Monthly water situation report: Solent and South Downs Area

Summary - March 2026

Solent and South Downs (SSD) had below average rainfall in March, receiving 58% (33mm) of long term average (LTA) of 57mm. Monthly mean river flows for March ranged from normal to notably high across SSD. End of month groundwater levels for March ranged from normal to notably high. Soils across SSD ended the month drier than the LTA for March. End of month reservoir stocks were above average at Ardingly Reservoir (Ouse) and average at Arlington Reservoir (Cuckmere).

1.1 Rainfall

SSD had below average rainfall in March, receiving 58% (33mm) of LTA (57mm). The East Hampshire Chalk areal unit received the highest monthly rainfall total with 68% (42mm) of LTA (63mm). This was followed closely by 67% (41mm) of LTA in the Western Rother Greensand unit. The majority of the SSD areal units were within the normal range with many of the coastal units below normal. The lowest rainfall total was received by the Pevensey Levels with 46% (23mm) of LTA (50mm). The Cuckmere (51% of LTA), Sussex Coast (52%), Lymington (52%) and Isle of Wight (54%) units also received below normal rainfall.

The highest rainfall was recorded throughout the River Test catchment (Test Chalk and Hampshire Tertiaries areal unit) and River Itchen catchment (East Hampshire Chalk unit). The highest daily totals were recorded on 12 March and represented around a third of the month's total rainfall. The highest daily total of 18 mm was recorded on 12 March at Broughton RG (Test Chalk), Testwood RG (Hampshire Tertiaries) and Otterbourne RG (East Hampshire Chalk). Romsey RG (Hampshire Tertiaries) recorded a total of 17mm on the same day.

Rainfall was concentrated into the first half of the month with around 80% of the month rain recorded between 1 and 15 March. The three wettest days (12, 6 and 10 March respectively) represented on average 60% of the total monthly rainfall. There were only seven wet days over the whole month.

March rainfall was not notable, but the January to March 3-month period has been the third wettest on record for these areal units:

- Test Chalk
- East Hampshire Chalk
- Hampshire Tertiaries
- Lymington
- Adur

The remaining areal units also ranked in the top 10 for the same period. SSD ranked the sixth wettest January to March on record.

October to March represents the winter recharge period in the hydrological calendar. Those six months have recorded exceptionally high rainfall totals over the whole of Hampshire and IOW and notably high rainfall over the majority of Sussex. The exceptions in Sussex where the Cuckmere and Pevensey Levels units which, while having lower rainfall, had rainfall totals in the above normal range. The October to March winter period ranks:

- The third wettest on record for the Adur areal unit,
- fifth wettest on record for Lymington and East Hampshire Chalk units
- sixth wettest on record for the Hampshire Tertiaries unit.

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

1.2 Soil moisture deficit and recharge

The soil moisture deficits (SMDs) across SSD are now occurring due to the below average rainfall in March and the start of the growing season. Soils across SSD ended the month drier than the LTA for March.

1.3 River flows

Monthly mean river flows for March ranged from normal to notably high across SSD.

Flows were normal on the:

- River Lymington at Brockenhurst
- River Wallington at North Fareham
- River Rother at Iping Mill
- River Arun at Alfoldean
- River Adur at Sakeham
- River Ouse at Goldbridge
- River Cuckmere at Cowbeech
- River Medina at Blackwater

Flows were above normal on the:

- River Test at Chilbolton

Flows were notably high on the:

- River Test at Broadlands
- River Itchen at Allbrook and Highbridge
- River Meon at Mislingford

The monthly mean flows for March ranked the:

- fifth highest for the River Itchen at Allbrook and Highbridge since 1959

- sixth highest for the River Test at Chilbolton since 1989
- ninth highest for River Test at Broadlands and River Meon at Mislingford both since 1958.

1.4 Groundwater levels

End of month groundwater levels for March ranged from normal to notably high.

Groundwater levels were normal at:

- Carisbrooke Castle (Isle of Wight)
- Harting Common (Western Rother Greensand)

Groundwater levels were above normal at:

- Youngwoods Copse (Isle of Wight)
- Catherington (East Hampshire Chalk)
- Preston Candover (East Hampshire Chalk)
- Beeding Hill (West Sussex Chalk)
- Cornish Farm (East Sussex Chalk)

Groundwater levels were notably high at:

- Lopcombe Corner (Test Chalk)
- Clanville Gate (Test Chalk)
- West Meon (East Hampshire Chalk)
- Chilgrove (West Sussex Chalk)
- Houndean Bottom (East Sussex Chalk)

The groundwater levels for March were the:

- sixth highest on record at West Meon Hut (1986)
- seventh highest on record at Houndean Bottom (1977)
- eighth highest on record at Lopcombe Corner (1963)
- ninth highest on record at Catherington (1969) and Preston Candover (1975)

1.5 Reservoir stocks

End of month reservoir stocks were above average at Ardingly Reservoir (Ouse) and average at Arlington Reservoir (Cuckmere). Ardingly Reservoir was at 100% of total capacity (LTA 97%), and Arlington Reservoir was at 99.1% of total capacity (LTA 99.0%).

1.6 Environmental impact

At the start of March there were no licence restrictions in force. By the end of the month two licence restrictions were in place. These included:

- Cessation of abstraction for one licence on the River Lymington
- Restriction on abstraction rates for one licence on the River Meon

No new groundwater flood alerts were issued in March. At the start of March there were 19 groundwater alerts in force, all issued during the previous two months. However, throughout March alerts were removed as the situation improved. At the end of March only six groundwater flood alerts remained in force.

County	No. of individual areas	Area where groundwater flood alerts were issued	Removal Date
Hampshire	5	• Twyford and Hensting • Bishops Sutton • Hursley • Villages surrounding Andover • Deane and Ashe in North Hampshire	IN FORCE
	12	• Littleton, Headbourne, Kings and Martyr Worthy, Easton and Chilland	9 March
		• Vernham Dean, Upton and the Bourne Valley • Kings Somborne and Little Somborne • The Meon Valley from East Meon to Soberton • Denmead	17 -18 March
		• Finchdean, Dean Lane End and Rowlands Castle • The Candovers and Old Alresford • Hambledon	23 -25 March
		• Pitton, West Tytherley, Nether Wallop and Broughton • Bramdean and Cheriton	30 March
Sussex	1	• West Dean, Singleton, Charlton, East Dean and Chilgrove	In force
	2	• Patcham • Denton	9 March
		• Upper River Ems Valley	23 March

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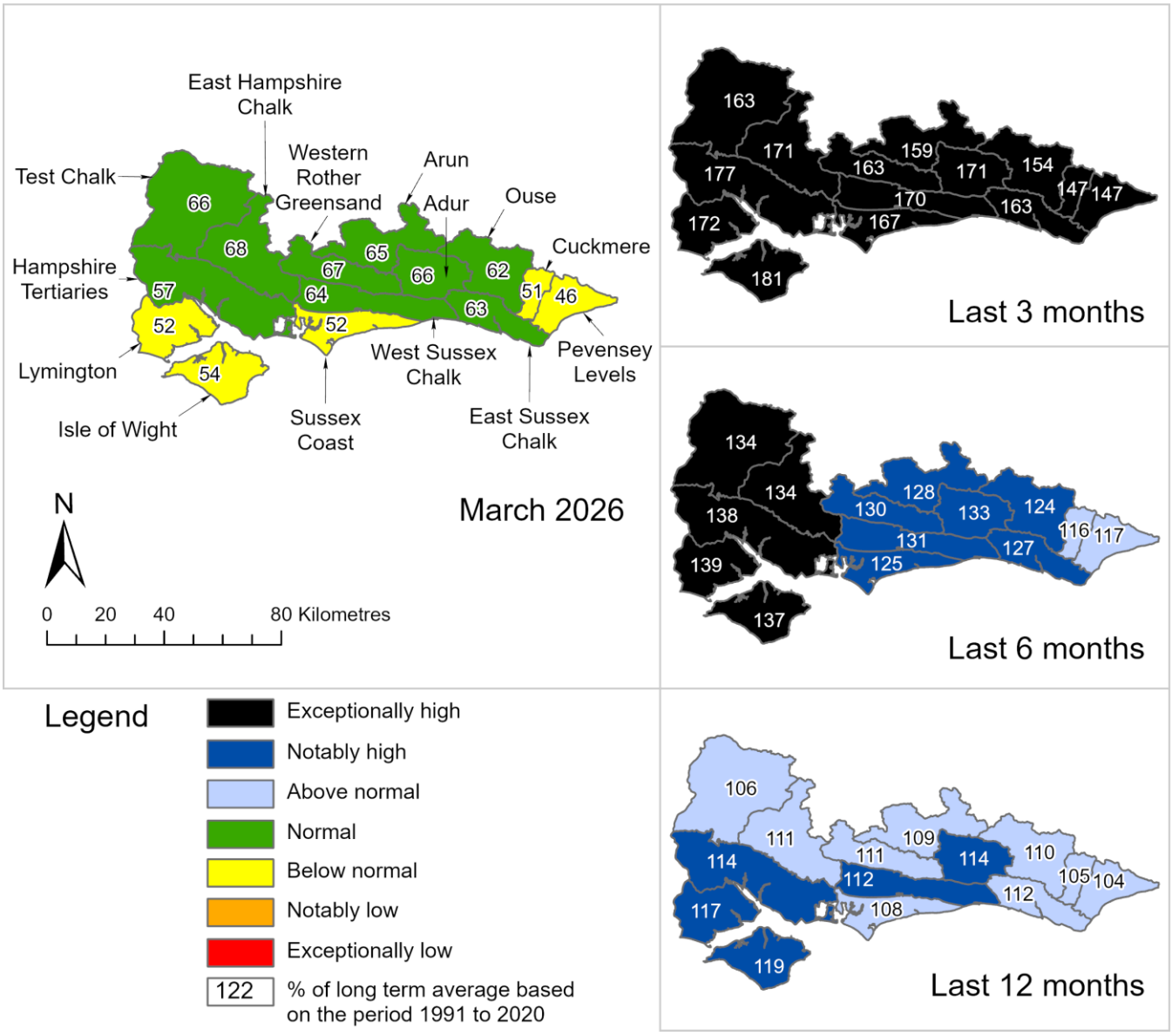
2. Rainfall

2.1 Rainfall map

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

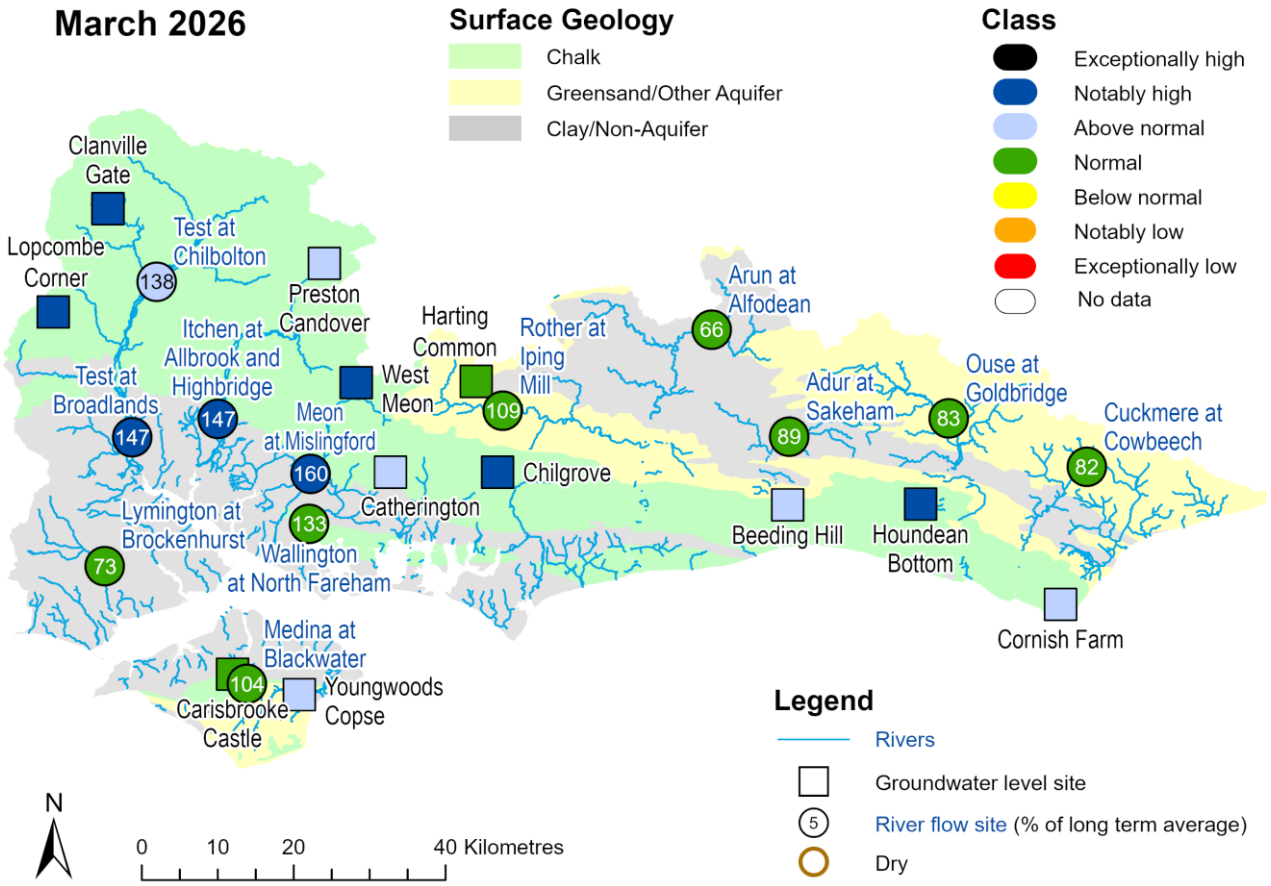


Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded 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 March 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic March monthly means. Table available in the appendices with detailed information.

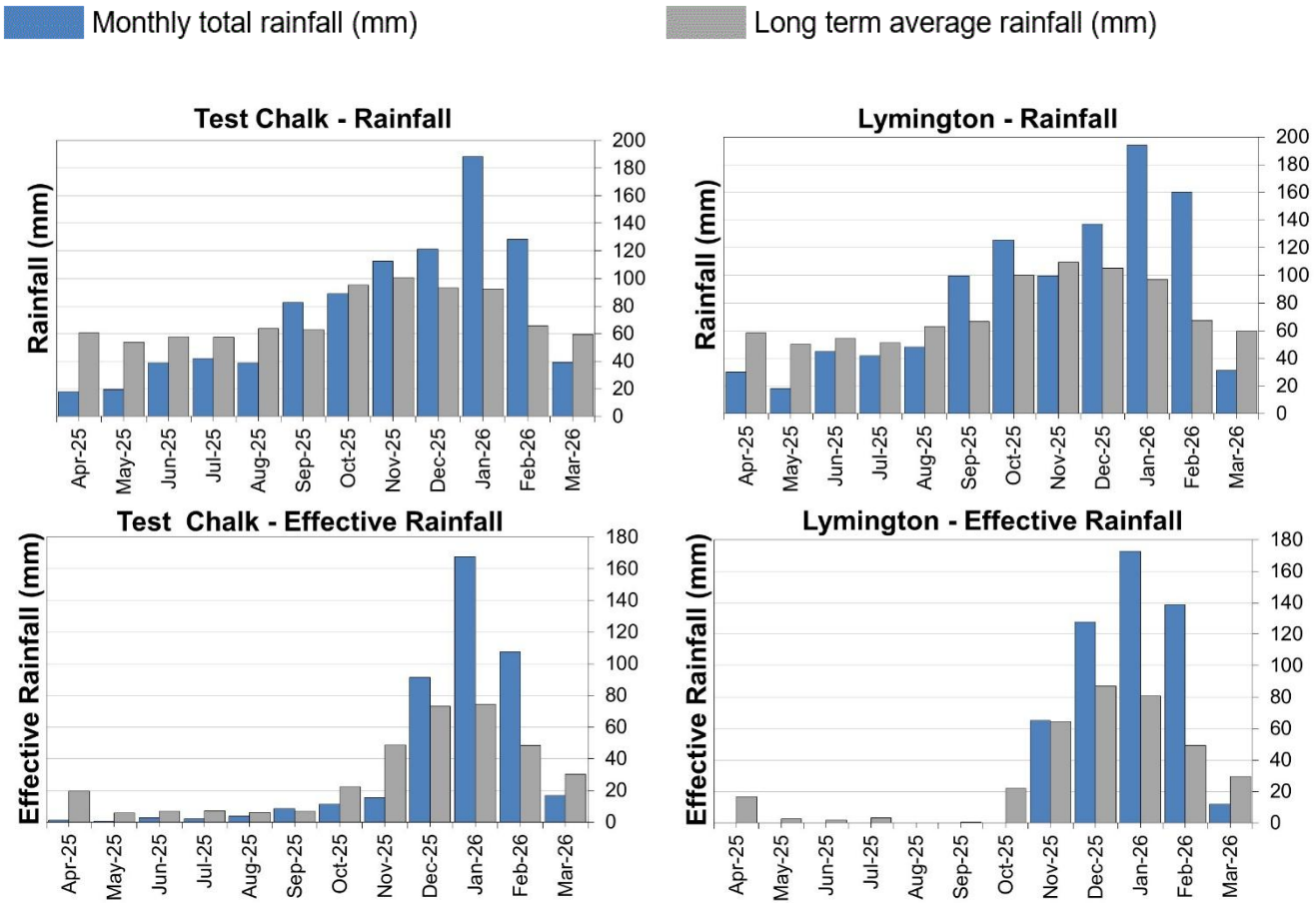


(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2026. Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2026.

4 West Hampshire

4.1 West Hampshire Rainfall and effective rainfall charts

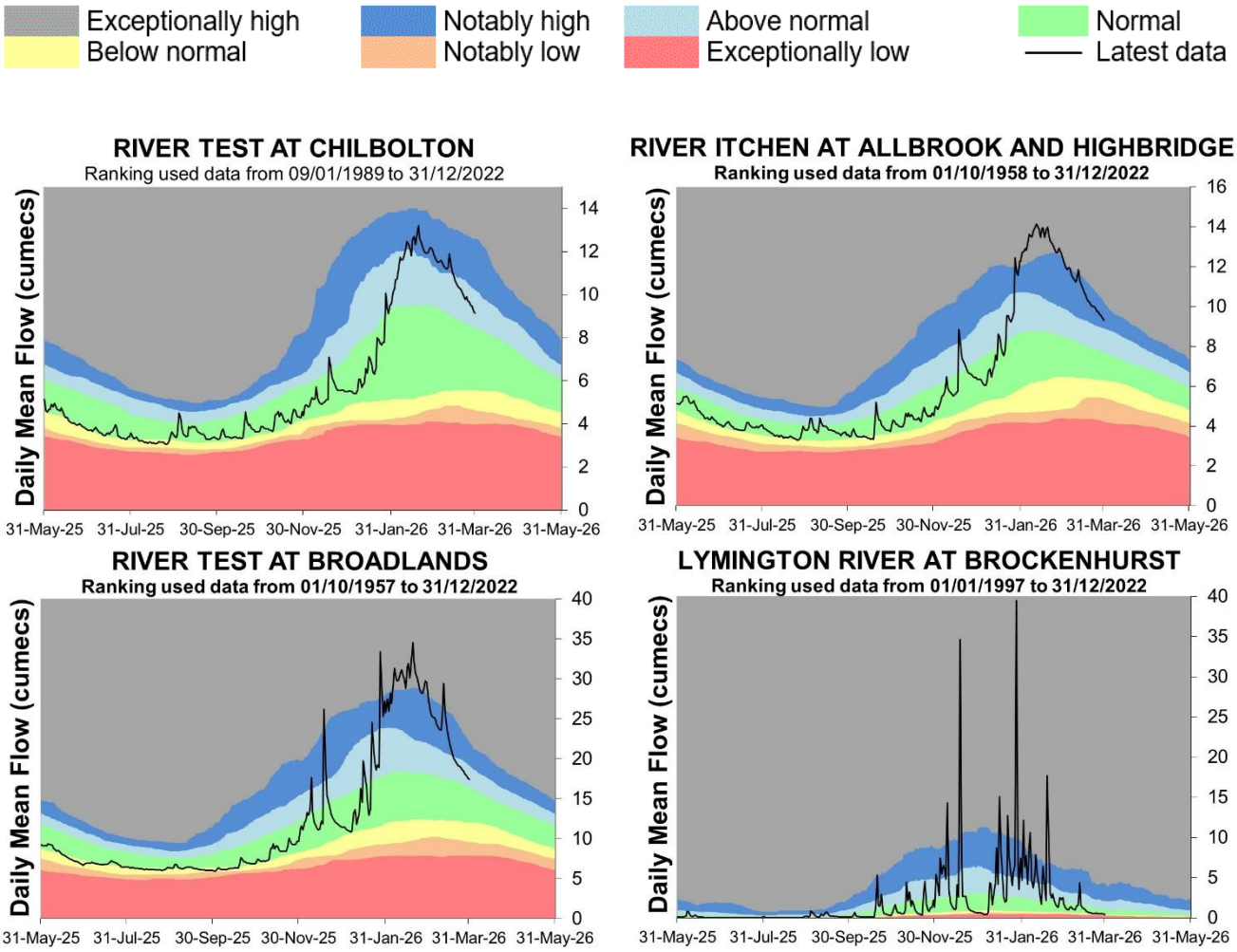
Figure 4.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

4.2 West Hampshire River flow charts

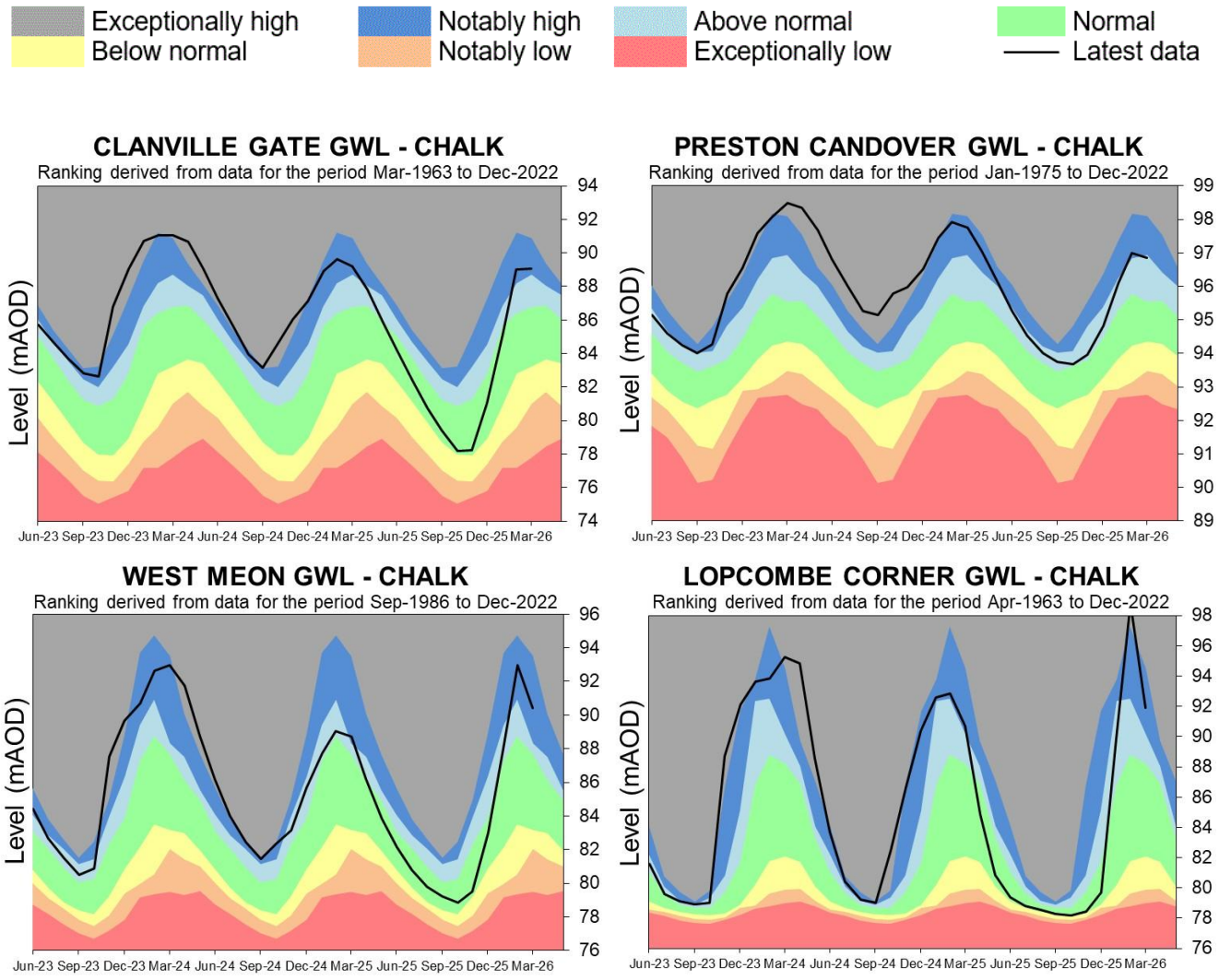
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency, 2026.

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 and long term maximum and minimum levels.

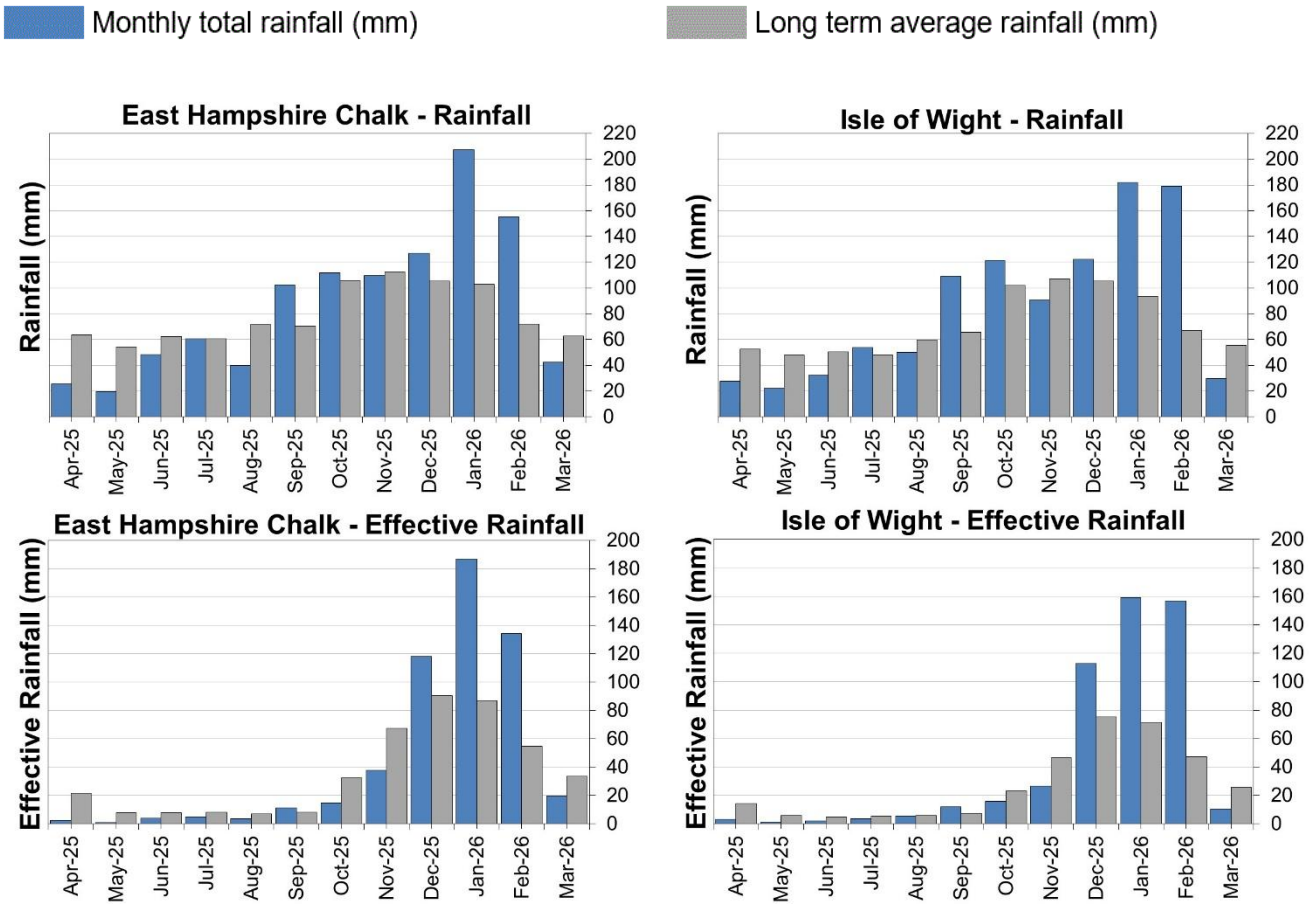


Source: Environment Agency, 2026.

5 East Hampshire and Isle of Wight

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

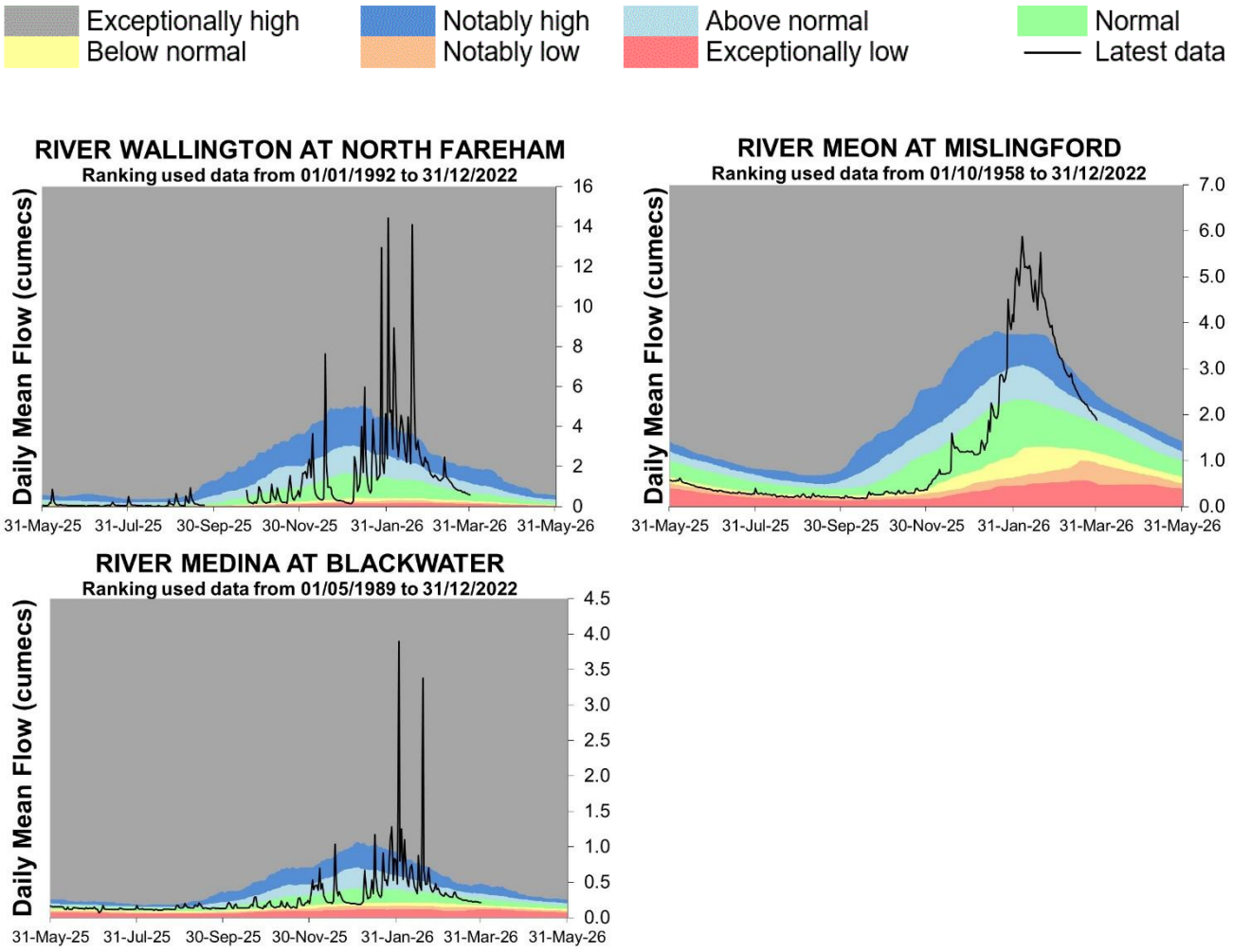
Figure 5.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

5.2 East Hampshire and Isle of Wight River flow charts

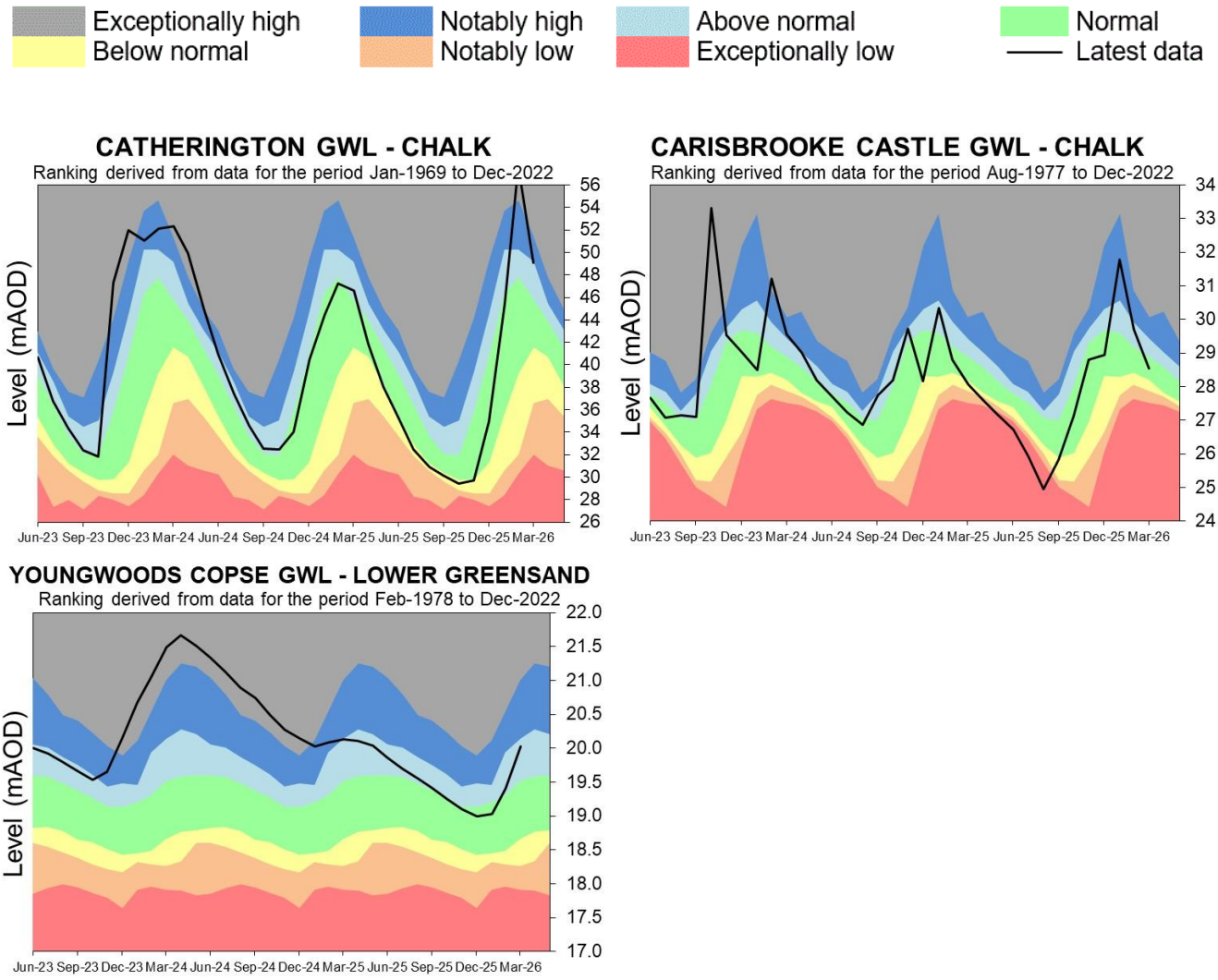
Figure 5.2 Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency, 2026.

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 and long term maximum and minimum levels.

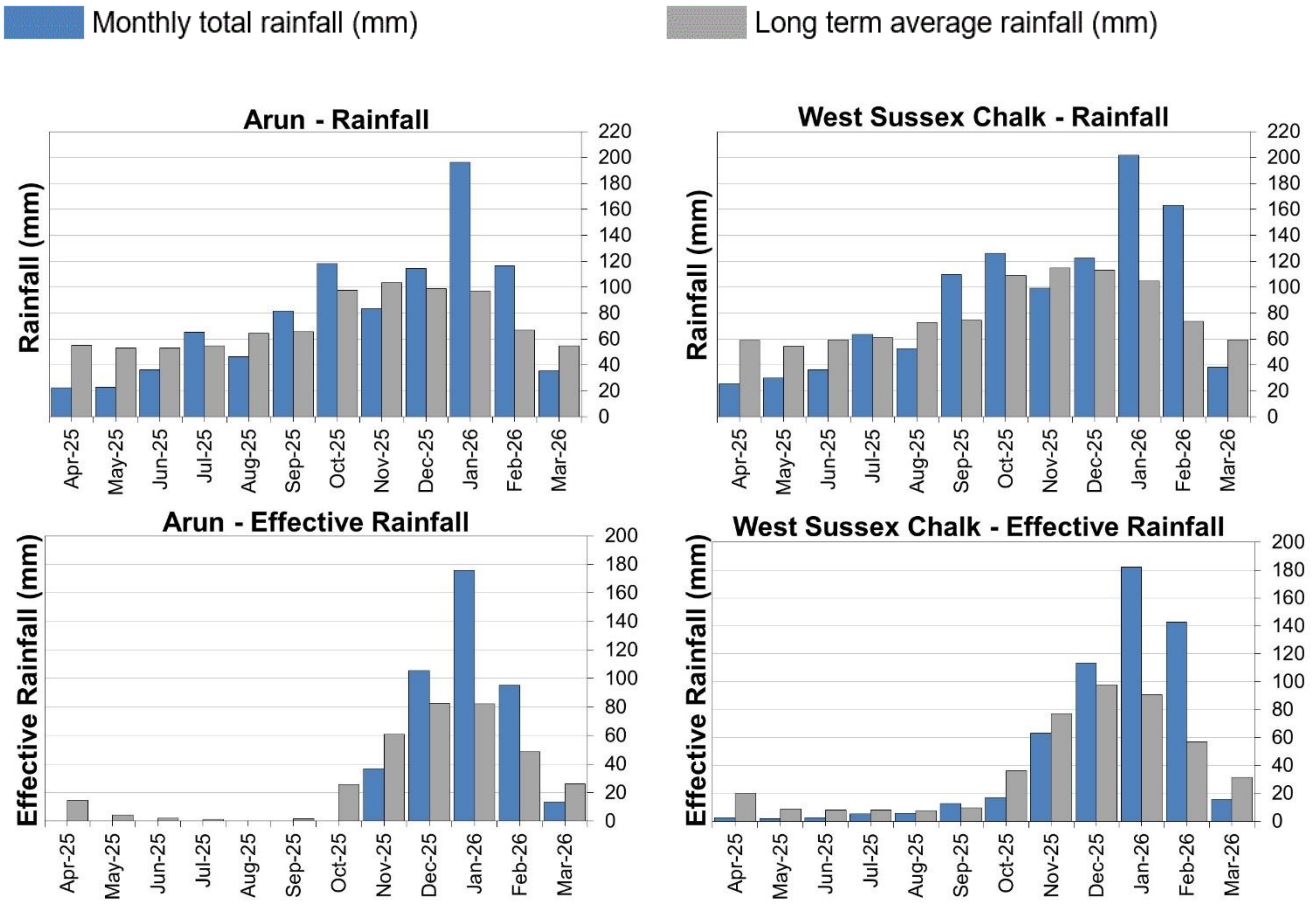


Source: Environment Agency, 2026.

6 West Sussex

6.1 West Sussex Rainfall and Effective Rainfall charts

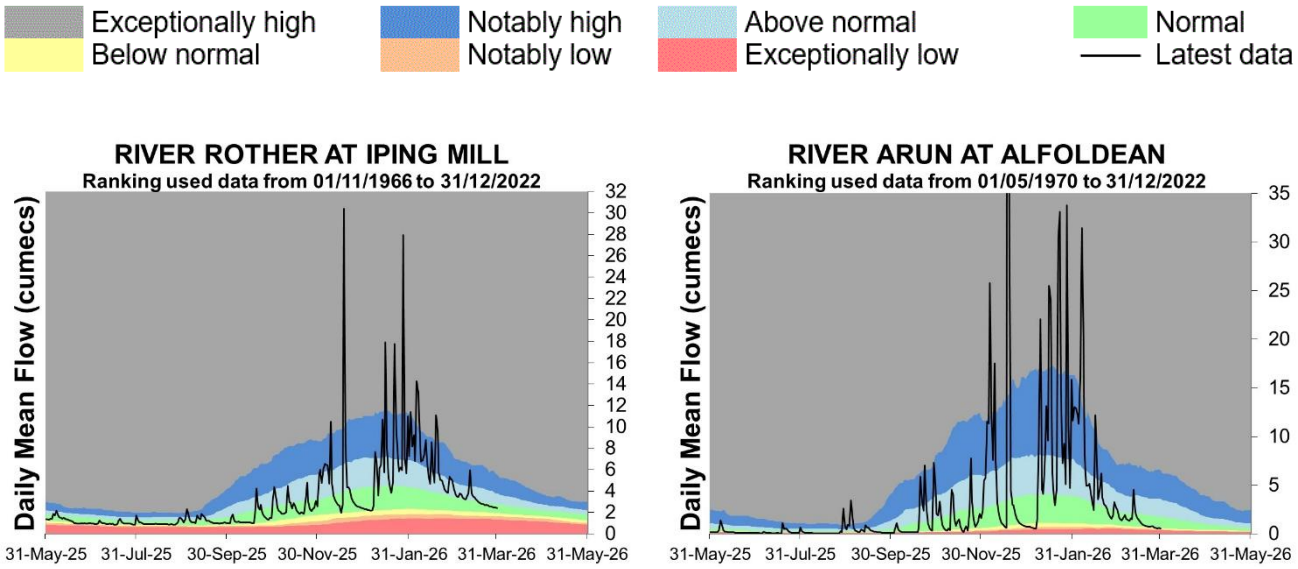
Figure 6.1: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average.



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

6.2 West Sussex River flow charts

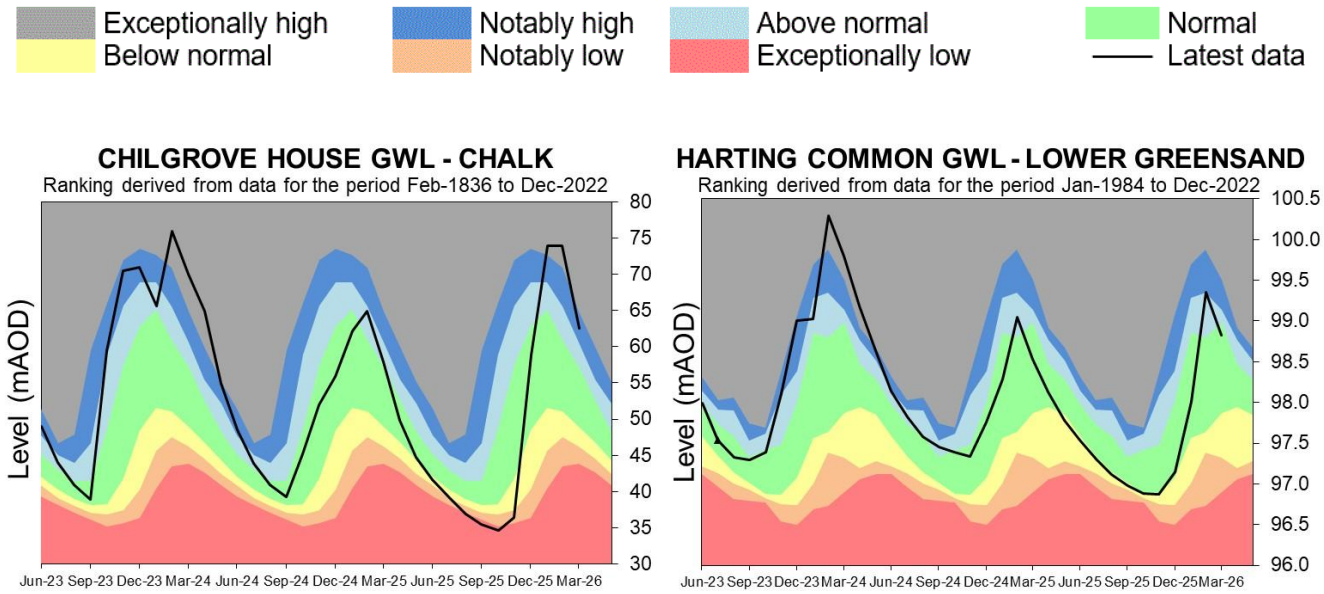
Figure 6.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency, 2026.

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 and long term maximum and minimum levels.

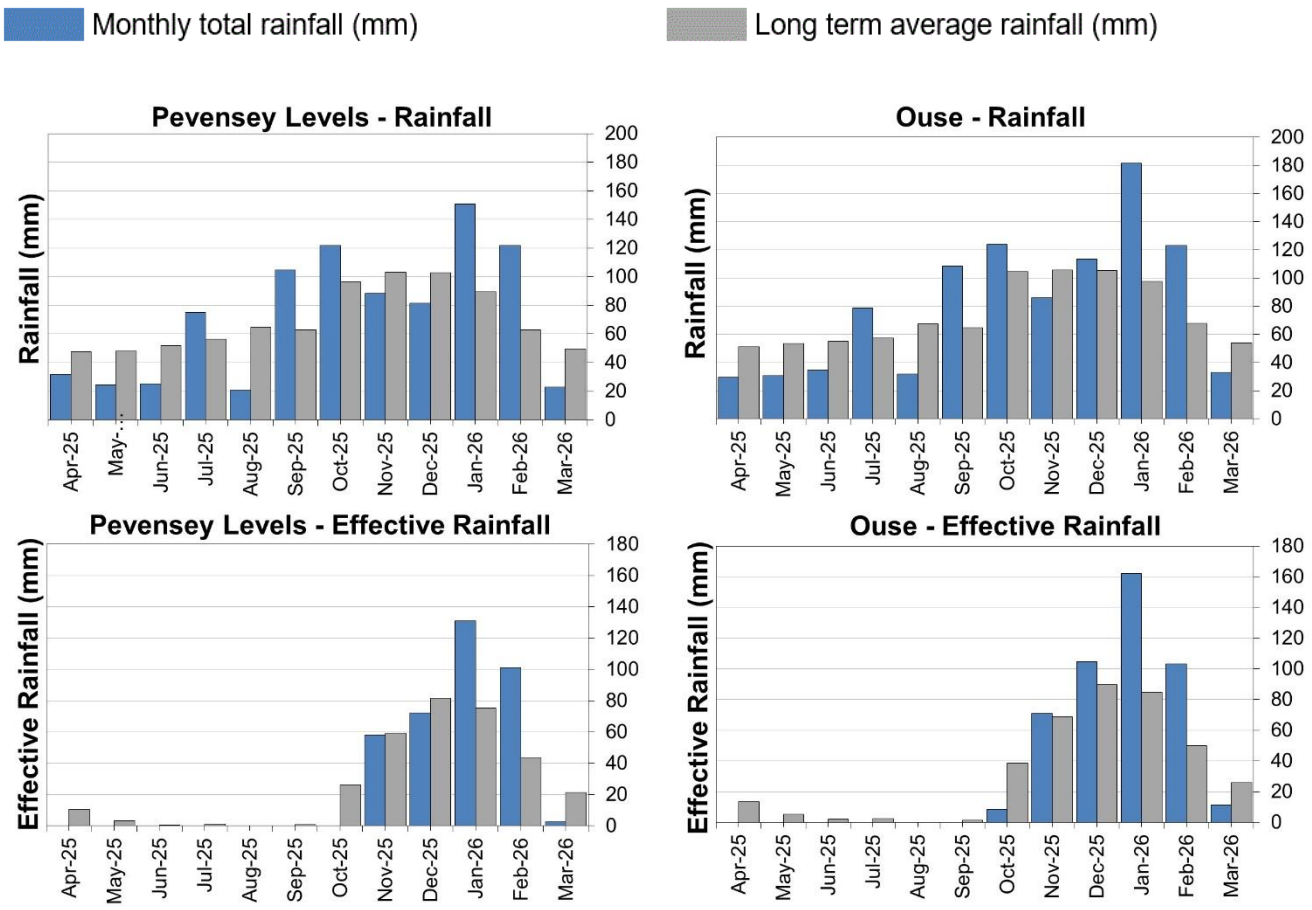


Source: Environment Agency, 2026.

7 East Sussex

7.1 East Sussex Rainfall and Effective Rainfall charts

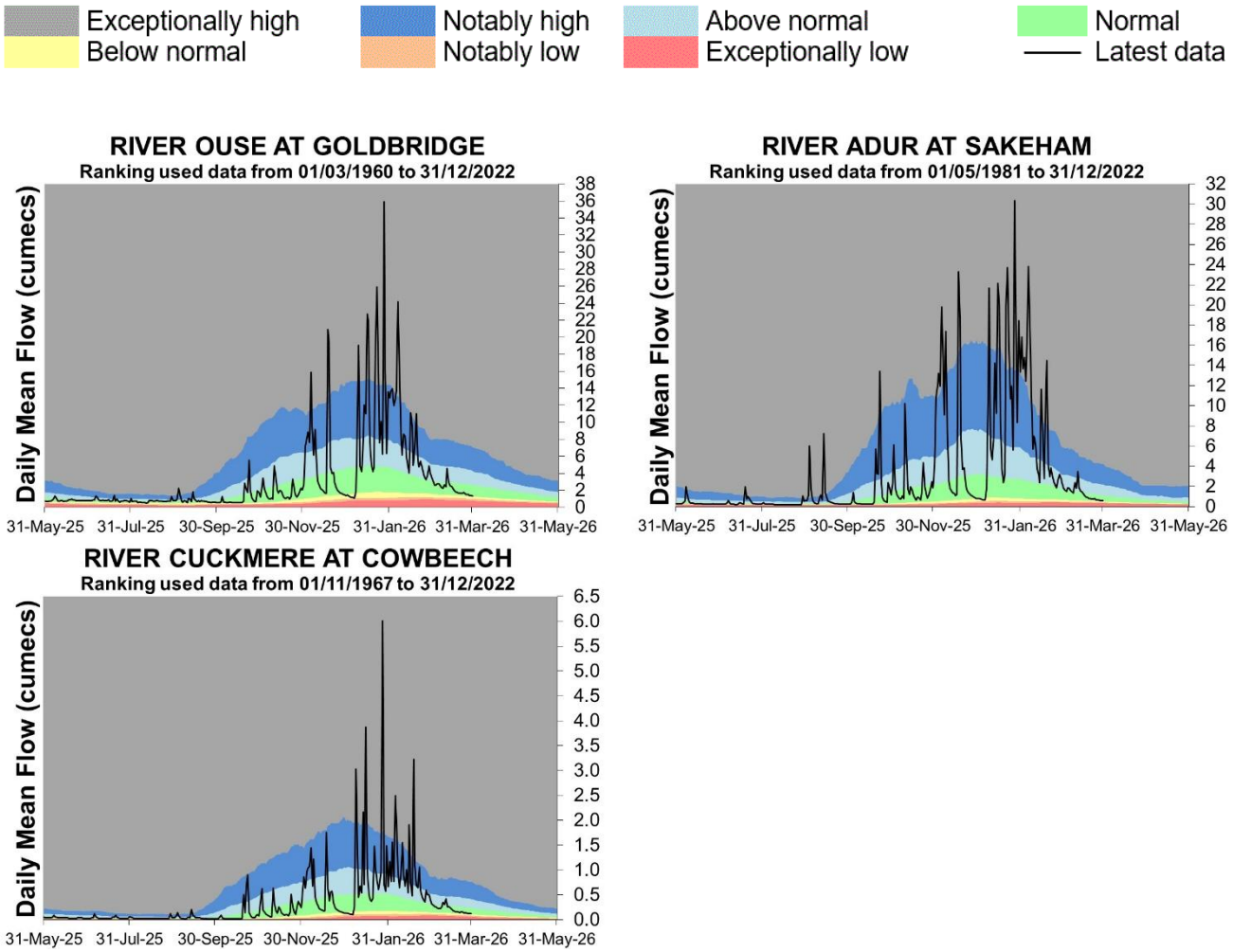
Figure 7.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

7.2 East Sussex River flow charts

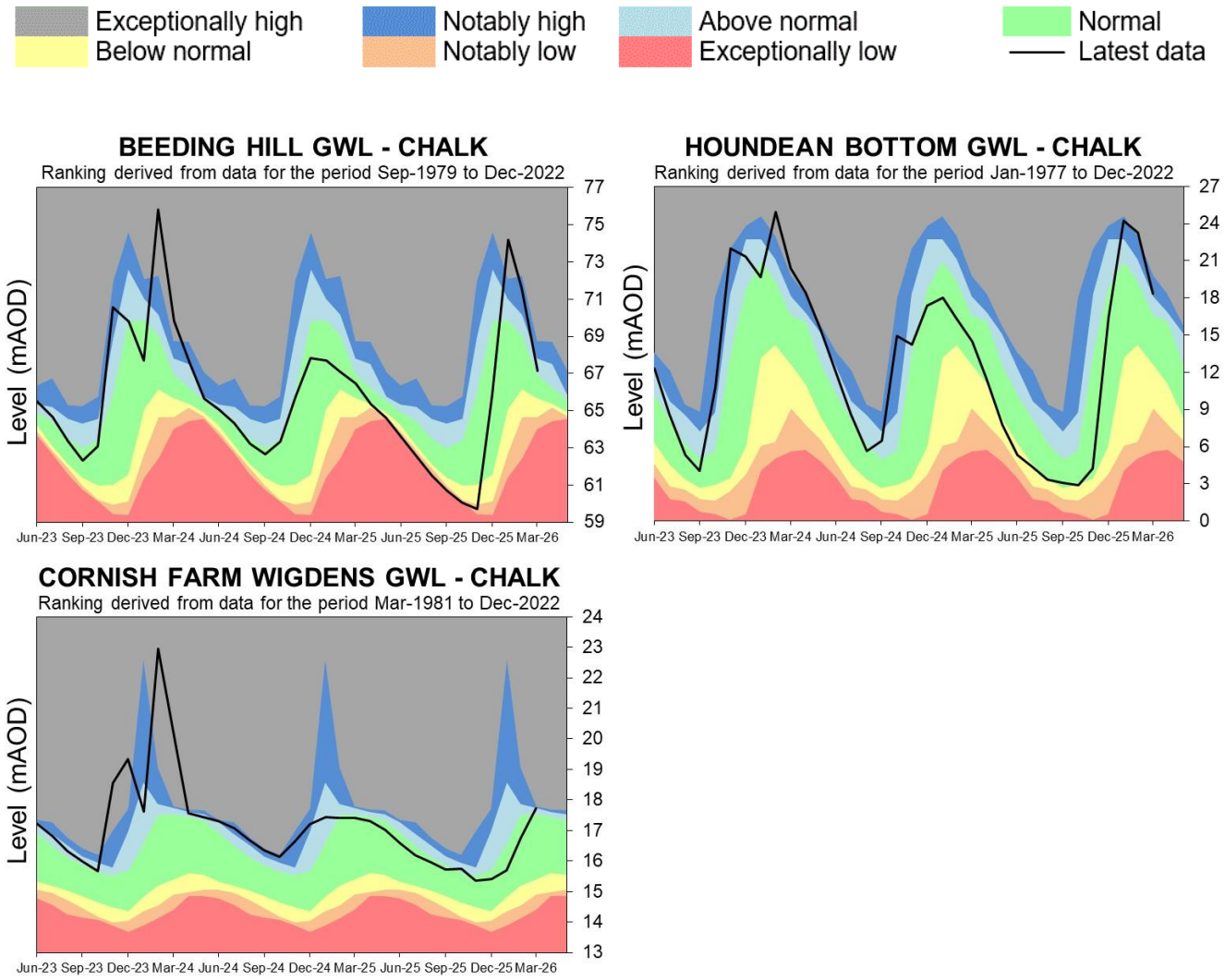
Figure 7.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency, 2026.

7.3 East Sussex Groundwater level charts

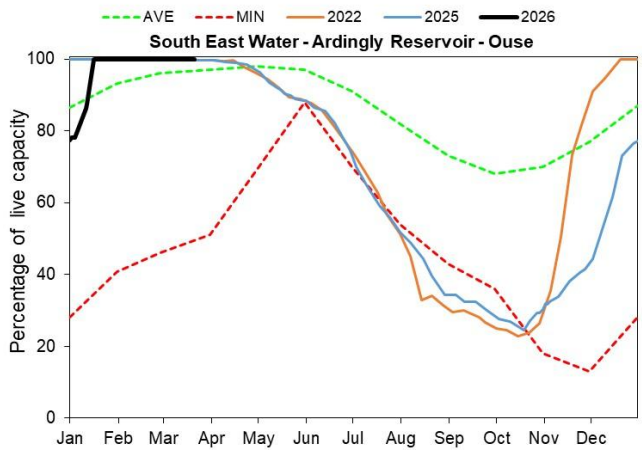
Figure 7.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.

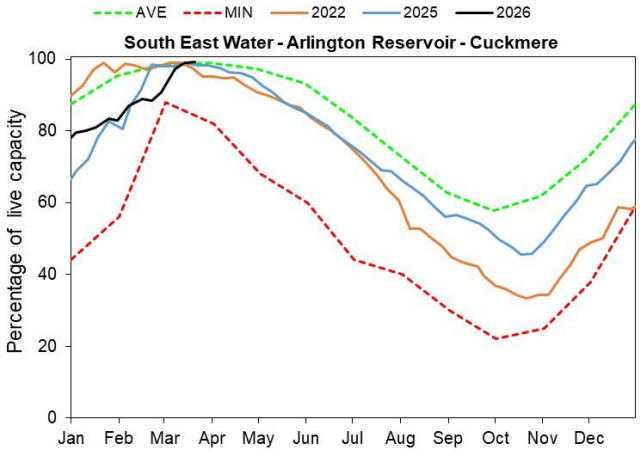


Source: Environment Agency, 2026.

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^{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).

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

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

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) 30 day Total	Rainfall March as %LTA	Effective Rainfall (mm) 30 day Total	Effective Rainfall March as %LTA	Soil Moisture Deficit (SMD) Day 30	SMD End of March LTA
Test Chalk	39	66	17	56	17	8
East Hampshire Chalk	42	68	20	59	16	8
West Sussex Chalk	38	64	15	49	15	8
East Sussex Chalk	34	63	11	45	16	8
Isle of Wight	30	54	11	41	22	10
Western Rother Greensand	41	67	19	56	16	8
Hampshire Tertiaries	33	57	13	47	20	9
Lymington	31	52	12	40	20	8
Sussex Coast	25	52	4	21	20	9
Arun	35	65	14	51	17	8
Adur	35	65	13	52	16	8
Ouse	33	61	11	43	16	8
Cuckmere	26	51	6	23	16	8
Pevensey Levels	23	46	3	13	19	8
SSD Average	33	60	12	44	18	8

10.2 Seasonal summary table of rainfall and effective rainfall

Winter season: 01/10/2025 to 31/03/2026

Hydrological Area	Seasonal Rainfall (mm) Total	Seasonal Rainfall as % LTA	Seasonal Effective Rainfall (mm) Total	Seasonal Effective Rainfall as % LTA
Test Chalk	678	134	425	143
East Hampshire Chalk	753	134	531	145
West Sussex Chalk	752	131	553	142
East Sussex Chalk	680	127	462	141
Isle of Wight	726	137	489	169
Western Rother Greensand	774	130	560	138
Hampshire Tertiaries	718	138	489	158
Lymington	747	139	529	159
Sussex Coast	591	125	355	146
Arun	662	128	441	135
Adur	686	132	491	148
Ouse	662	124	477	133
Cuckmere	611	116	428	122
Pevensey Levels	587	117	375	122
SSD Average	688	129	472	142

10.3 Rainfall banding table

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

10.4 River flows table

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

10.5 Groundwater table

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

10.6 Abstraction licence flow constraints

Number of flow constraints in force between 1 to 2 March 2026	Number of flow constraints in force between 3 to 9 March 2026	Number of flow constraints in force between 10 to 16 March 2026	Number of flow constraints in force between 17 to 23 March 2026	Number of flow constraints in force between 24 to 31 March 2026
0	0	0	0	2

10.7 Solent and South Downs Areal Rainfall Units 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