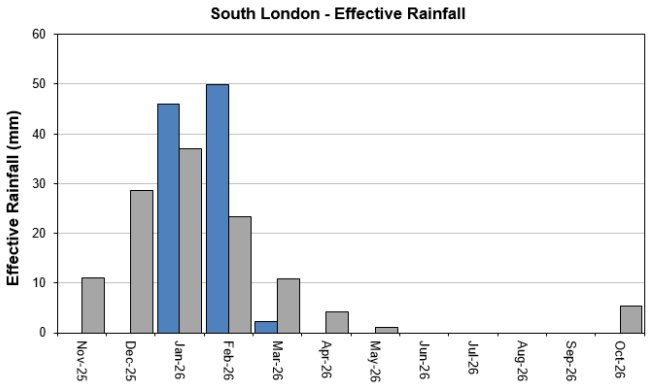


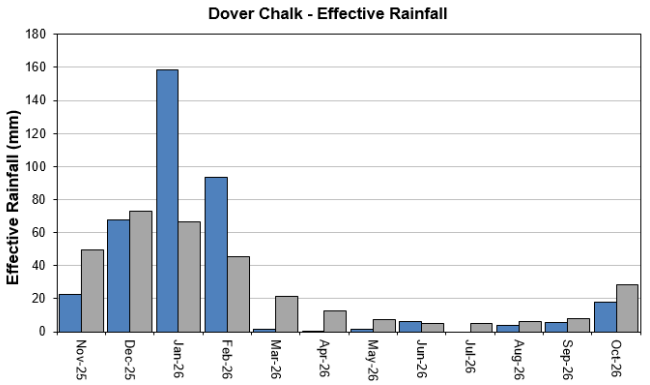

River Medway - Effective Rainfall
Effective Rainfall (mm)
0
20
40
60
80
100
120
140
160
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26


Eastern Rother - Effective Rainfall
Effective Rainfall (mm)
0
20
40
60
80
100
120
140
160
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26


Stour - Effective Rainfall
Effective Rainfall (mm)
0
20
40
60
80
100
120
140
160
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26


Upper Mole - Effective Rainfall
Effective Rainfall (mm)
0
20
40
60
80
100
120
140
160
180
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26


South London - Effective Rainfall
Effective Rainfall (mm)
0
10
20
30
40
50
60
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26


Dover Chalk - Effective Rainfall
Effective Rainfall (mm)
0
20
40
60
80
100
120
140
160
180
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26
Apr-26
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26

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) 31 day Total	October % LTA	Effective Rainfall (mm) 31 day total	October % LTA
6230TH	North Downs - South London	102	115%	13	55%
6505TH	Upper Mole	107	115%	0	0%
6508TH	South London	82	119%	0	0%
6706So	Darent	88	113%	11	71%
6707So	North Kent Chalk	98	119%	12	68%
6708So	Stour	110	123%	14	79%
6709So	Dover Chalk	136	131%	18	63%
6710So	Thanet Chalk	89	119%	11	122%
6809So	Medway	103	115%	0	0%
6810So	Eastern Rother	110	116%	0	0%

Number	Hydrological Area	Rainfall (mm) 31 day Total	October % LTA	Effective Rainfall (mm) 31 day total	October % LTA
6811So	Romney Marsh	97	118%	0	0%
6812So	North West Grain	66	101%	0	0%
6813So	Sheppey	75	112%	0	0%
	Kent, South London & East Sussex Average	97	117%	6	40%

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 01/10/2026 to 31/10/2026

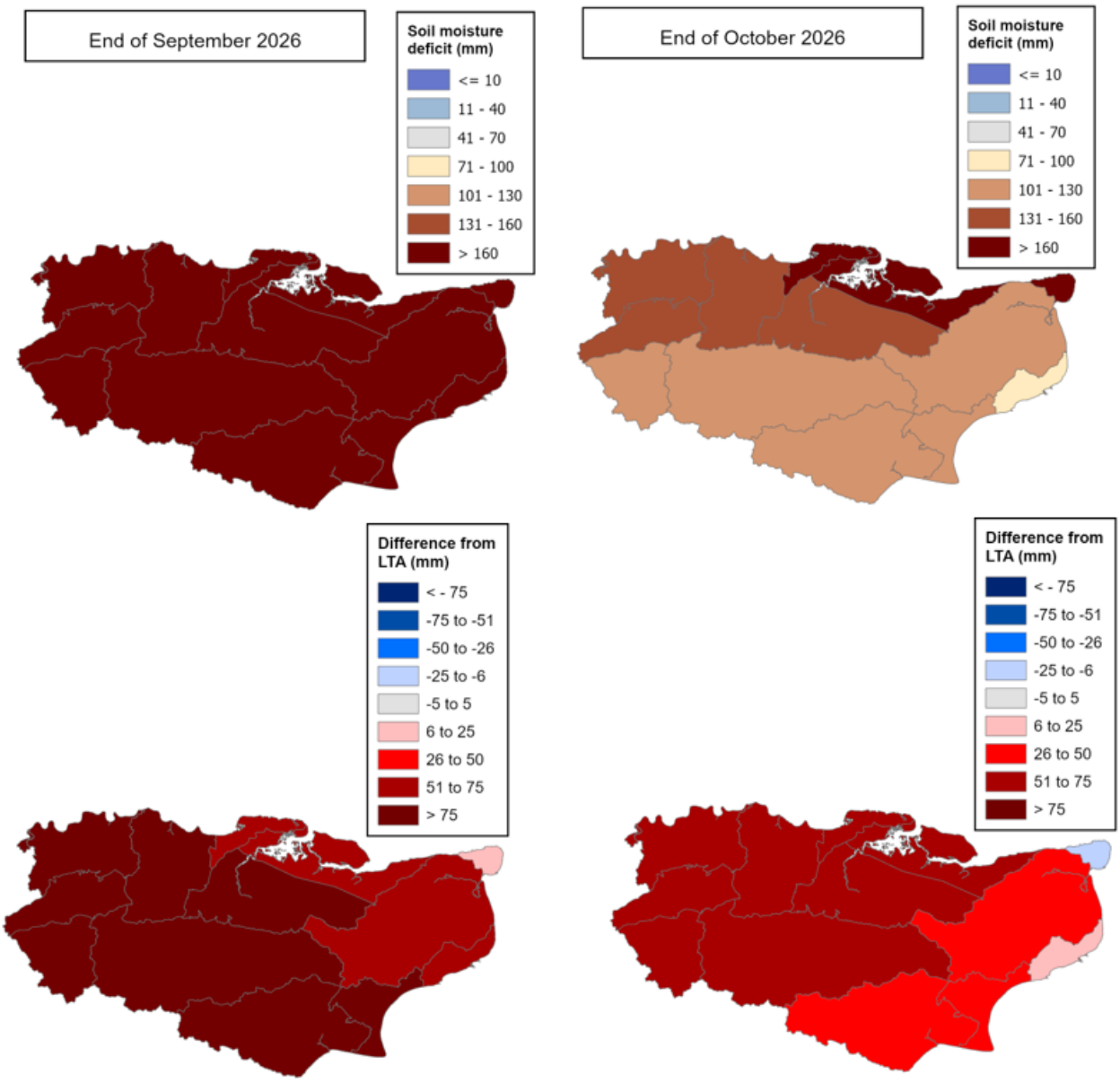
Number	Hydrological Area	Seasonal Rainfall (mm) Total	% LTA	Seasonal Effective Rainfall (mm) Total	% LTA
6230TH	North Downs - South London	102	115%	13	55%
6505TH	Upper Mole	107	115%	0	0%
6508TH	South London	82	119%	0	0%
6706So	Darent	88	113%	11	71%
6707So	North Kent Chalk	98	119%	12	68%
6708So	Stour	110	123%	14	80%
6709So	Dover Chalk	136	131%	18	63%
6710So	Thanet Chalk	89	119%	11	122%
6809So	Medway	103	115%	0	0%
6810So	Eastern Rother	110	116%	0	0%

Number	Hydrological Area	Seasonal Rainfall (mm) Total	% LTA	Seasonal Effective Rainfall (mm) Total	% LTA
6811So	Romney Marsh	97	118%	0	0%
6812So	North West Grain	66	101%	0	0%
6813So	Sheppey	75	112%	0	0%
	Kent, South London & East Sussex Average	97	117%	6	40%

3 Soil moisture deficit

3.1 Soil moisture deficit map

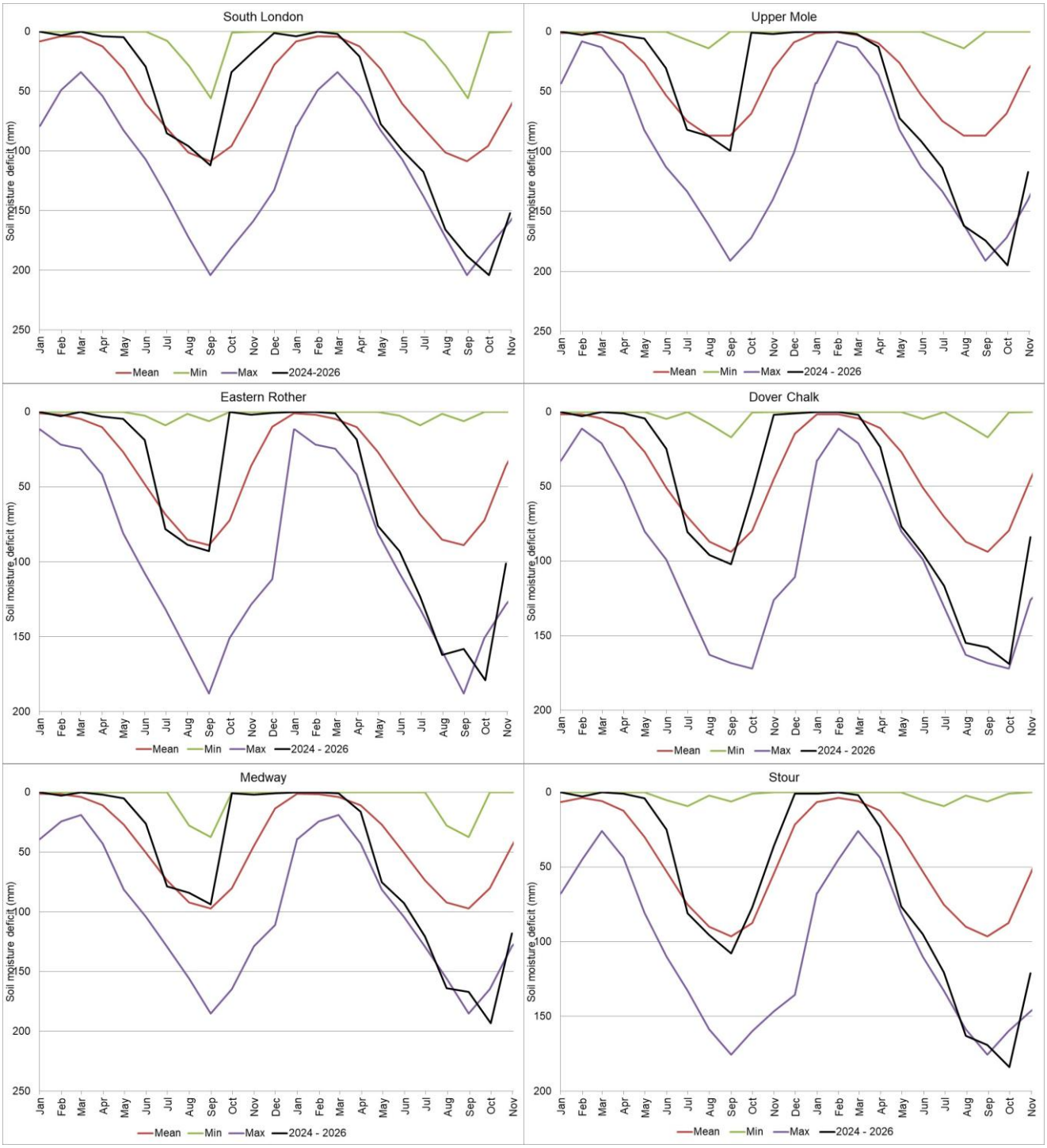
Figure 3.1: Soil moisture deficits for weeks ending 30 September (left panel) and 31 October 2026 (right panel). Top row shows actual soil moisture deficits (mm) and bottom row shows the difference (mm) of the actual from the 1991 to 2020 long term average soil moisture deficits. EA Soil Moisture Deficit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

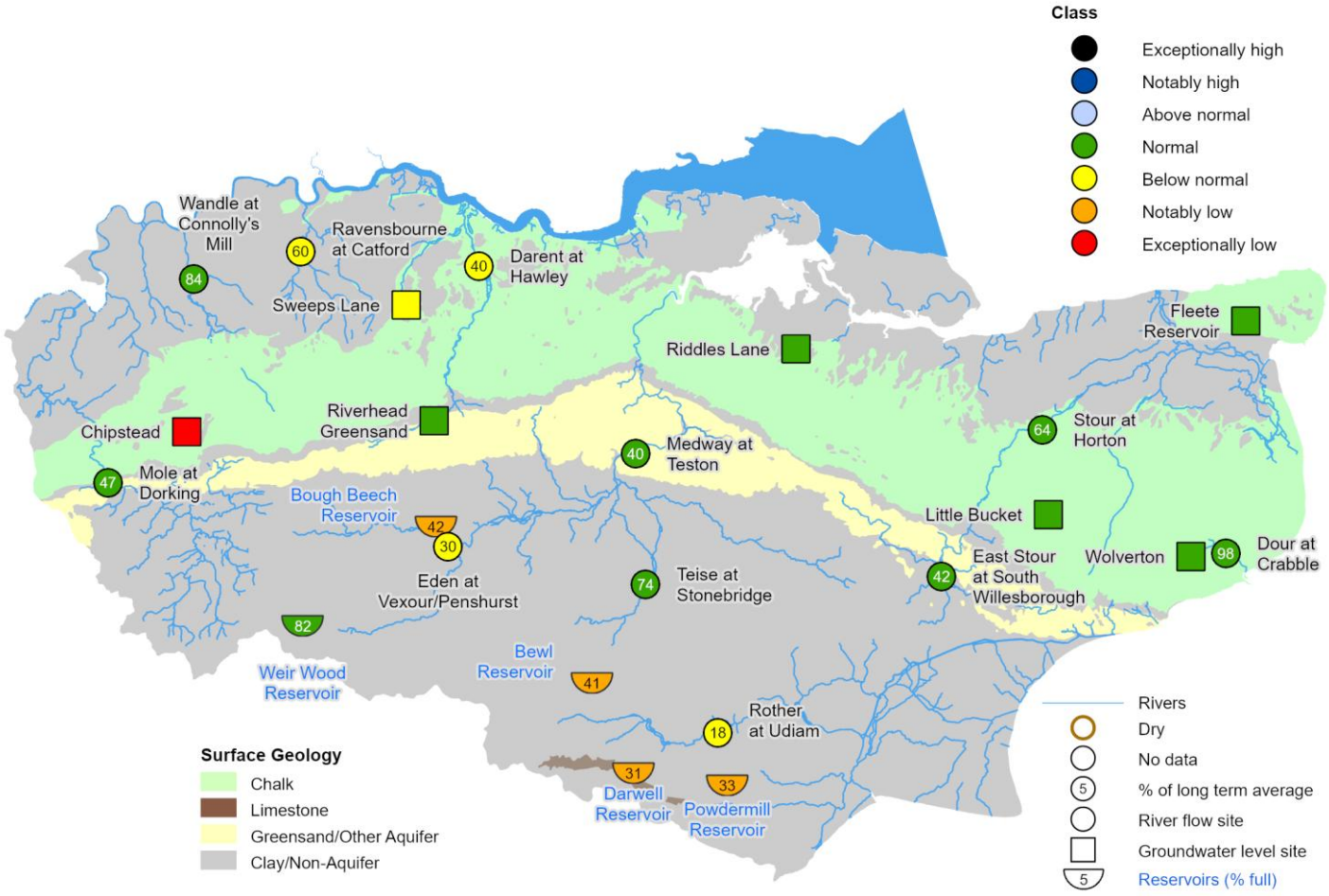
Figure 3.3: This is a second estimate of soil moisture deficit for the hydrological areas across the Kent and South London area. There may be significant variation within each area which must be considered when interpreting these data. EA soil moisture deficit data (Source EA Soil Moisture Model).

Number	Hydrological Area	SMD (mm) Day 31	End October LTA
6230TH	North Downs - South London (W)	143	70
6505TH	Upper Mole	117	56
6508TH	South London	152	94
6706So	Darent	158	89
6707So	North Kent Chalk	140	82
6708So	Stour	121	77
6709So	Dover Chalk	84	67
6710So	Thanet Chalk	190	203
6809So	Medway	118	59
6810So	Eastern Rother	101	54
6811So	Romney Marsh	118	70
6812So	North West Grain	175	123
6813So	Sheppey	161	110
	Kent & South London Average	137	89

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 October 2026, expressed as a percentage of the respective long term average (period 1992 – 2020) and classed relative to an analysis of historic October monthly means. End of month groundwater levels for indicator sites for October 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic October levels. Tables available in the appendices with detailed information. End of month levels for reservoirs** for October 2026, expressed as percent full. (Source: Water Companies).

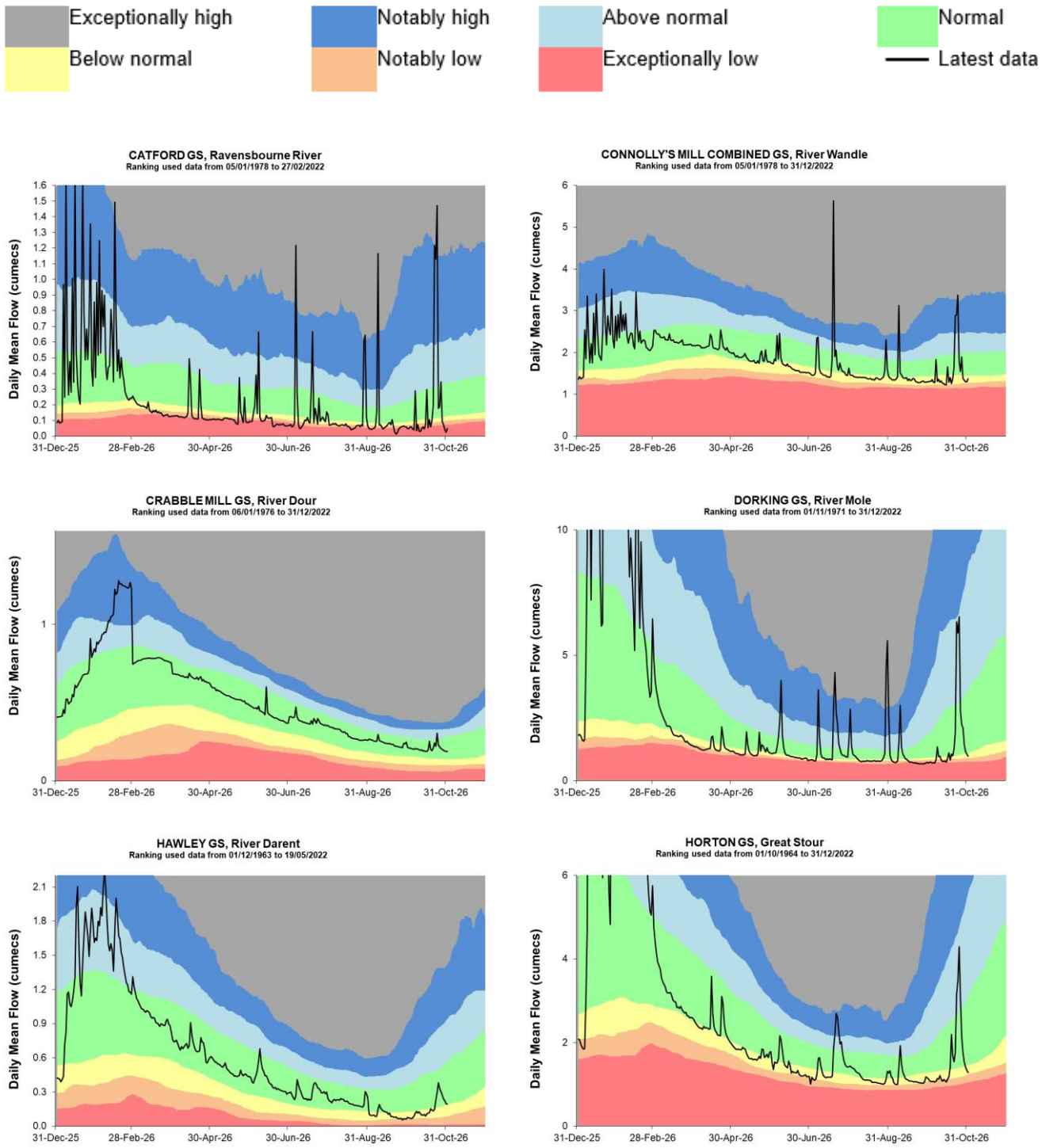


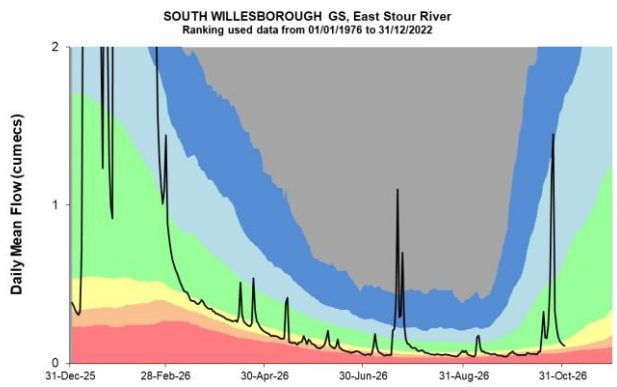
*Flows at gauging stations in the Medway catchment might be affected by upstream reservoir releases
**Weirwood Reservoir is currently offline

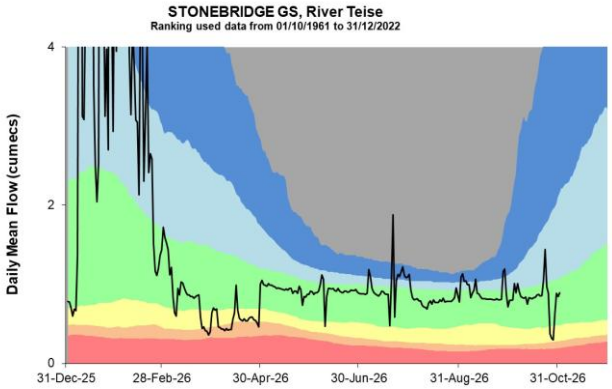
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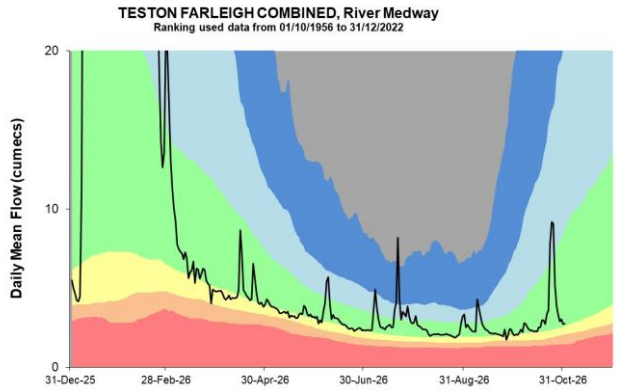
4.2 River flow charts

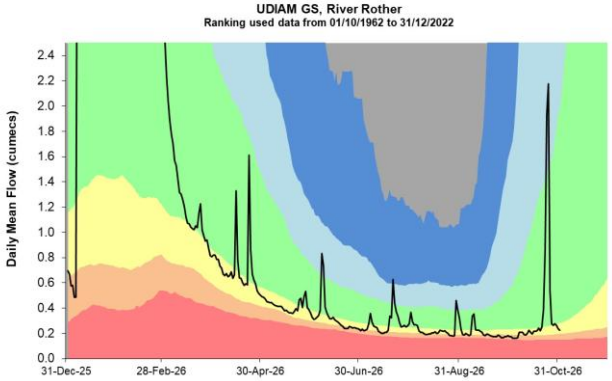
Figure 4.1: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.

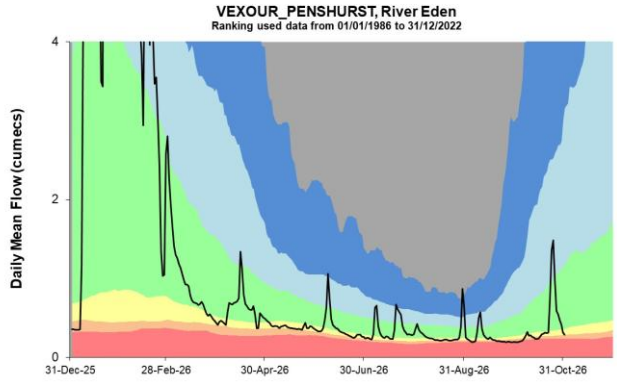










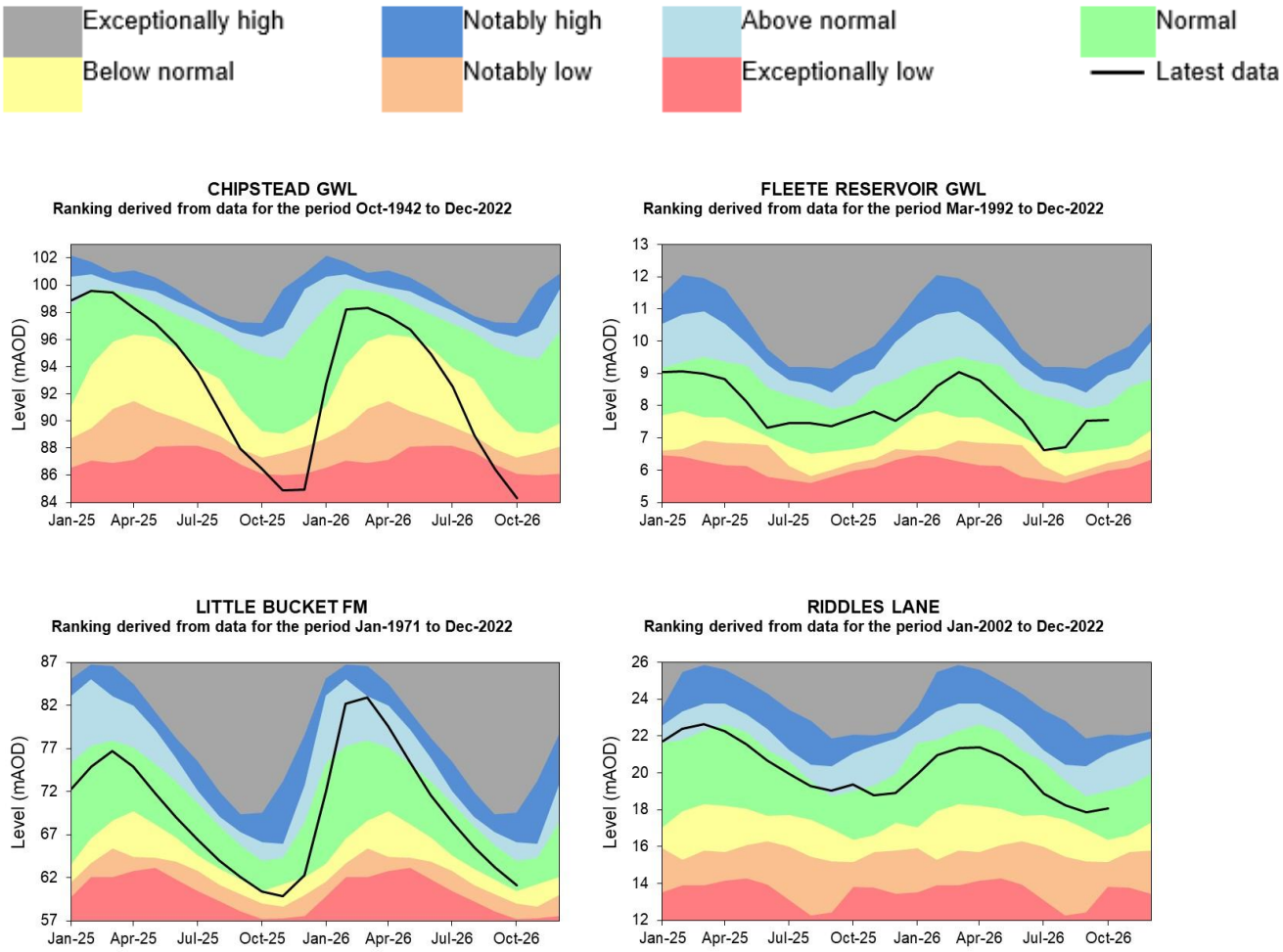


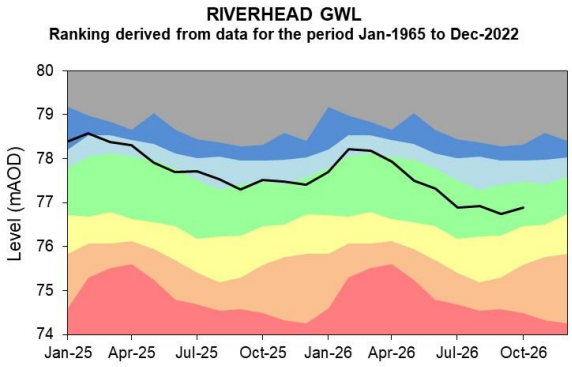
Source: Environment Agency.

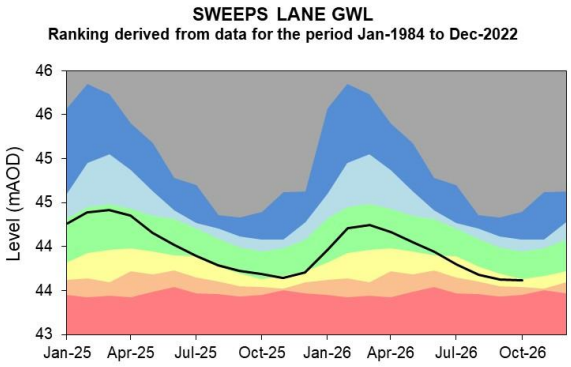
5 Groundwater levels

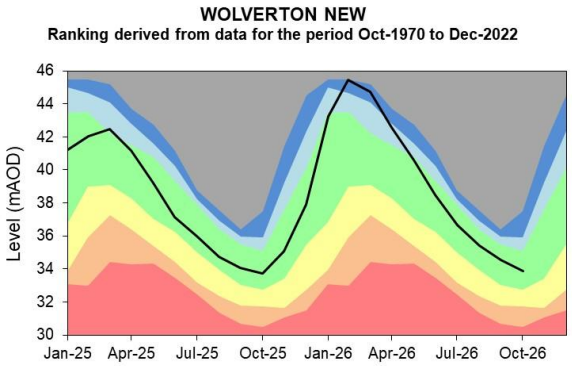
5.1 Groundwater level charts

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.







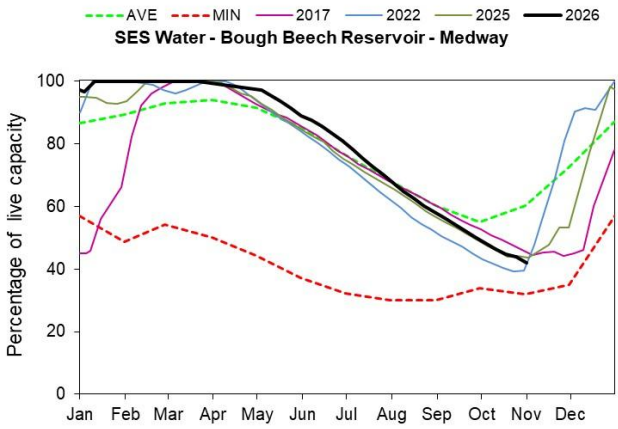


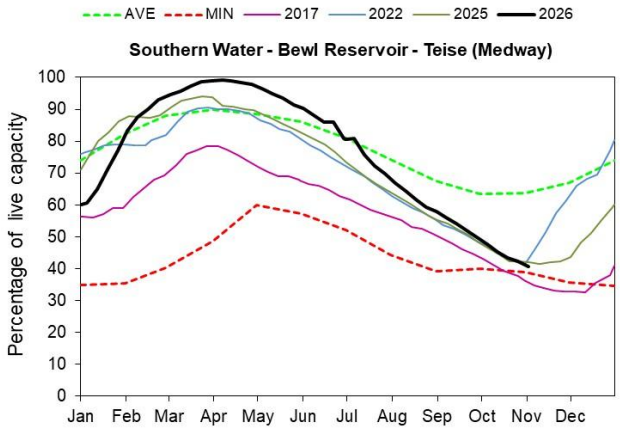
Source: Environment Agency, 2026.

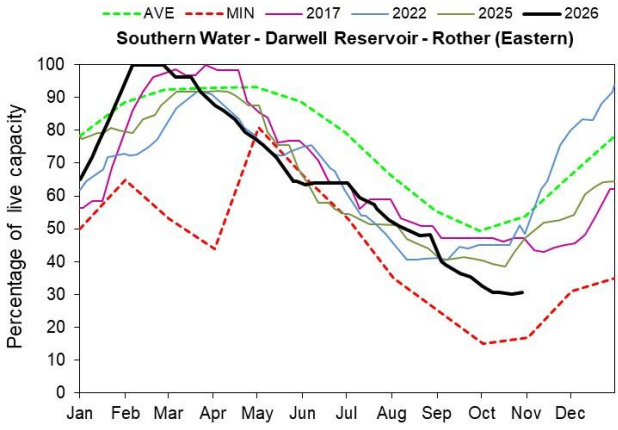
6 Reservoir stocks

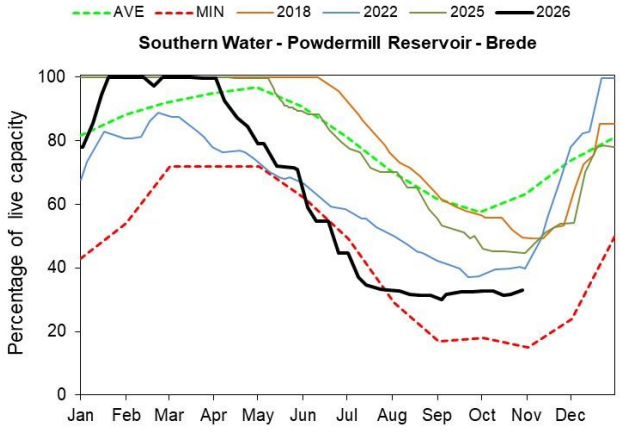
6.1 Reservoir stocks charts

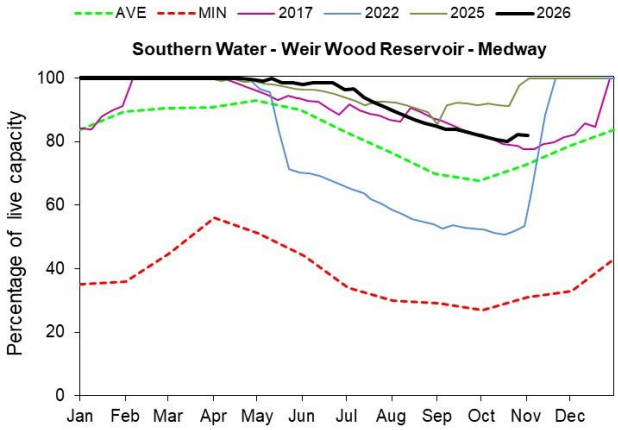
Figure 7.1: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. (Source: Water Companies). Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.











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	Oct 2026 rainfall % of long term average 1991 to 2020	Oct 2026 band	Aug 2026 to October cumulative band	May 2026 to October cumulative band	Nov 2025 to October cumulative band
North Downs - South London	115	Normal	Below normal	Notably low	Below normal
Upper Mole	116	Normal	Normal	Notably low	Normal
South London	119	Normal	Below normal	Notably low	Below normal
River Darent	115	Normal	Normal	Notably low	Below normal
North Kent Chalk	119	Normal	Normal	Below normal	Below normal
Stour	123	Above Normal	Normal	Below normal	Normal
Dover Chalk	133	Above Normal	Normal	Normal	Normal
Thanet Chalk	119	Above Normal	Normal	Below normal	Below normal
River Medway	116	Normal	Normal	Below normal	Normal

Hydrological area	Oct 2026 rainfall % of long term average 1991 to 2020	Oct 2026 band	Aug 2026 to October cumulative band	May 2026 to October cumulative band	Nov 2025 to October cumulative band
Eastern Rother	116	Normal	Normal	Below normal	Normal
Romney Marsh	118	Normal	Normal	Below normal	Normal
North West Grain	102	Normal	Normal	Notably low	Below normal
Sheppey	113	Normal	Normal	Below normal	Below normal

8.2 River flows table

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

8.3 Groundwater table

Site name	Aquifer	End of Oct 2026 band	End of Sep 2026 band
Fleete Reservoir	Isle Of Thanet Chalk	Normal	Normal
Chipstead	Epsom North Downs Chalk	Exceptionally low	Exceptionally low
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	Below normal
Wolverton New	East Kent Chalk - Stour	Normal	Normal