Monthly water situation report: Solent and South Downs Area

Summary - August 2026

Solent and South Downs (SSD) had below average rainfall in August, receiving 63% (42mm) of long-term average (LTA) of 66mm. Monthly mean river flows across SSD ranged from exceptionally low to normal in August. Groundwater levels ranged from notably low to above normal in July. Soils in all the hydrological areas ended the month drier than average for August. End of month reservoir stocks decreased and were below average at Ardingly Reservoir (Ouse) (38% of LTA) and at Arlington Reservoir (Cuckmere) (48% of LTA).

1.1 Rainfall

SSD had below average rainfall in August, receiving 63% (42mm) of the LTA (66mm). However, the overall SSD figure masks the distribution of rainfall across the hydrological areas. The Hampshire Tertiaries hydrological area in the west of the SSD received the least rainfall in August with 32mm. This represents 49% of LTA (64.7mm). The Pevensey Levels hydrological area in the east received the most rainfall with 62mm which is 96% of the LTA (64.6mm).

The first part of August had very little, if any, rainfall as the hot, dry conditions which began in the second half of June and continued throughout July predominated. The pattern finally changed on 18 August, and more typical summer weather was experienced for the remainder of the month. The 19 and 30 of August recorded the most significant rainfall across the area. The highest daily rainfall totals were as follows:

- 45.7mm was recorded at Pevensey RG in the Pevensey Levels hydrological area on 19 August, which represented 46% of the recorded monthly total (99.0mm)
- 37.6mm was recorded at Ashington in the Adur hydrological area on 30 August, which represented 43% of the recorded monthly total (88.0mm).

The April to August 5-month period was the fifth driest for the Test Chalk hydrological area. The March to August 6-month period was the fourth driest for Sussex Coast hydrological area.

All these statistics are based on records going back to 1871.

1.2 Soil moisture deficit and recharge

Soils in all the hydrological areas ended the month drier than average for August despite the rainfall in the second part of the month. There was no effective rainfall across SSD and so no recharge this month.

1.3 River flows

Monthly mean river flows at the main reporting sites across SSD ranged from exceptionally low to normal in August. Flows at many sites were boosted by rainfall in the second half of the month. However, the response was muted because of the dryness of the catchments following the extended hot and dry conditions over previous months.

Flows at the River Lymington at the Brockenhurst, and the River Arun at Alfoldean were classed as exceptionally low. These rivers are in clay catchments with low baseflows and therefore dependant on rainfall. Flows ranged between 12% and 34% of the LTA. The monthly mean flows for August was the second lowest on record for the River Arun at Alfoldean since 1970, and third lowest for the Lymington at the Brockenhurst since 1960.

The flows at the Wallington River at North Fareham were classed as notably low with flows at 32% of the LTA. The geology and behaviour of the Wallington is complicated but during summer months its flows is dependent on rainfall hence flows being notably low. Flows were the third lowest for August for the Wallington at North Fareham in a record going back to 1976.

Monthly mean flows at four sites were classed in the below normal range. These were the River Test at Broadlands, the River Test at Chilbolton River, the Adur at Sakeham and the River Cuckmere at Cowbeech. The flows at these sites ranged between 51% and 86% of the LTA.

Flows at the rest of the indicator sites were classed as normal and ranged between 85% and 99% of the LTA. There were the Itchen at Allbrook and Highbridge, the Meon at Mislingford, the Medina at Blackwater and the Rother at Iping Mill. These sites are in predominantly groundwater fed catchments, which means rivers are sustained by baseflow. Monthly mean flows were also classed as normal on the Ouse at Goldbridge. Flows in this river are supported by the augmentation releases from the Ardingly reservoir.

1.4 Groundwater levels

End of month groundwater levels for August ranged from notably low to above normal. Groundwater levels at all sites continued to recede in line with the expected trend for this time of the year. Despite the hot and dry weather over the recent month’s groundwater levels remain at normal levels at the majority of reported sites.

However, the end of month groundwater level at Youngwoods Copse (Isle of Wight) was above normal. Youngwoods Copse monitors greensand geology which unlike the surrounding Chalk has a delayed reaction to conditions. This also sustains a baseflow to the Eastern Yar for longer than other rivers on the Island.

In addition, end of month groundwater level at Houndean Bottom (East Sussex Chalk) were below normal, while Beeding Hill (West Sussex Chalk), Carisbrooke Castle (Isle of Wight) and Chilgrove (West Sussex Chalk) were notably low despite being Chalk units. Carisbrooke Castle and Chilgrove are notably low despite being Chalk units due to the highly fractured and

low storage nature of their geology. Consequently, these sites have large and rapid groundwater level rises and falls.

1.5 Reservoir stocks

End of month reservoir stocks have further declined this month and remain below average at Ardingly Reservoir (Ouse) and at Arlington Reservoir (Cuckmere). Ardingly Reservoir (Ouse) was at 38.4% of total capacity (LTA 73%) and Arlington Reservoir (Cuckmere) was at 48% of total capacity (LTA 62.75%) compared to both being at 61% at the end of July.

1.6 Environmental impact

Water Resources

SSD moved into drought status at the start of August due to the lack of rainfall and declining water resources conditions. There are active Temporary Use Bans (TUBs) in SSD covering Southern Water – Hampshire and the Isle of Wight and South East Water – Sussex.

There were 25 licence restrictions in place during August; 21 non-public water supply (PWS) and 4 PWS. In addition, PWS transfer and augmentation schemes are in place on the Isle of Wight and River Ems. Table 10.5 in the appendix provides more information.

Arun & Western Streams:

- There were nine restrictions / cessations in place throughout August: one on the River Lod, three on the Western Rother, four on the River Arun and one on the Pagham Rife.

Cuckmere & Pevensey Levels:

- The restriction on the abstraction rate for the PWS licence on the Wallers Haven was in place throughout the month.

East Hampshire:

- There was one cessation in place throughout the month for a licence on the River Meon.

Isle of Wight:

- Five restrictions on the River Medina were in place at throughout August. Additionally, the transfer scheme was in operation.

New Forest:

- There were four cessations in place throughout the month, three on the Walkford Brook and one on the River Lymington.

Test and Itchen:

- There were four restrictions/ cessations in place during August. Two on the River Ower and one on the River Test. The abstraction restriction for the PWS licence at Gaters Mill on the River Itchen also came into force.

Flood Warning and Alerts

Flooding can happen during a drought and will often be localised, and of a short duration. There were five flood alerts issued in August all on the 26 of the month; four in East Sussex and one in West Sussex.

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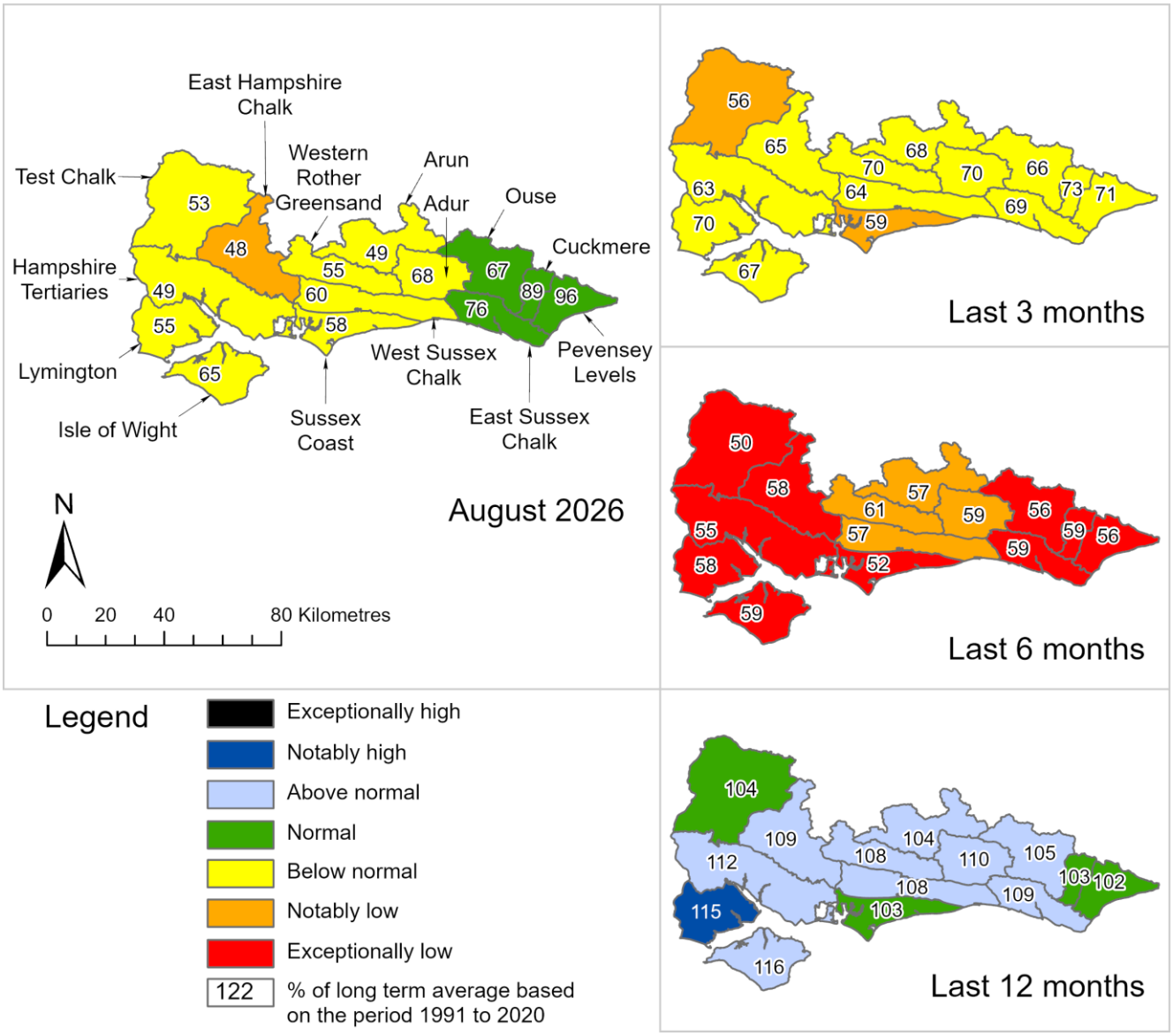
2. Rainfall

2.1 Rainfall map

Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 August 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.

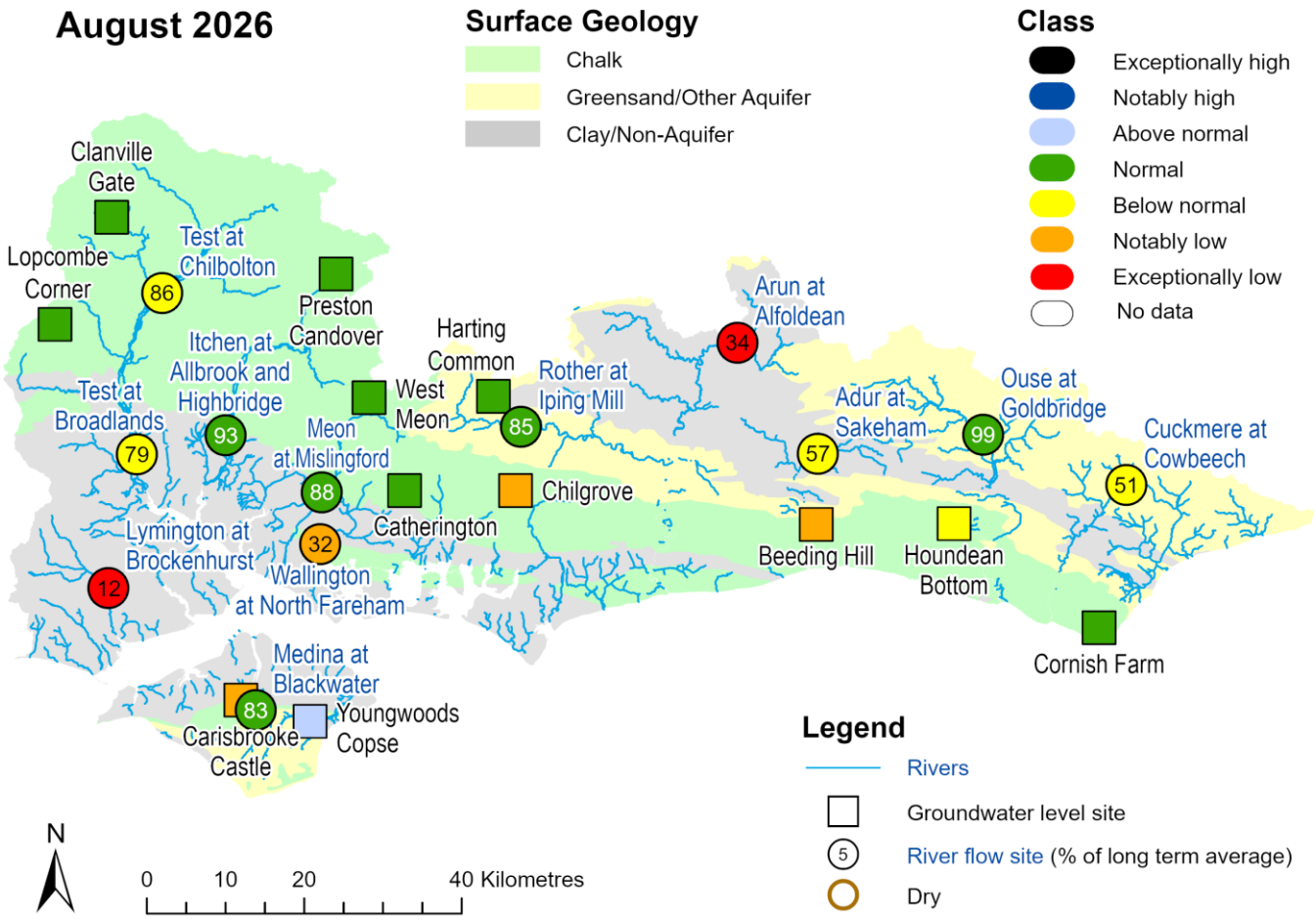


Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded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

3 River flows and Groundwater levels

3.1 River flows and Groundwater level map

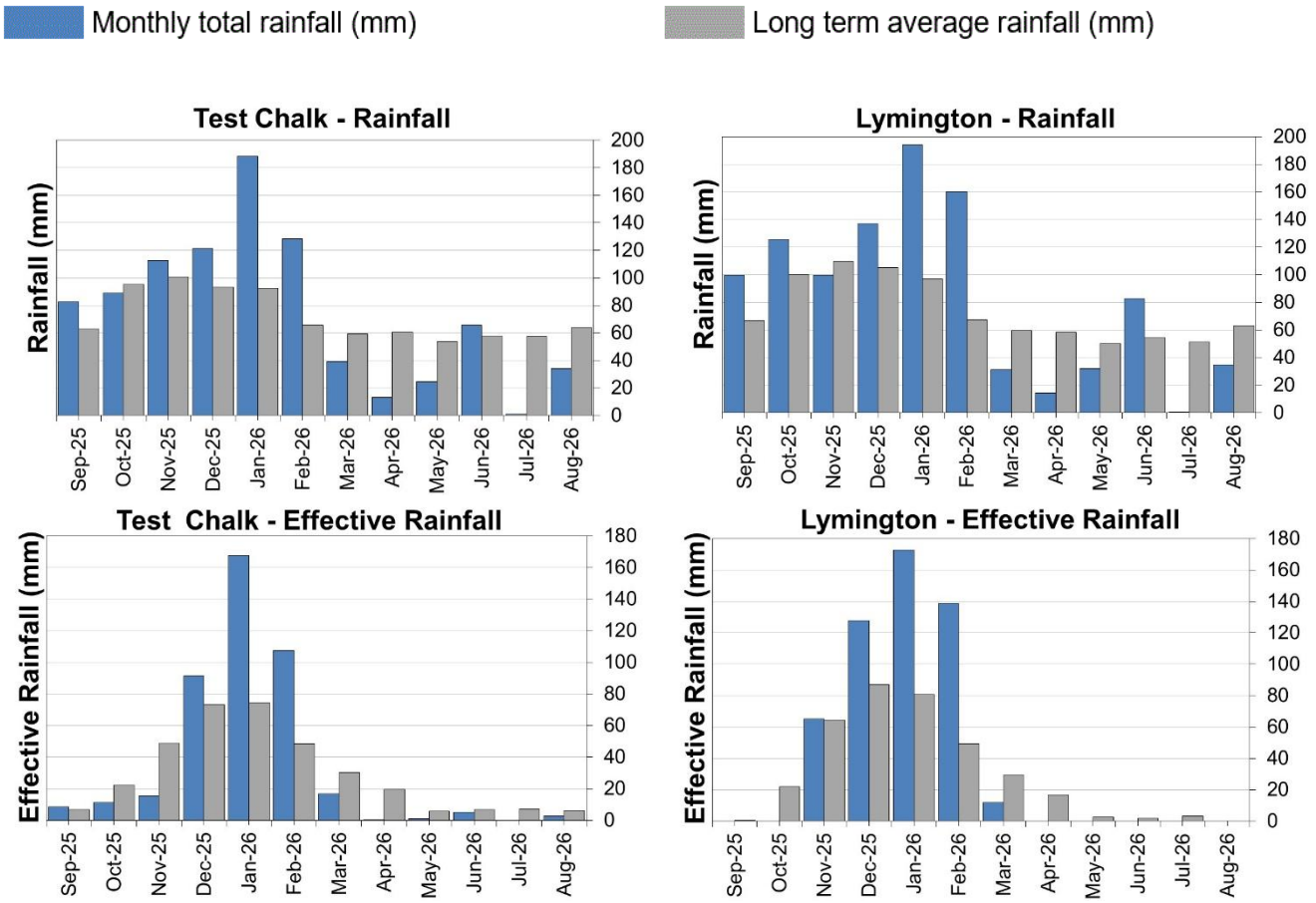
Figure 3.1: Monthly mean river flow and groundwater levels at our indicator sites for August 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic August monthly means. Table available in the appendices with detailed information.



4 West Hampshire

4.1 West Hampshire Rainfall and effective rainfall charts

Figure 4.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.

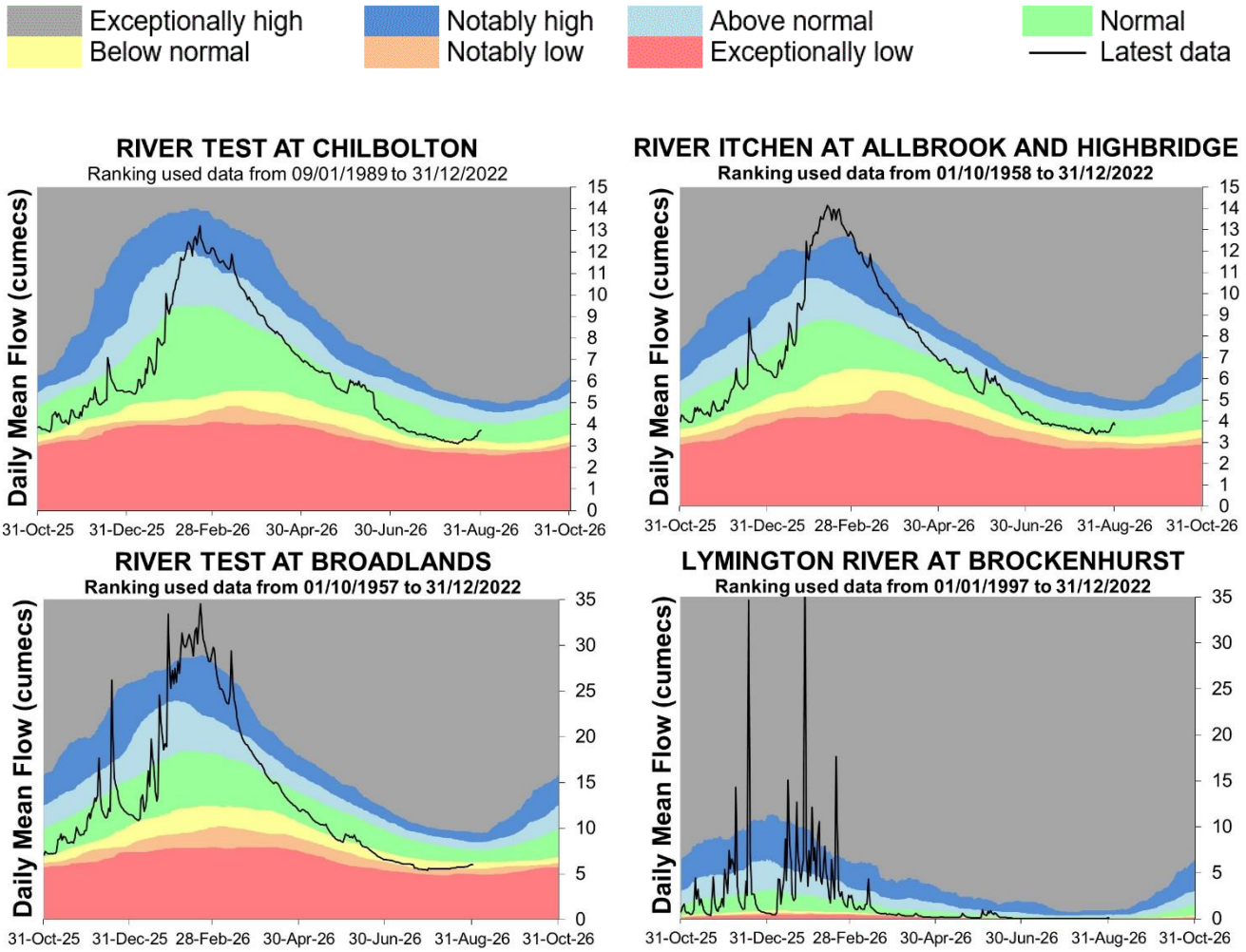


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

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

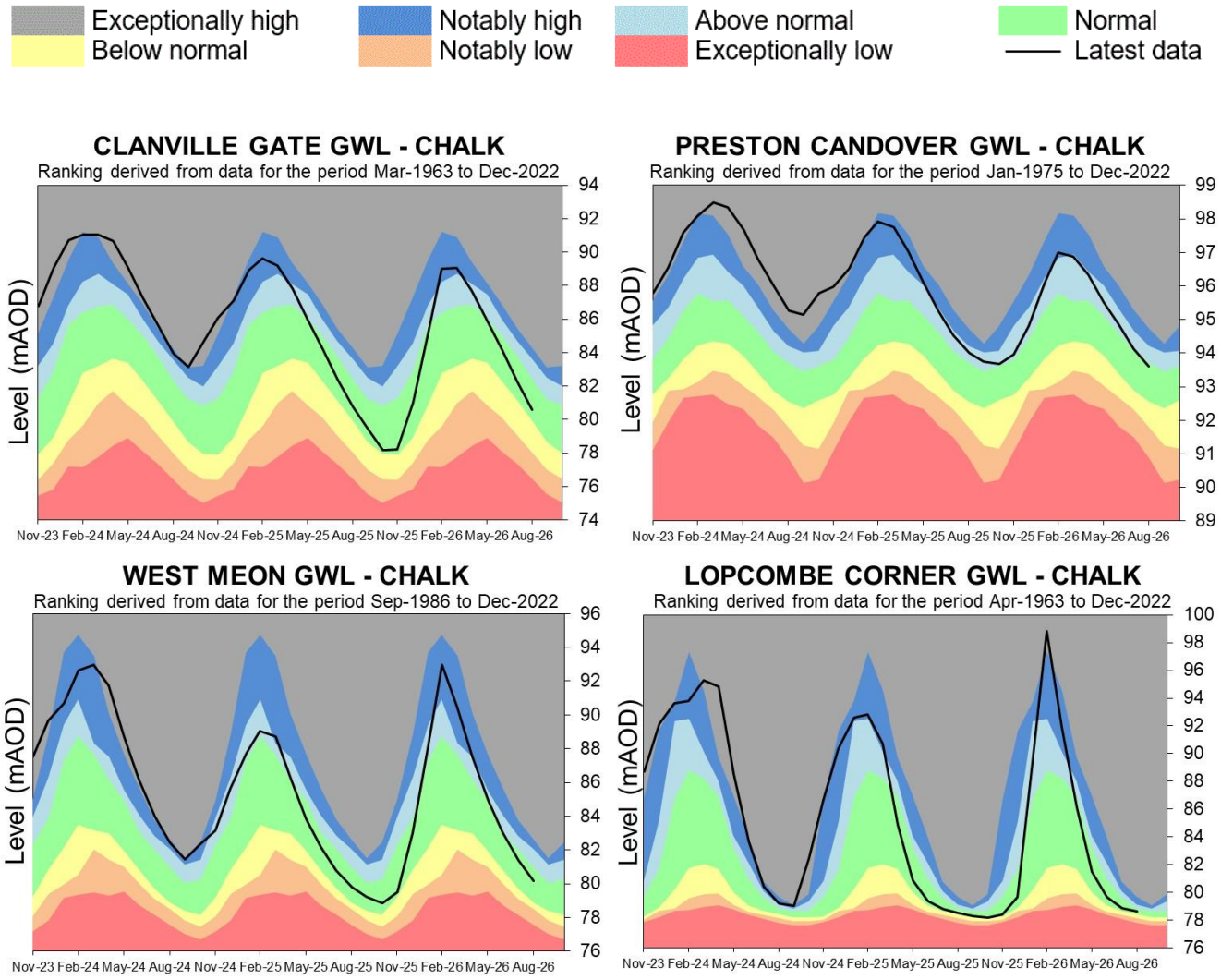
4.2 West Hampshire River flow charts

Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows



4.3 West Hampshire Groundwater level charts

Figure 4.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels

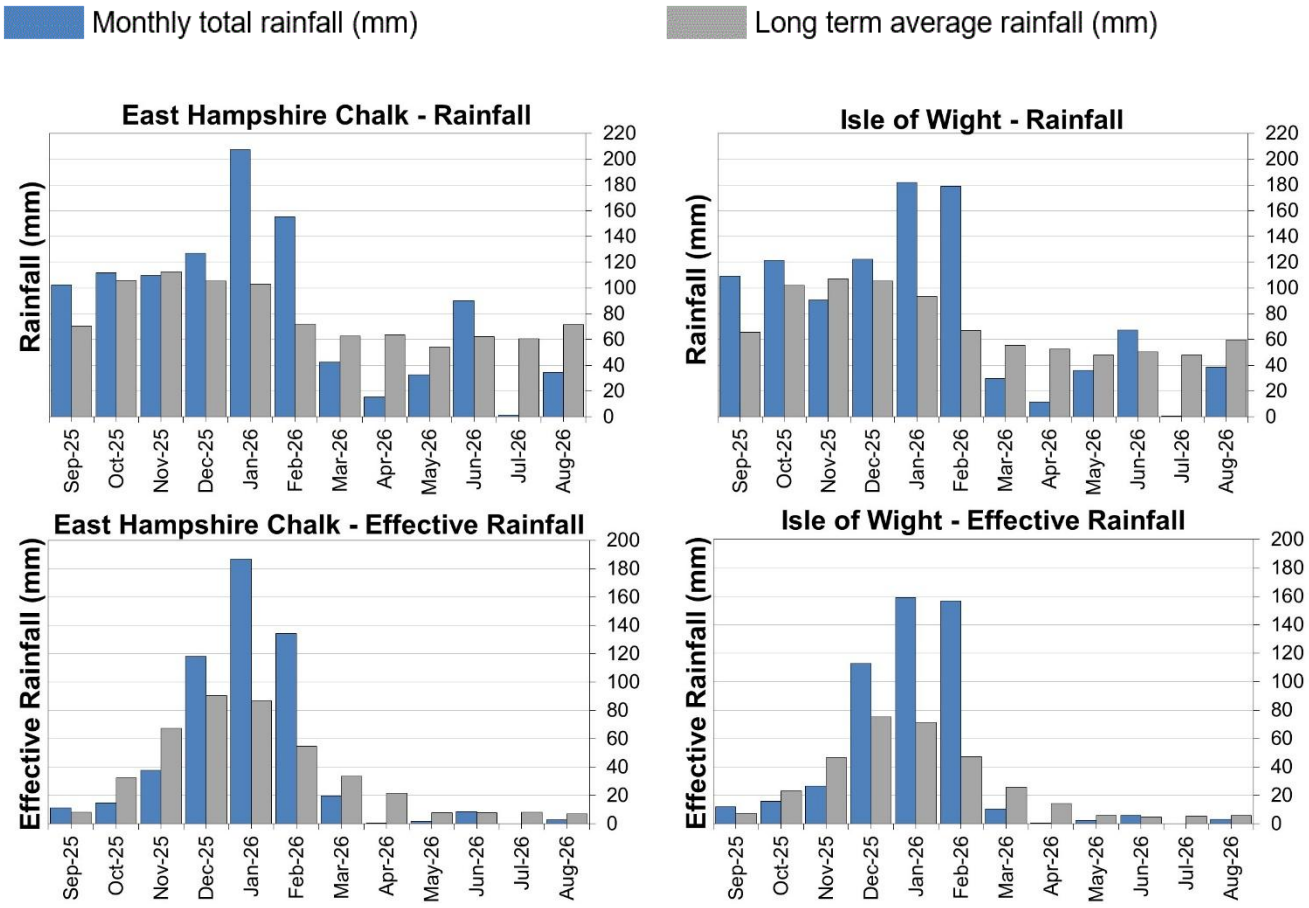


Source: Environment Agency, Crown copyright. All rights reserved. EA, AC0000807064, 2026.

5 East Hampshire and Isle of Wight

5.1 East Hampshire and Isle of Wight Rainfall and Effective rainfall charts

Figure 5.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.

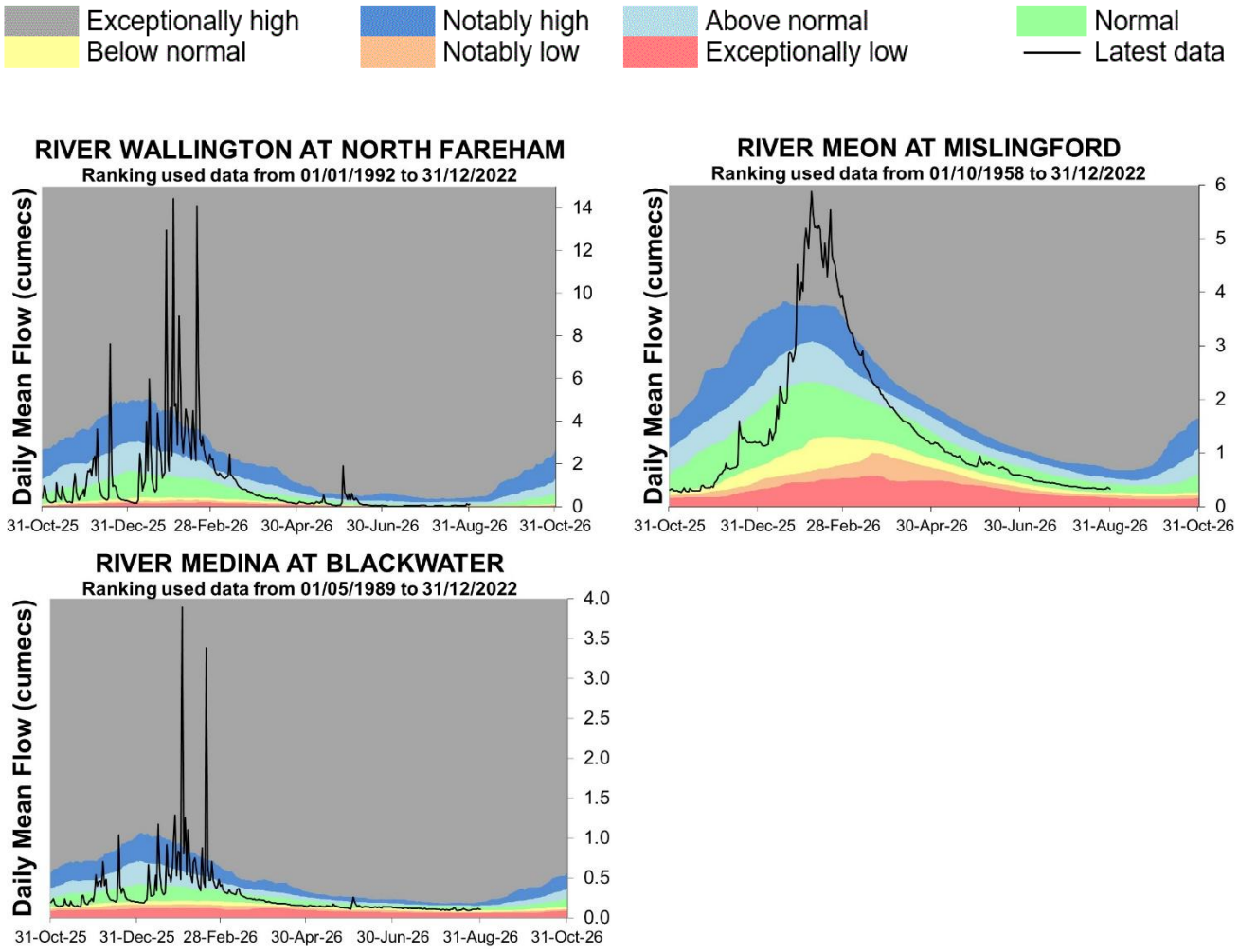


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

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

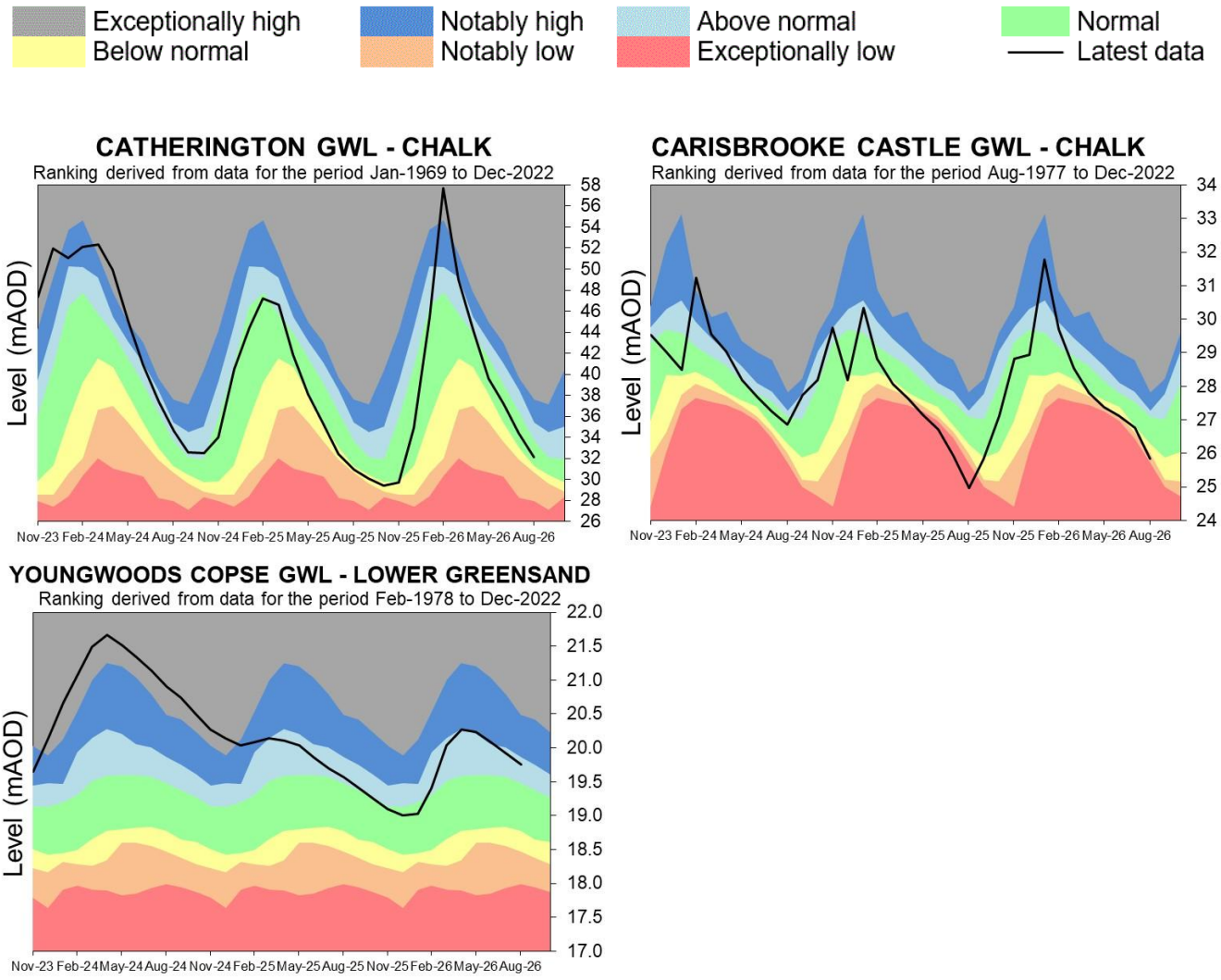
5.2 East Hampshire and Isle of Wight River flow charts

Figure 5.2 Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows



5.3 East Hampshire and Isle of Wight Groundwater level charts

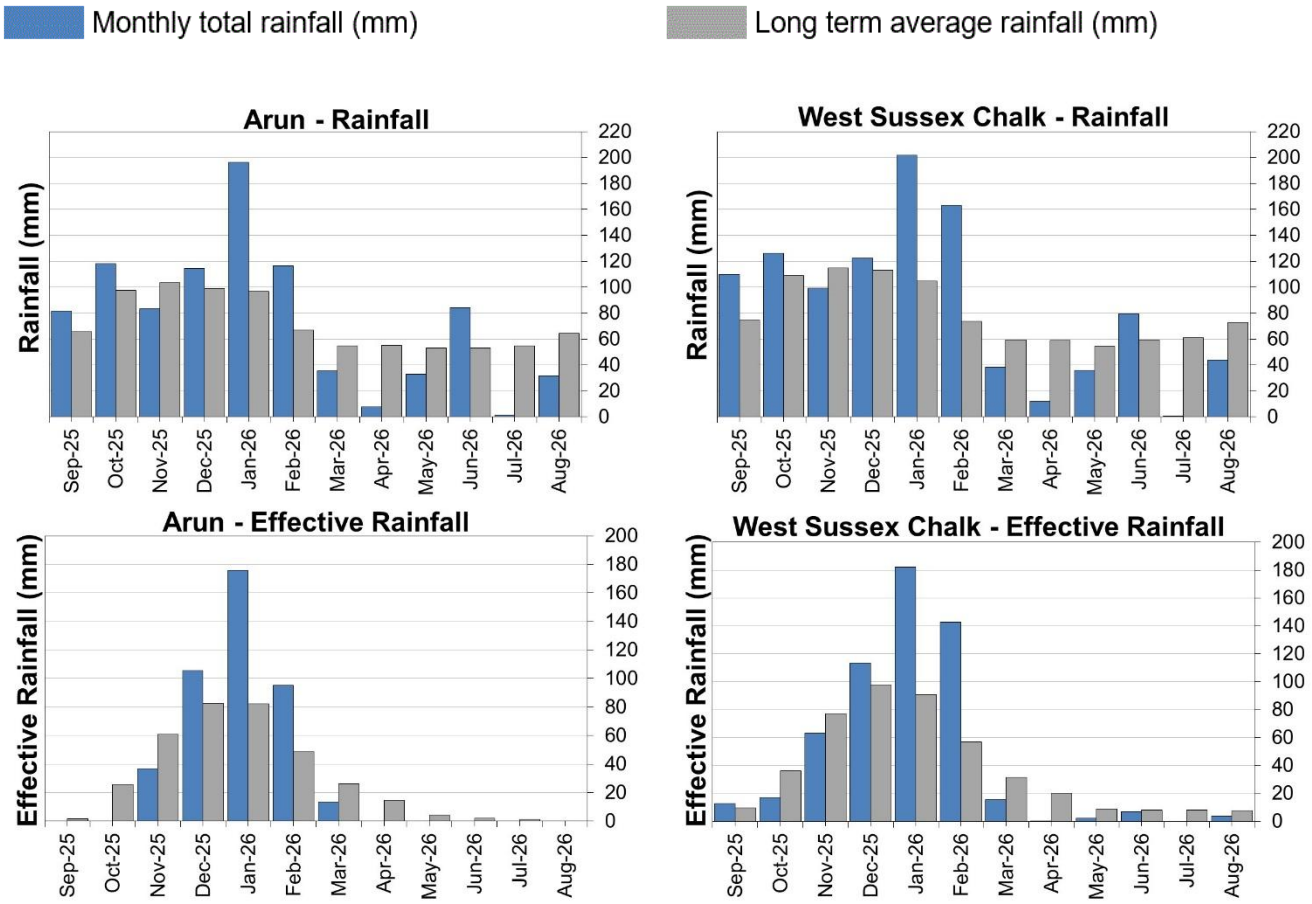
Figure 5.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels



6 West Sussex

6.1 West Sussex Rainfall and Effective Rainfall charts

Figure 6.1: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average.

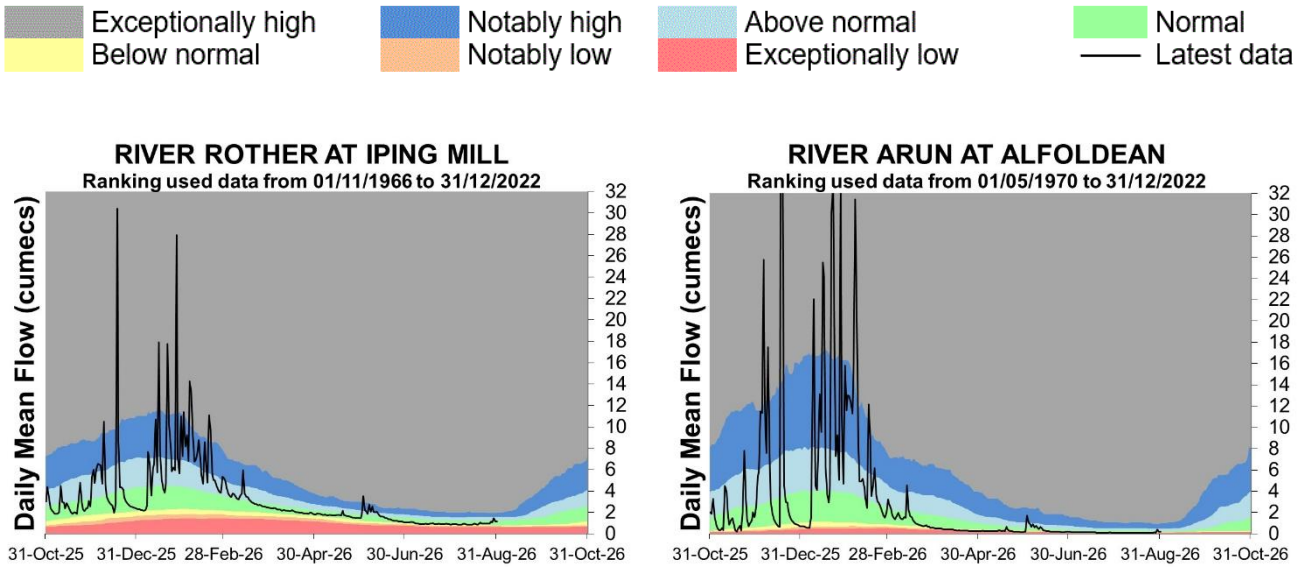


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

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

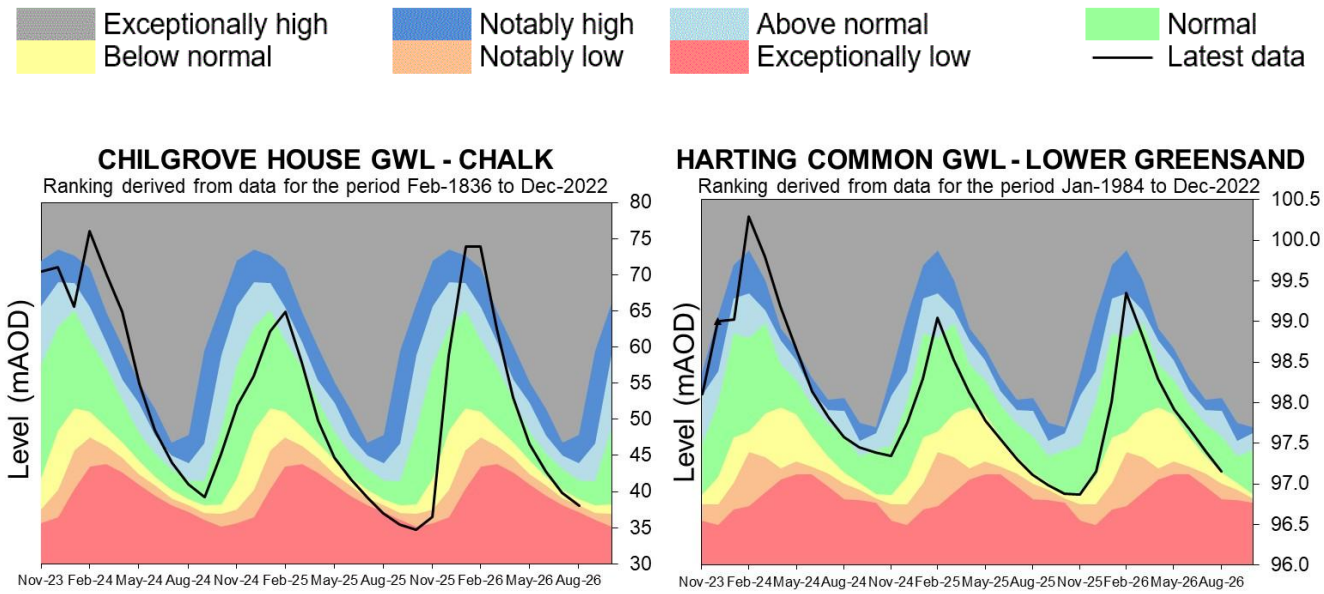
6.2 West Sussex River flow charts

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



6.3 West Sussex Groundwater level charts

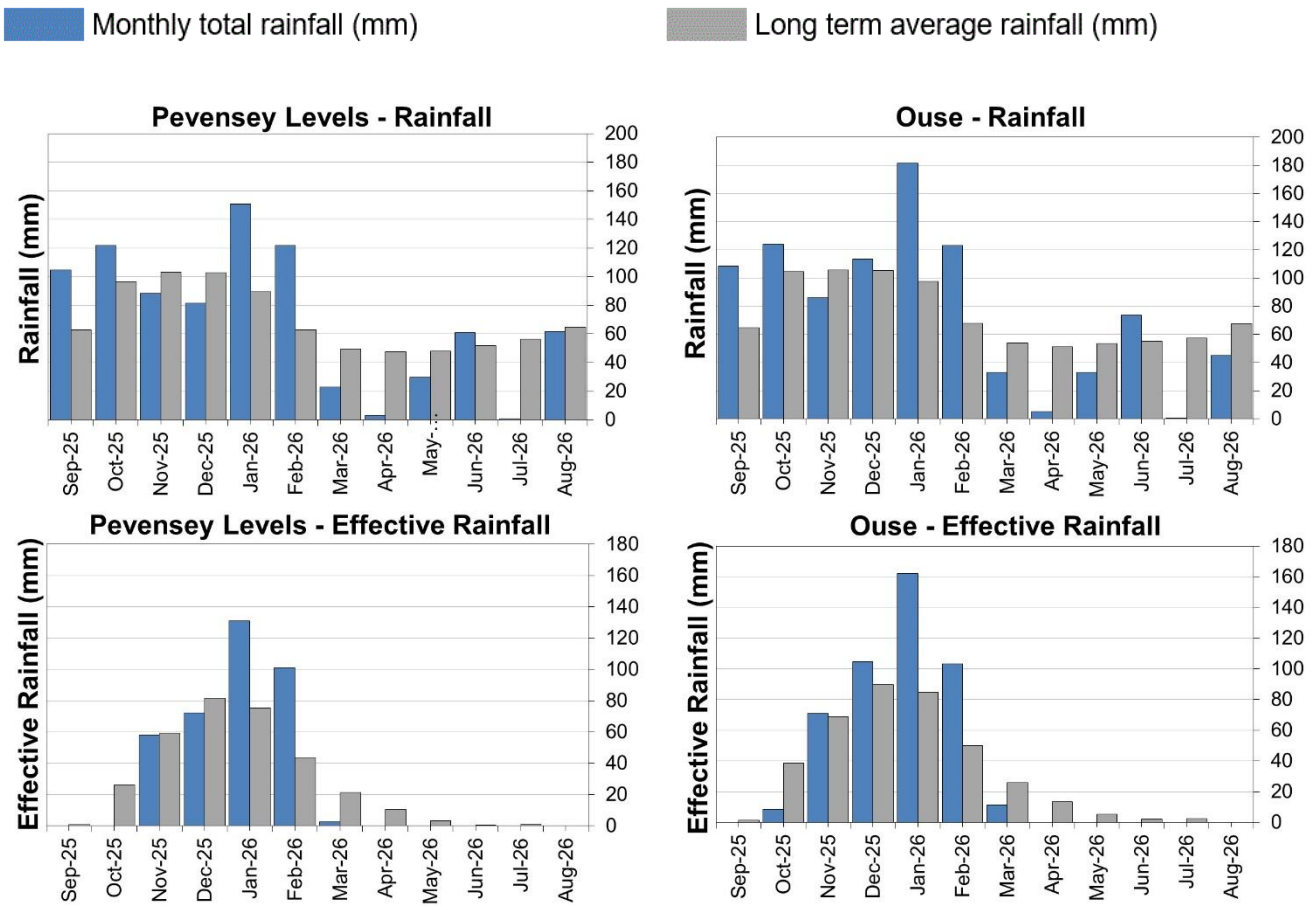
Figure 6.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels.



7 East Sussex

7.1 East Sussex Rainfall and Effective Rainfall charts

Figure 7.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.

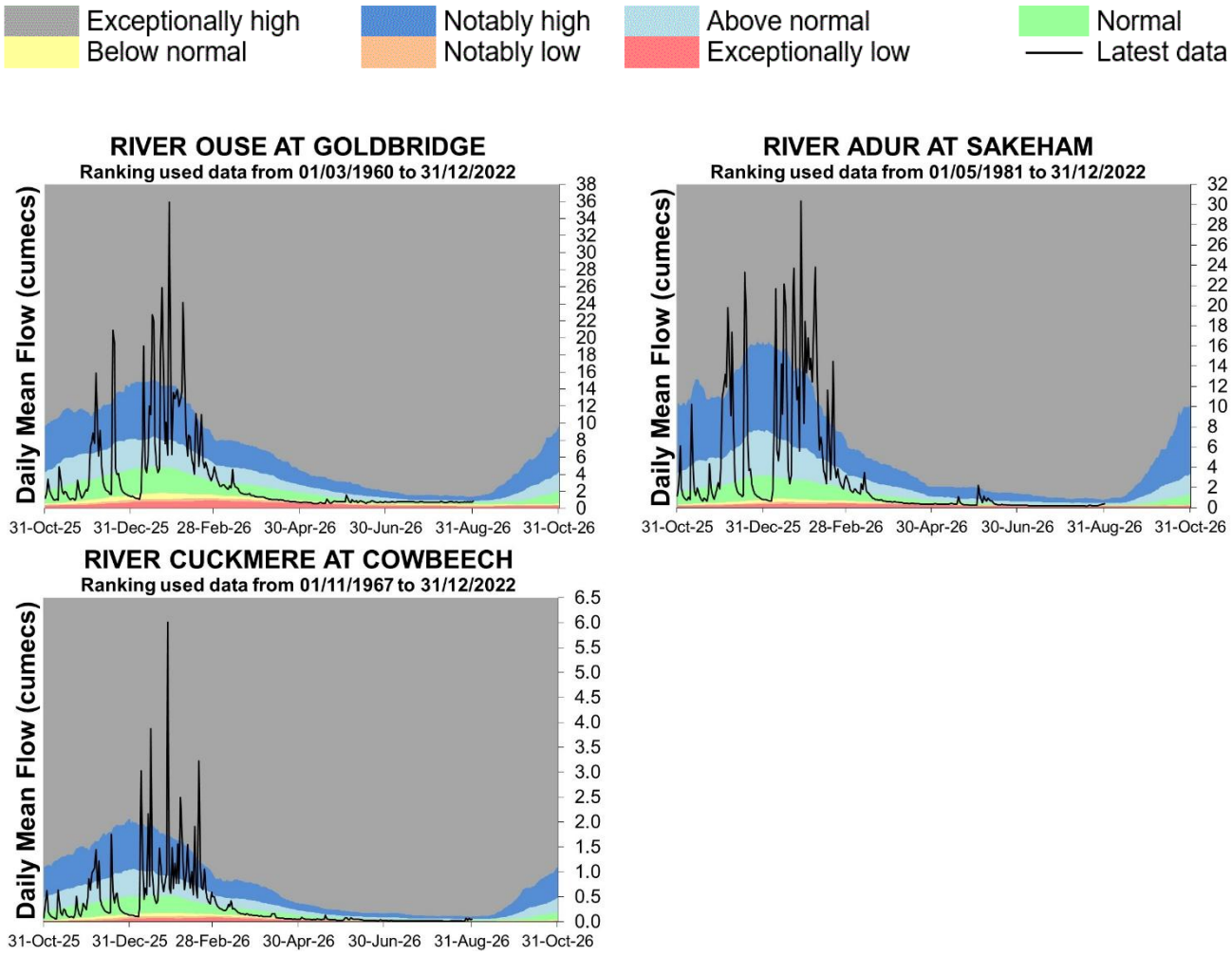


Rainfall data for January 2025 onwards, extracted from Environment Agency (EA) 1km gridded rainfall dataset derived from EA intensity rain gauges. (Source: EA. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

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

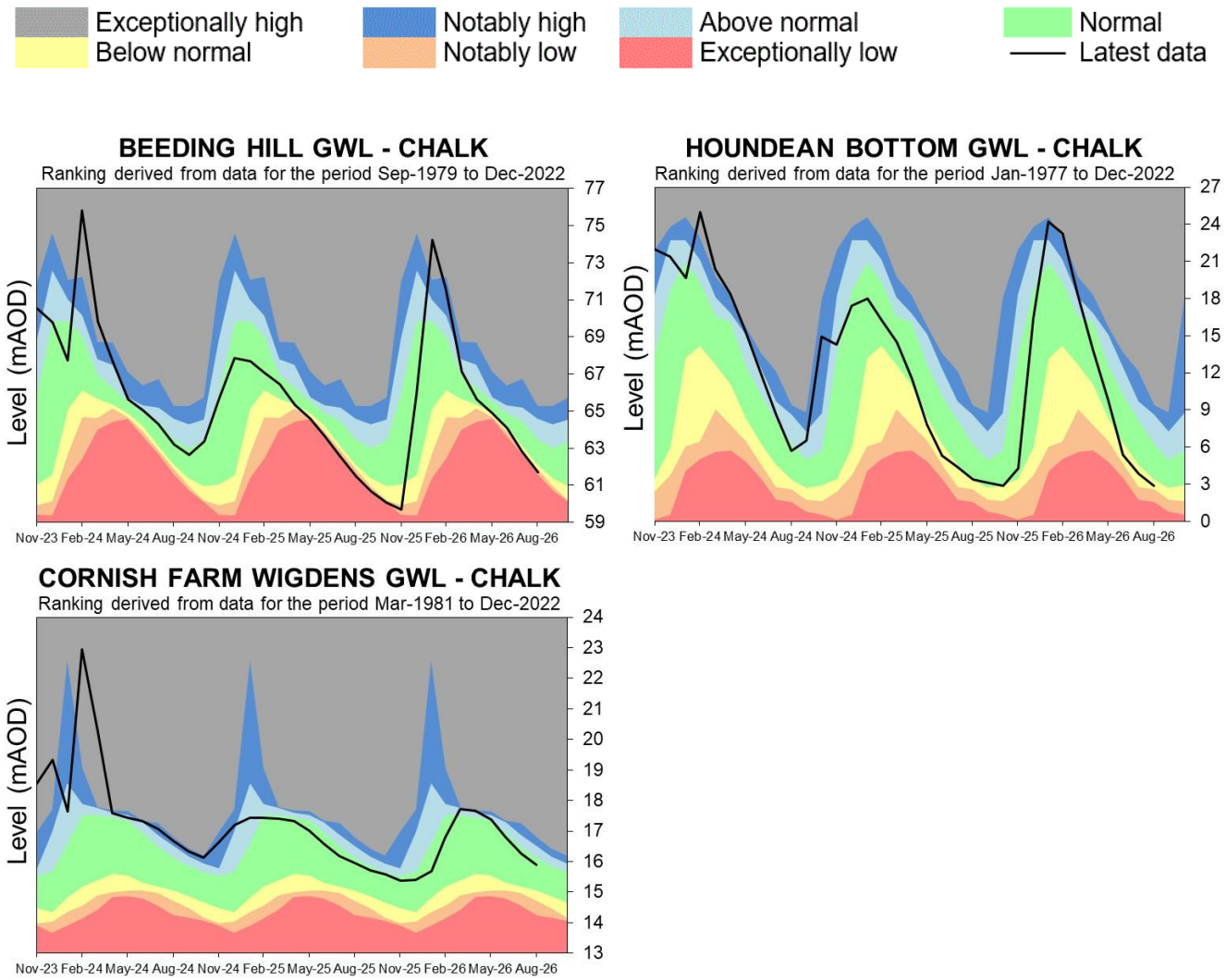
7.2 East Sussex River flow charts

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



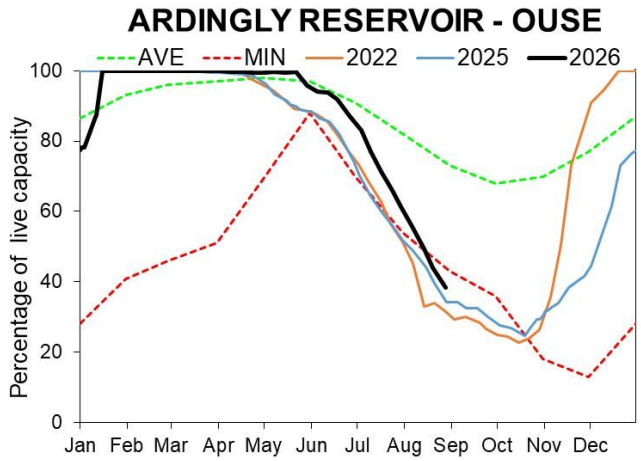
7.3 East Sussex Groundwater level charts

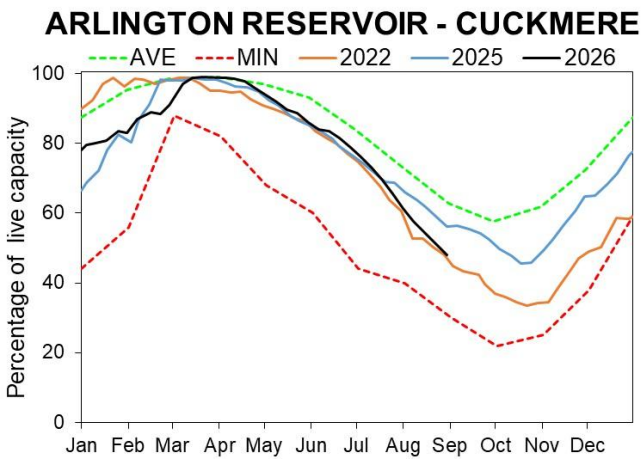
Figure 7.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels.



8 Reservoir stocks

Figure 8.1: End of month 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).

9 Glossary

9.1 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 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 1 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).

9.2 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.

10 Appendices

10.1 Rainfall, effective rainfall and soil moisture deficit table

Figure 10.1: This is areal rainfall, effective rainfall (percolation or runoff) and soil moisture deficit for the hydrological areas across the SSD. 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 10.2

Hydrological area	Rainfall (mm) 31 day Total	Rainfall August %LTA	Effective rainfall (mm) 31 day Total	Effective rainfall August as %LTA	Soil Moisture Deficit (SMD) Day 31	SMD end of August LTA
Test Chalk	34	53%	3	44%	182	100
East Hampshire Chalk	35	48%	3	41%	170	95
West Sussex Chalk	44	60%	4	51%	162	92
East Sussex Chalk	51	76%	5	74%	162	98
Isle of Wight	39	65%	3	52%	179	109
Western Rother Greensand	40	55%	4	48%	163	95
Hampshire Tertiaries	32	49%	0	0	177	101
Lymington	35	55%	0	0	170	96
Sussex Coast	34	58%	0	0	180	109
Arun	31	49%	0	0	170	95
Adur	44	68%	0	0	157	92
Ouse	45	67%	0	0	156	88
Cuckmere	61	89%	0	0	145	87
Pevensey Levels	62	96%	0	0	151	95
SSD Average	42	63%	1	52%	166	97

10.2 Seasonal summary table of rainfall and effective rainfall

Summer season: 01/04/2026 to 30/09/2026

Hydrological area	Seasonal rainfall total (mm)	Seasonal rainfall as % LTA	Seasonal effective rainfall total (mm)	Seasonal effective rainfall as % LTA
Test Chalk	139	47%	9	21%
East Hampshire Chalk	174	56%	14	27%
West Sussex Chalk	172	56%	14	26%
East Sussex Chalk	163	58%	14	34%
Isle of Wight	154	59%	12	33%
Western Rother Greensand	184	59%	15	28%
Hampshire Tertiaries	154	55%	0	0%
Lymington	164	59%	0	0%
Sussex Coast	131	52%	0	0%
Arun	156	56%	0	0%
Adur	160	57%	0	0%
Ouse	157	55%	0	0%
Cuckmere	169	60%	0	0%
Pevensey Levels	156	58%	0	0%
SSD Average	159	56%	6	17%

10.3 Rainfall banding table

Hydrological area	August 2026 band	June 2026 to August 2026 cumulative band	March 2026 to August 2026 cumulative band	September 2025 to August 2026 cumulative band
Test Chalk	Below normal	Notably low	Exceptionally low	Normal
East Hampshire Chalk	Notably low	Below normal	Exceptionally low	Above normal
West Sussex Chalk	Below normal	Below normal	Notably low	Above normal
East Sussex Chalk	Normal	Below normal	Exceptionally low	Above normal
Isle of Wight	Below normal	Below normal	Exceptionally low	Above normal
Western Rother Greensand	Below normal	Below normal	Notably low	Above normal
Hampshire Tertiaries	Below normal	Below normal	Exceptionally low	Above normal
Lymington	Below normal	Below normal	Exceptionally low	Notably high
Sussex Coast	Below normal	Notably low	Exceptionally low	Above normal
Arun	Below normal	Below normal	Notably low	Above normal
Adur	Below normal	Below normal	Notably low	Above normal
Ouse	Normal	Below normal	Exceptionally low	Above normal
Cuckmere	Normal	Below normal	Exceptionally low	Normal
Pevensey Levels	Normal	Below normal	Exceptionally low	Normal

10.4 River flows table

Site name	River	Catchment	August 2026 band	July 2026 band
Alfoldean Gs	Arun	Arun	Exceptionally low	Exceptionally low
Allbrook Gs+ Highbridge	Itchen (so)	Itchen	Normal	Normal
Blackwater	Medina	Isle of Wight	Normal	Normal
Broadlands	Test	Test Lower	Below normal	Below normal
Brockenhurst GS	Lymington	New Forest	Exceptionally low	Exceptionally low
Chilbolton GS	Test	Test Upper	Below normal	Normal
Cowbeech Gs	Cuckmere	Cuckmere	Below normal	Below normal
Goldbridge Gs	Ouse [so]	Ouse Sussex	Normal	Normal
Iping Mill Gs	Rother	West Rother	Normal	Normal
Mislingford GS	Meon	Meon	Normal	Normal
North Fareham GS	Wallington	Wallington	Notably low	Exceptionally low
Sakeham GS	Adur	Adur	Below normal	Below normal

10.5 Groundwater table

Site name	Aquifer	End of August 2026 band	End of July 2026 band
Carisbrooke Castle	Isle Of Wight Central Downs Chalk	Notably low	Below normal
Youngwoods Copse	Isle of Wight Lower Greensand	Above normal	Above normal
Clanville Gate Gwl	River Test Chalk	Normal	Normal
Lopcombe Corner Gwl	River Test Chalk	Normal	Normal
Preston Candover	River Itchen Chalk	Normal	Above normal
West Meon Hut Gwl	River Itchen Chalk	Normal	Normal
Catherington	River Meon Chalk	Normal	Normal
Chilgrove House Gwl	Chichester-Worthing-Portsdown Chalk	Notably low	Below normal
Beeding Hill Gwl	Brighton Chalk Block	Notably low	Notably low
Houndean Bottom Gwl	Brighton Chalk Block	Below normal	Below normal
Harting Common Down	Western Rother Lower Greensand	Normal	Normal
Cornish Wigdens Gwtr	Eastbourne Chalk Block	Normal	Normal

10.6 Abstraction licence flow constraints

Catchment	Number of flow constraints in force between 1 to 11 August 2026		Number of flow constraints in force between 12 to 18 August 2026		Number of flow constraints in force between 19 to 25 August 2026		Number of flow constraints in force between 26 to 31 August 2026	
	Non-PWS	PWS	Non-PWS	PWS	Non-PWS	PWS	Non-PWS	PWS
SSD	**18**	**4**	**18**	**4**	**21**	**4**	**21**	**4**
Arun and Western streams	6	1	6	1	9	1	9	1
Cuckmere and Pevensey	0	1	0	1	0	1	0	1
East Hampshire	1	0	1	0	1	0	1	0
Isle of Wight	6	1	4	1	4	1	4	1
New Forest	4	0	4	0	4	0	4	0
Test and Itchen	1	1	3	1	3	1	3	1

10.7 Solent and South Downs hydrological area map

10.8 SSD Areal Rainfall Monthly Long Term Averages

Hydrological Area	Jan LTA mm	Feb LTA mm	Mar LTA mm	Apr LTA mm	May LTA mm	Jun LTA mm	Jul LTA mm	Aug LTA mm	Sep LTA mm	Oct LTA mm	Nov LTA mm	Dec LTA mm
Test Chalk	92.6	65.7	59.4	60.5	53.7	57.8	57.5	63.8	62.8	95.3	100.9	93.1
East Hampshire Chalk	102.7	72.1	62.7	63.5	54.4	62.1	60.5	71.4	70.2	105.8	112.8	105.3
West Sussex Chalk	104.6	73.7	59.5	59.1	54.4	59.4	60.9	73.0	74.4	108.8	114.8	113.2
East Sussex Chalk	96.4	66.9	53.8	49.9	51.2	55.6	57.3	67.6	65.3	101.2	110.6	106.9
Isle of Wight	93.5	66.9	55.4	52.6	47.9	50.6	47.8	59.7	65.9	102.2	107.4	105.6
Western Rother Greensand	110.6	77.5	61.9	64.1	56.4	59.6	57.9	73.1	73.7	111.7	118.1	115.1
Hampshire Tertiaries	95.4	66.7	58.1	57.8	49.8	56.3	51.2	64.7	65.2	97.3	105.1	99.4
Lymington	96.7	67.4	59.6	58.2	50.1	54.5	51.2	62.9	66.6	100.1	109.5	105.3
Sussex Coast	86.8	59.1	48.5	49.6	45.3	50.6	48.8	59.3	59.9	89.3	95.3	93.3
Arun	96.8	67.1	54.7	55.3	53.2	53.3	54.7	64.6	65.8	97.7	103.4	98.9
Adur	94.7	65.6	52.7	52.8	53.5	52.5	53.8	65.1	63.5	99.4	102.9	100.2
Ouse	97.7	67.7	53.9	51.2	53.4	54.9	57.5	67.4	64.7	104.6	105.9	105.4
Cuckmere	94.4	65.8	51.0	49.0	50.5	55.8	56.8	68.7	65.4	101.9	106.8	105.5
Pevensey Levels	89.5	62.7	49.5	47.6	48.1	51.8	56.3	64.6	62.9	96.3	103.0	102.9
SSD Average	96.8	67.7	56.9	56.5	52.0	56.0	55.3	66.0	66.2	100.5	106.6	102.4