Monthly water situation report: Solent and South Downs Area

Summary - January 2026

Solent and South Downs (SSD) had above average rainfall in January. SSD received 193% (186mm) of long term average (LTA) of 96.8mm. Monthly mean river flows and end of month groundwater levels for January ranged from normal to exceptionally high across SSD. Soils ended the month wetter than the average for January across SSD. End of month reservoir stocks were above average at Ardingly Reservoir (Ouse) and below average at Arlington Reservoir (Cuckmere).

1.1 Rainfall

SSD had above average rainfall in January, receiving 193% (186mm) of LTA (96.8mm). All areal rainfall units in SSD had exceptionally high rainfall totals in January, except the Pevensey Levels unit, which was in the notably high range.

The Adur areal unit received the highest monthly rainfall total with 216% (204.3mm) of LTA (94.7mm). The Test Chalk, East Hampshire Chalk, Hampshire Tertiaries, Lymington and Arun areal units also received over 200% of LTA, with rainfall between 188mm and 207mm.

The Sussex Coast, East Sussex Chalk, Ouse, Cuckmere, and Pevensey Levels hydrological areal units in southeast part of SSD received the lower rainfall totals. Nevertheless, even these units had rainfall between 151 and 182mm and counted for 168 to 185% of LTA. The Cuckmere and the Pevensey Levels areal units received the lowest rainfall totals with 168% (159mm) of LTA (94.4mm) and 169% (151mm) of LTA (89.5mm).

Over half of the monthly rainfall total was recorded on the five wettest days of the month: 8, 15, 20, 21 and 26 January. Storm Chandra swept across the UK from 26 to 27 January and brought a spell of severe weather with strong winds and persistent heavy rainfall. The highest daily totals were all recorded on 26 January with 43mm at Lyndhurst RG (Lymington) and 40mm at Testwood RG (Hampshire Tertiaries).

It has been the second wettest January on record for SSD and also for the areal units:

- Test Chalk,
- East Hampshire Chalk
- Hampshire Tertiaries
- West Sussex Chalk
- Western Rother Greensand
- Arun
- Adur

The January rainfall totals in the remaining 7 areal units in SSD ranked in the top 10 wettest on record.

November to January rainfall and August to January rainfall rank as fifth wettest on record for the Adur areal unit and 10th wettest for Lymington.

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

1.2 Soil moisture deficit and recharge

Soil moisture deficits (SMDs) have fallen across the SSD in response to the exceptionally high rainfall. Soils across SSD ended the month wetter than the LTA for January and all areal units are no longer in deficit.

1.3 River flows

Monthly mean river flows for January ranged from normal to exceptionally high across SSD.

Flows were normal on the:

- River Test at Chilbolton

Flows were above normal on the:

- River Test at Broadlands
- River Itchen at Allbrook and Highbridge
- River Meon at Mislingford
- River Wallington at North Fareham
- River Medina at Blackwater

Flows were notably high on the:

- River Cuckmere at Cowbeech

Flows were exceptionally high on the:

- River Lymington at Brockenhurst
- River Rother at Iping Mill
- River Arun at Alfoldean
- River Adur at Sakeham
- River Ouse at Goldbridge

The monthly mean flows for January were:

- highest on record for the River Adur at Sakeham (1967)
- second highest on record for the River Arun at Alfoldean (1970) and the River Lymington at Brockenhurst (1960)
- third highest for the River Ouse at Gold Bridge (1960)
- fourth highest for the River Rother at Iping Mill (1966)
- fifth highest for the River Cuckmere at Cowbeech (1968)

1.4 Groundwater levels

End of month groundwater levels for January ranged from normal to exceptionally high.

Groundwater levels were normal at:

- Clanville Gate (Test Chalk)
- Youngwoods Copse (Isle of Wight)
- Catherington (East Hampshire Chalk)
- Harting Common (Western Rother Greensand)
- Cornish Farm (East Sussex Chalk)

Groundwater levels were above normal at:

- Lopcombe Corner (Test Chalk)
- Preston Candover (East Hampshire Chalk)
- West Meon (East Hampshire Chalk)

Groundwater levels were notably high at:

- Carisbrooke Castle (Isle of Wight)
- Houndean Bottom (East Sussex Chalk)

Groundwater levels were exceptionally high at:

- Chilgrove (West Sussex Chalk)
- Beeding Hill (West Sussex Chalk)

The exceptionally high groundwater levels for January were the highest on record at Beeding Hill since 1979, and seventh highest at Chilgrove since 1836. The notably high levels for January were the third highest at Carisbrooke Castle since 1977, and fifth highest at Houndean Bottom since 1977.

1.5 Reservoir stocks

End of month reservoir stocks were above average at Ardingly Reservoir (Ouse) and below average at Arlington Reservoir (Cuckmere). Ardingly Reservoir was at 100% of total capacity (LTA 93%), and Arlington Reservoir was at 83% of total capacity (LTA 95.4%).

1.6 Environmental impact

1.6.1 Abstraction licence restriction

At the start of January there were 6 licence restrictions in force, which increased to 7 licence restrictions in the second week, but by the end of the month there were no licence restrictions in place. Over the month the restrictions included:

- one public water supply (PWS) licence on the Ouse under drought order conditions
- one PWS licence on the River Ems
- one licence on the Western Rother
- one licences on the River Meon,
- one licence on the River Hamble
- one licence on the River Wallington
- one licence on the Sowley Stream

1.6.2 Flood Alerts and Warnings in Force

Flood Alerts were issued over most of SSD between 8 to 31 January (based on date of first issue).
Fluvial flood alerts were issued for 34 individual areas and some repeatedly, so that 72 fluvial flood alerts for were issued. At the end of the month, 14 flood alerts were still in place.

No. of individual areas	County	Area where fluvial flood alerts were issued
16	Hampshire, issued between: 8 and 30 January	River Itchen: Mansbridge and Riverside Park, Monks Brook River Test: River Blackwater, River Dun, Romsey Tadburn Lake, The Wallops New Forest: Danes Stream, Bartley Water, Lymington River River Meon: Upper Meon, Lower Meon River Ems: Bridge Road, Emsworth River Alver River Hamble River Wallington Tilmore Brook Petersfield
4	Isle of Wight, issued between: 22 and 27 January	Eastern Yar Lukely Brook St Johns, Ryde River Medina
14	Sussex, issued between: 8 and 30 January	Lower River Ems River Rother: Western Rother, River Lox Arun: Upper Arun, Lower Arun River Adur: River Adur West Branch, River Adur East Branch River Ouse: Upper Ouse, River Uck Cuckmere River Combe Haven: Combe Haven, Hollington Stream Langney Haven, Polegate and Wannock

Seven groundwater flood alerts issued in January starting on 26 January and all were in place at the end of the month.

No. of individual areas	County	Area where groundwater flood alerts were issued
4	Hampshire, issued between: 26 and 31 January	– The Meon Valley from East Meon to Soberton, – Hambledon – Finchdean, Dean Lane End and Rowlands Castle – Kings Somborne and Little Somborne
3	Sussex, issued between: 28 and 31 January	– Upper River Ems Valley – West Dean, Singleton, Charlton, East Dean and Chilgrove – Denton

Between 9 January to 28 January 35 fluvial flood warnings were issued for 24 individual areas. Most of the warnings, 22, were issued on 27 January in response to Storm Chandra. Two warnings were still in place at the end of the month.

No. of individual areas	County	Area where fluvial flood warnings were issued
12	Hampshire, issued between: 21 and 27 January	Test: Landford to Wade Bridge (River Blackwater), West Dean to Dunbridge, Halterworth to Romsey Town Centre Itchen: Chandlers Ford to Swaythling, Mansbridge and Woodmill New Forest: Ashley and Milford on Sea (Danes Stream), Brockenhurst and Boldre (Lymington), Rushington and Eling (Bartley Water) Meon: Wickham, East Meon to Mislingford Hamble: Waltham Chase, Durley Mill and Botley Peterfield streams: Tilmore Brook through central Petersfield
3	Isle of Wight, issued on: 27 January	Medina: Blackwater and Newport Lukely Brook: Carisbrooke and Hunny Hill Gurnard Luck: Gurnard
9	Sussex, issued between: 9 and 28 January	Arun: Pulborough Rother: Fittleworth, Lodsbridge to Shopham Bridge Adur: Mock Bridge near Shermanbury Ouse: Barcombe Mills, Lindfield Bridge, Freshfield Bridge to Sharpsbridge Cuckmere: Alfriston, Hellingly and Horsebridge

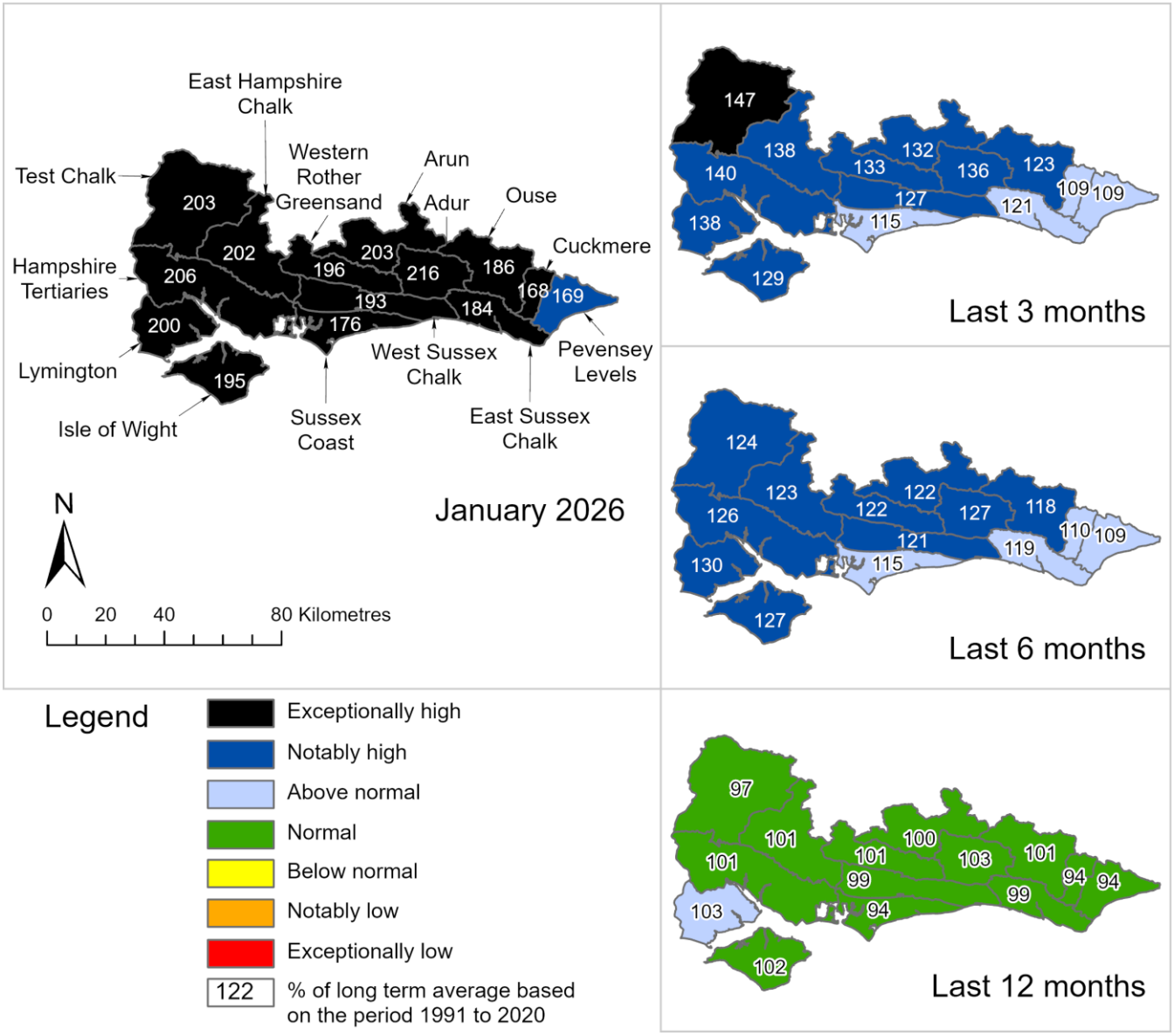
Author: HydrologySSD@Environment-agency.gov.uk

Contact Details: 03708 506 506

2. Rainfall

2.1 Rainfall map

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

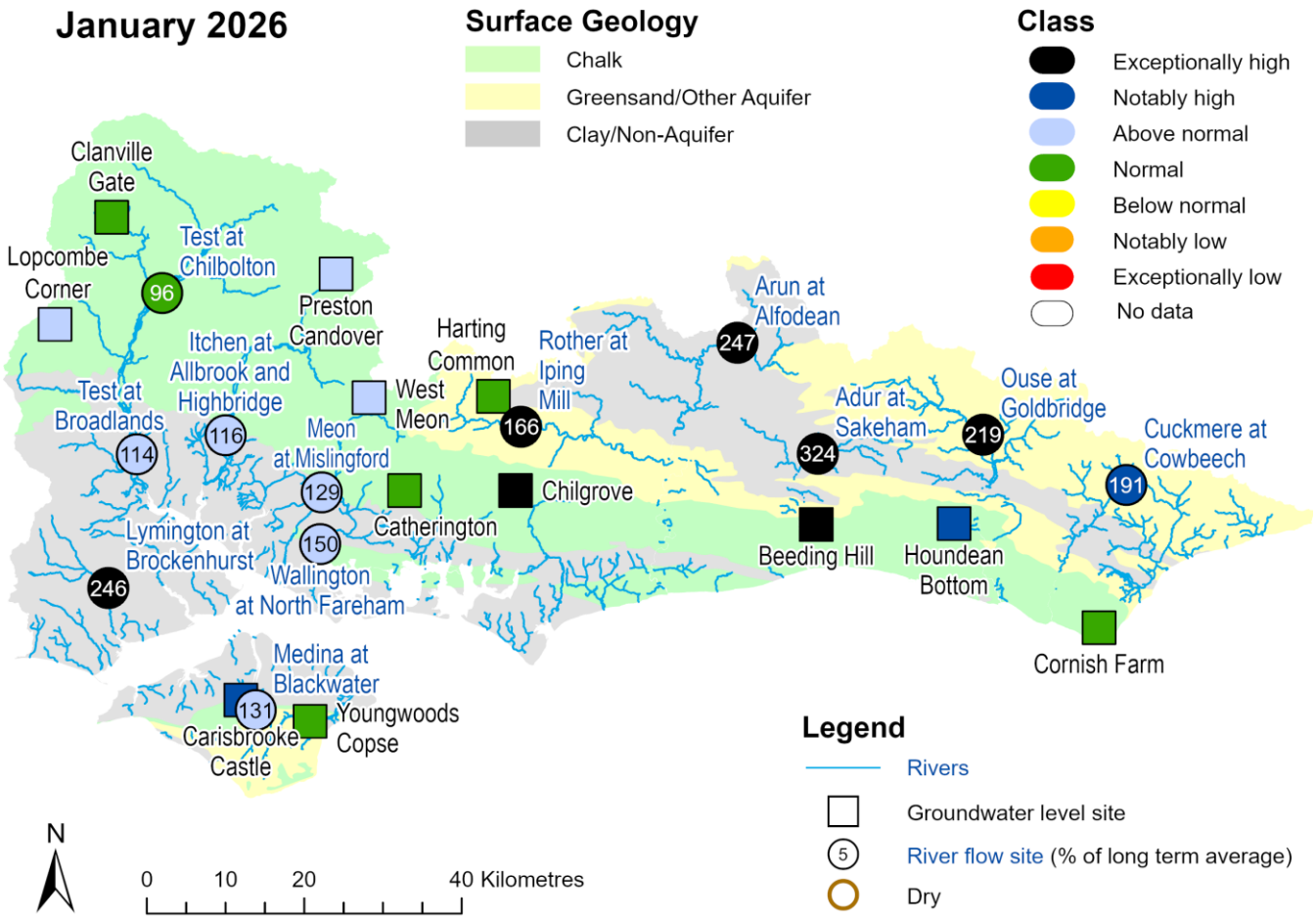


Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded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

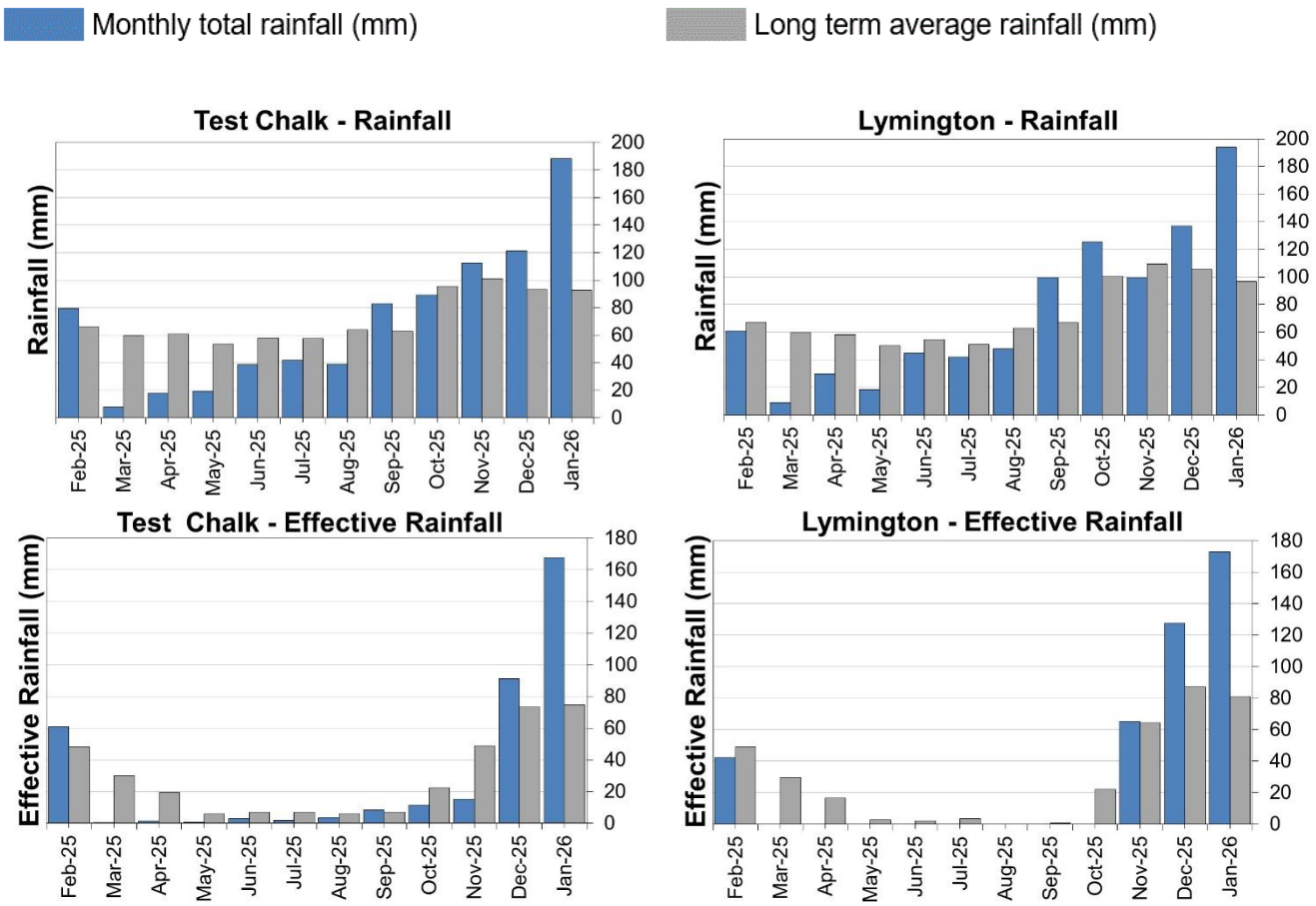
Figure 3.1: Monthly mean river flow and groundwater levels at our indicator sites for January 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic January monthly means. Table available in the appendices with detailed information.



4 West Hampshire

4.1 West Hampshire Rainfall and effective rainfall charts

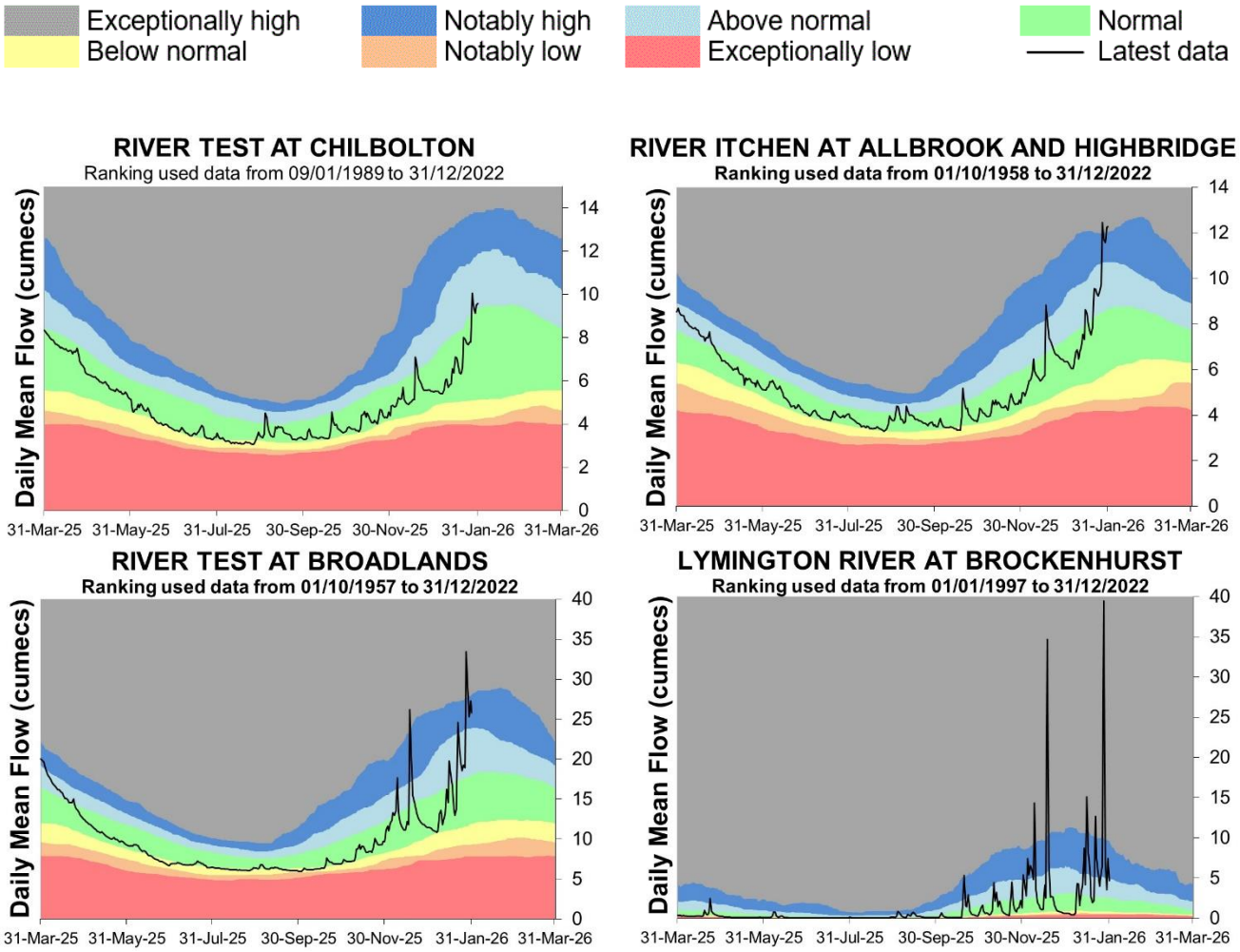
Figure 4.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

4.2 West Hampshire River flow charts

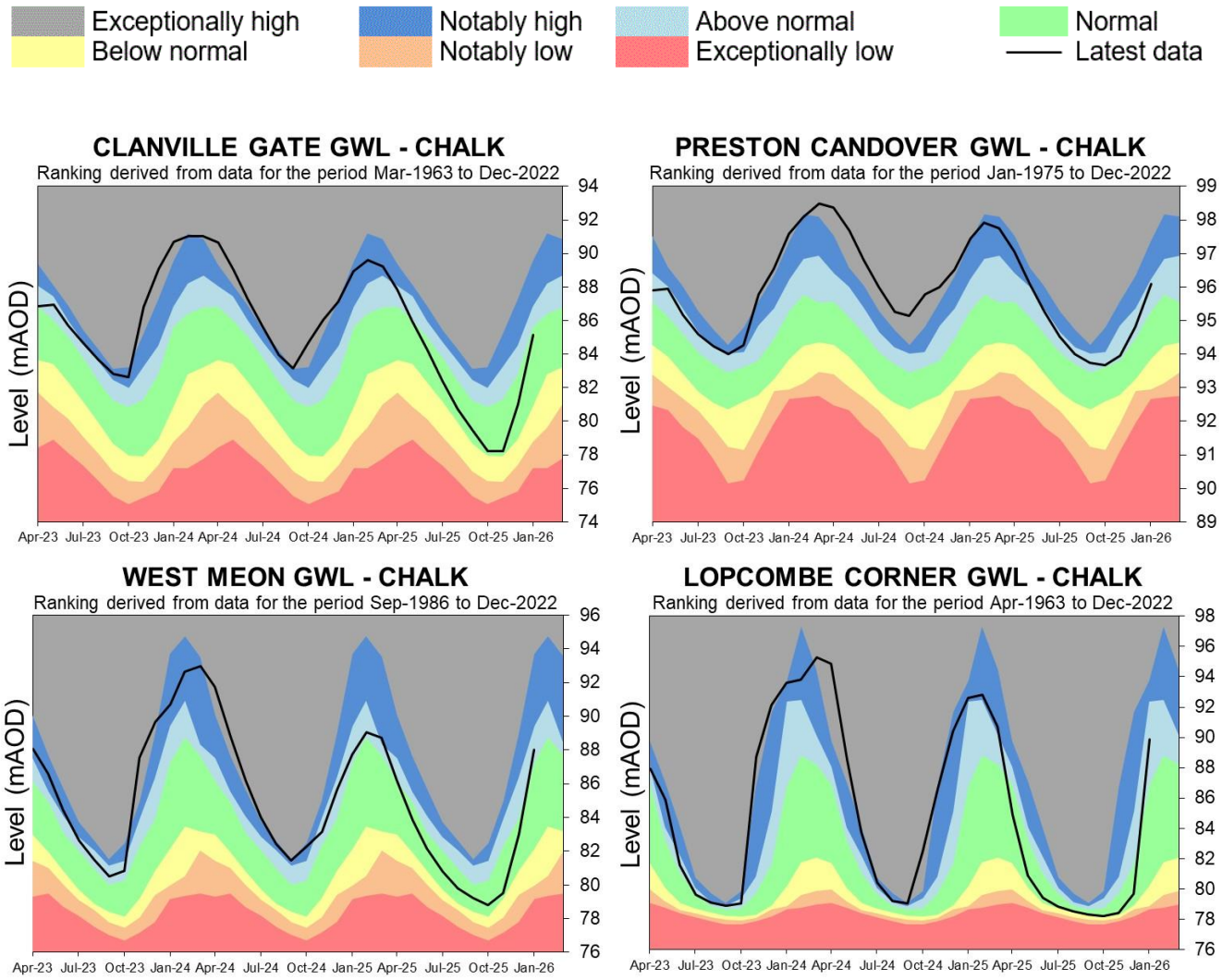
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



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.

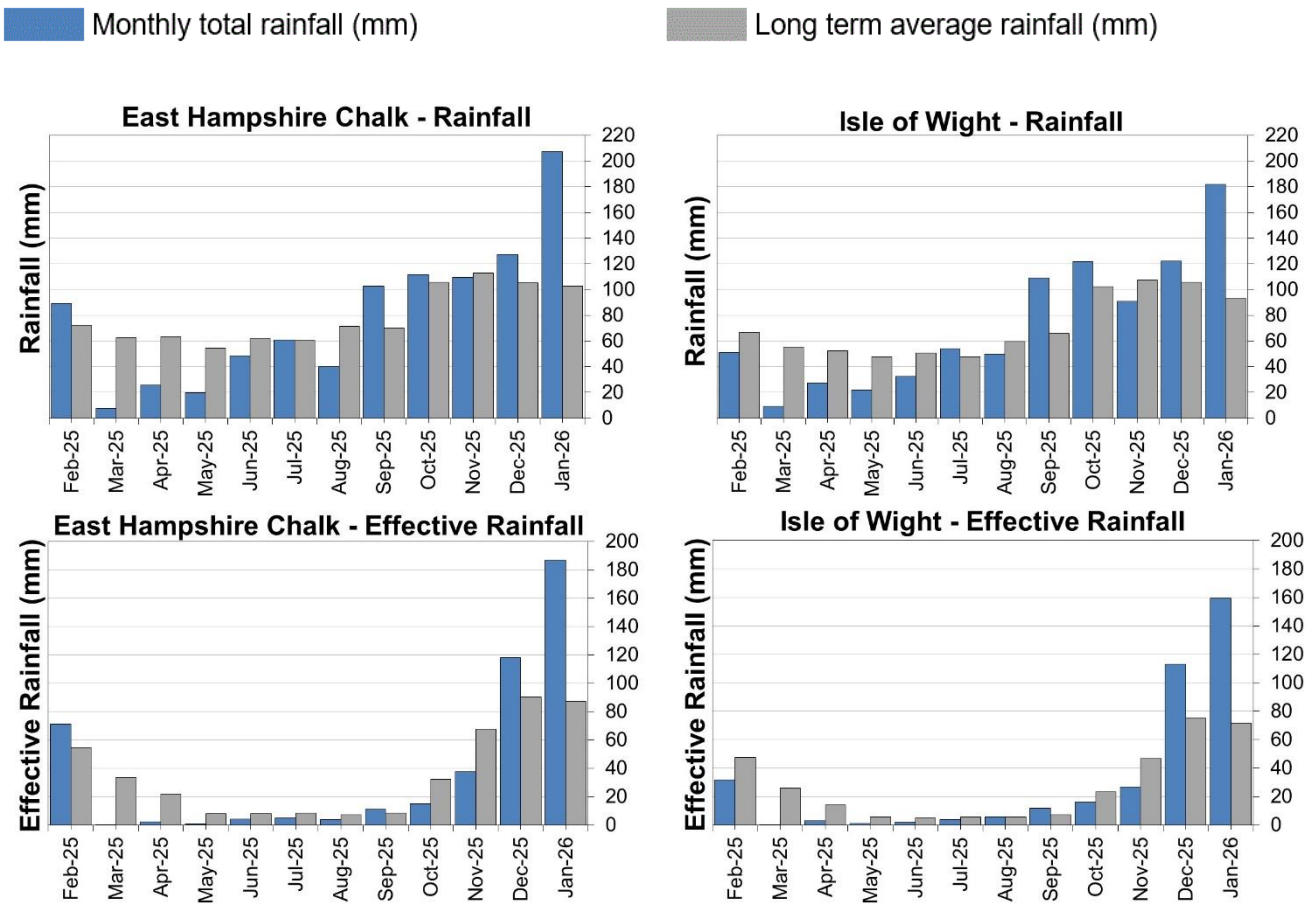


Source: Environment Agency, 2026.

5 East Hampshire and Isle of Wight

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

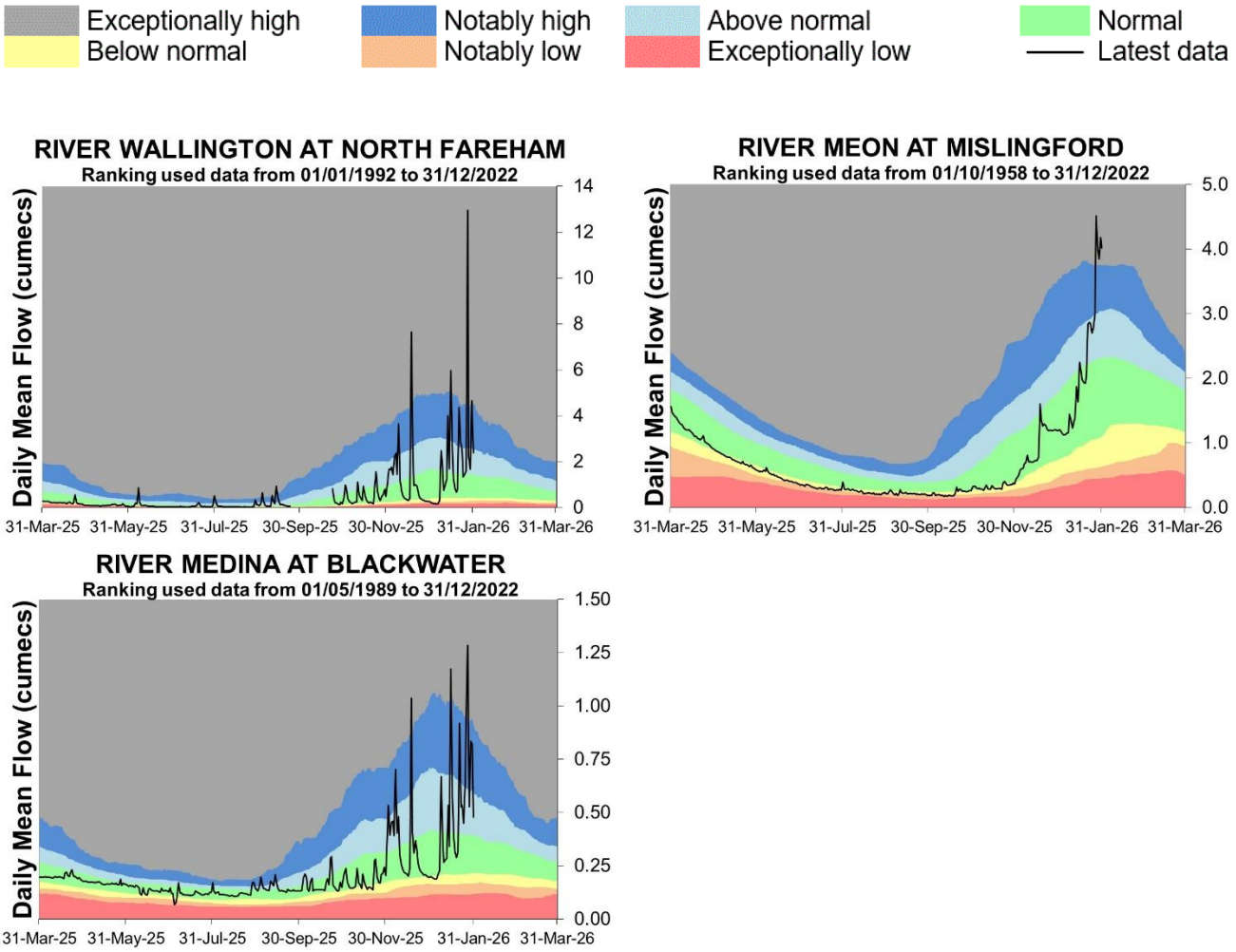
Figure 5.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

5.2 East Hampshire and Isle of Wight River flow charts

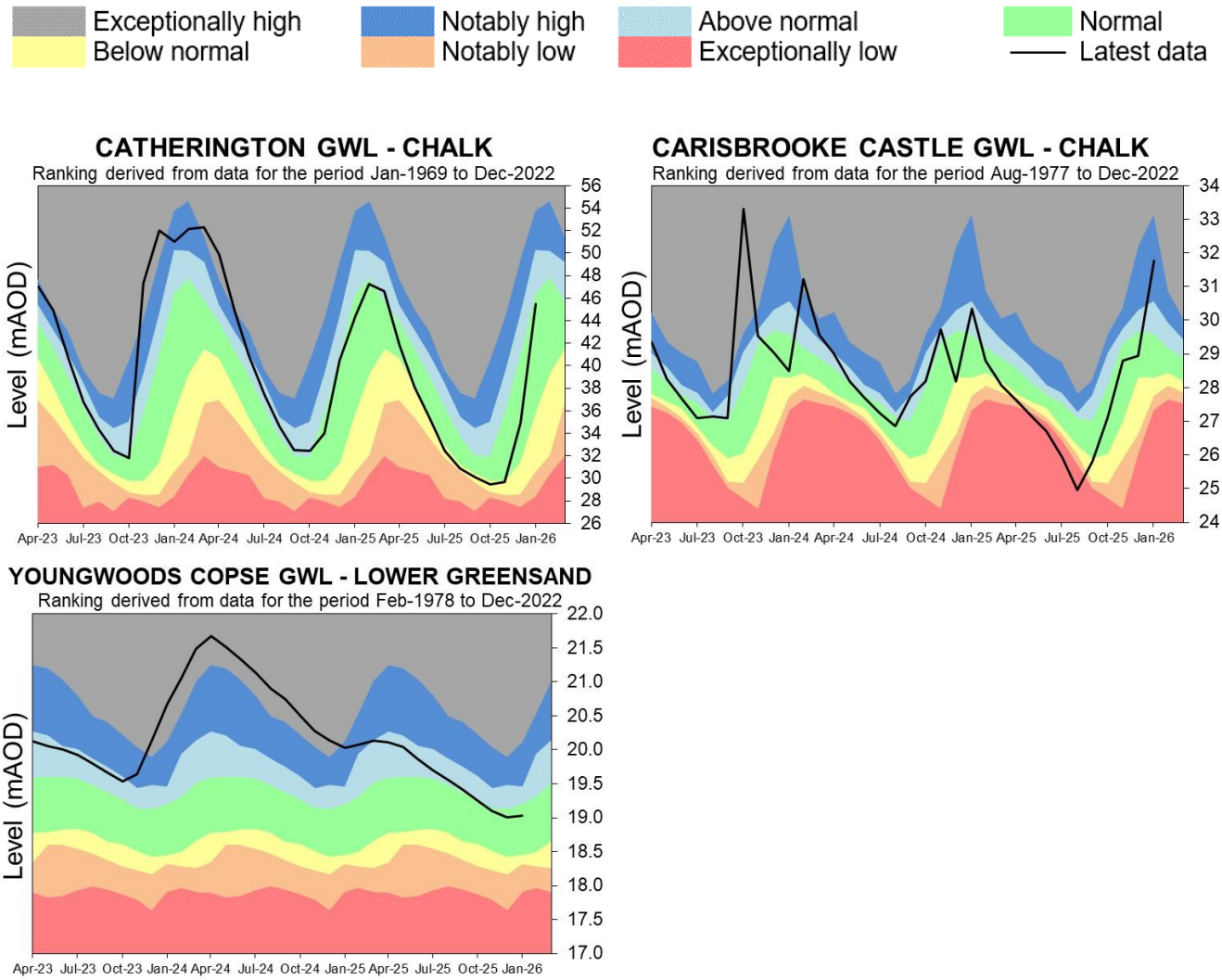
Figure 5.2 Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



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.

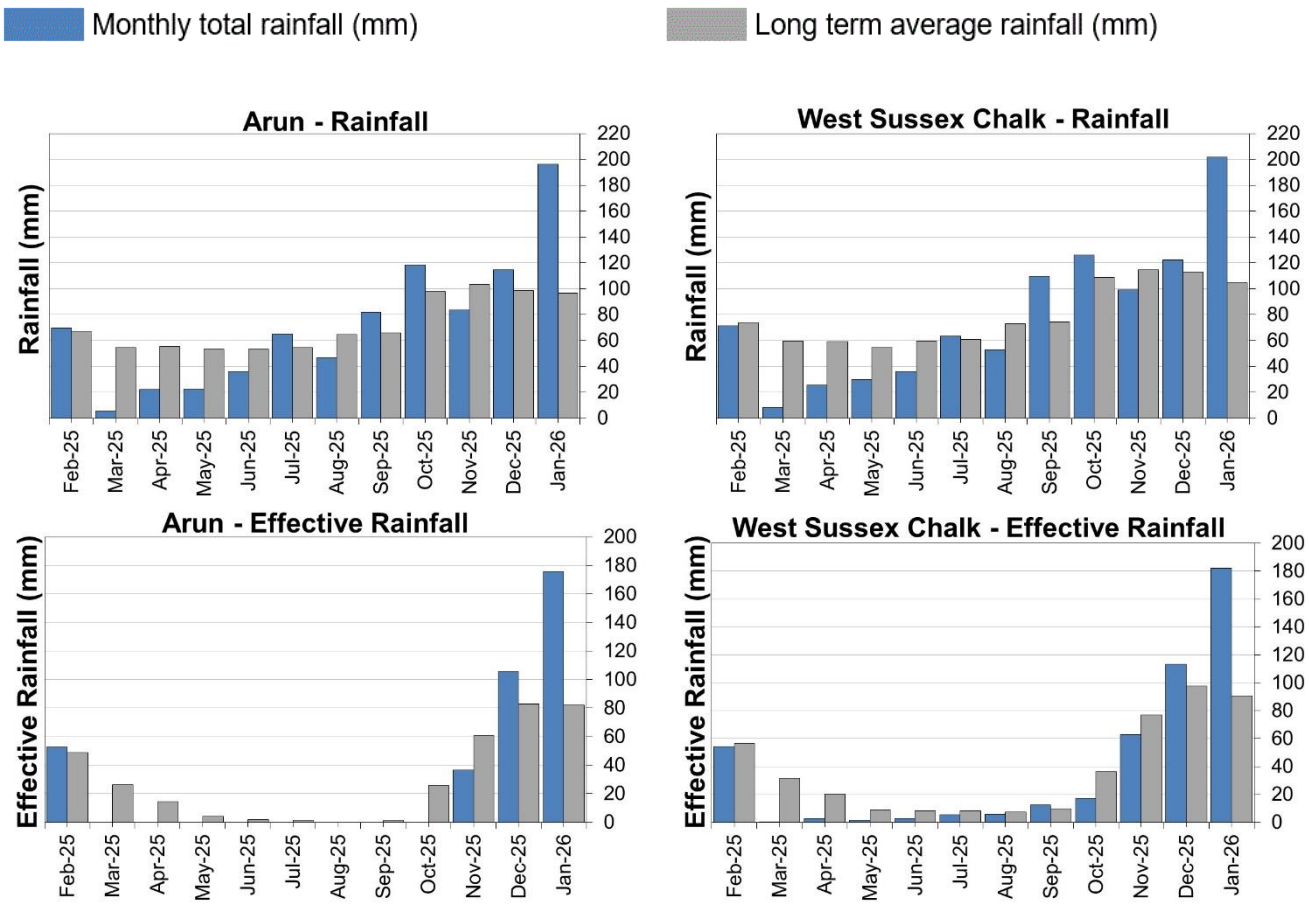


Source: Environment Agency, 2026.

6 West Sussex

6.1 West Sussex Rainfall and Effective Rainfall charts

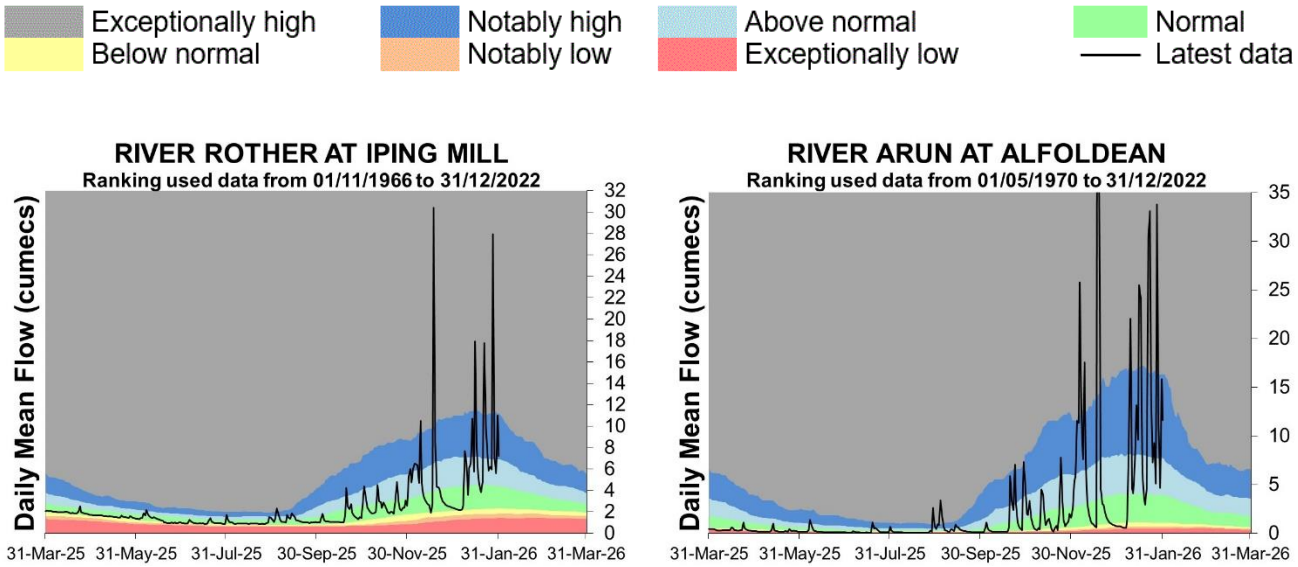
Figure 6.1: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average.



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

6.2 West Sussex River flow charts

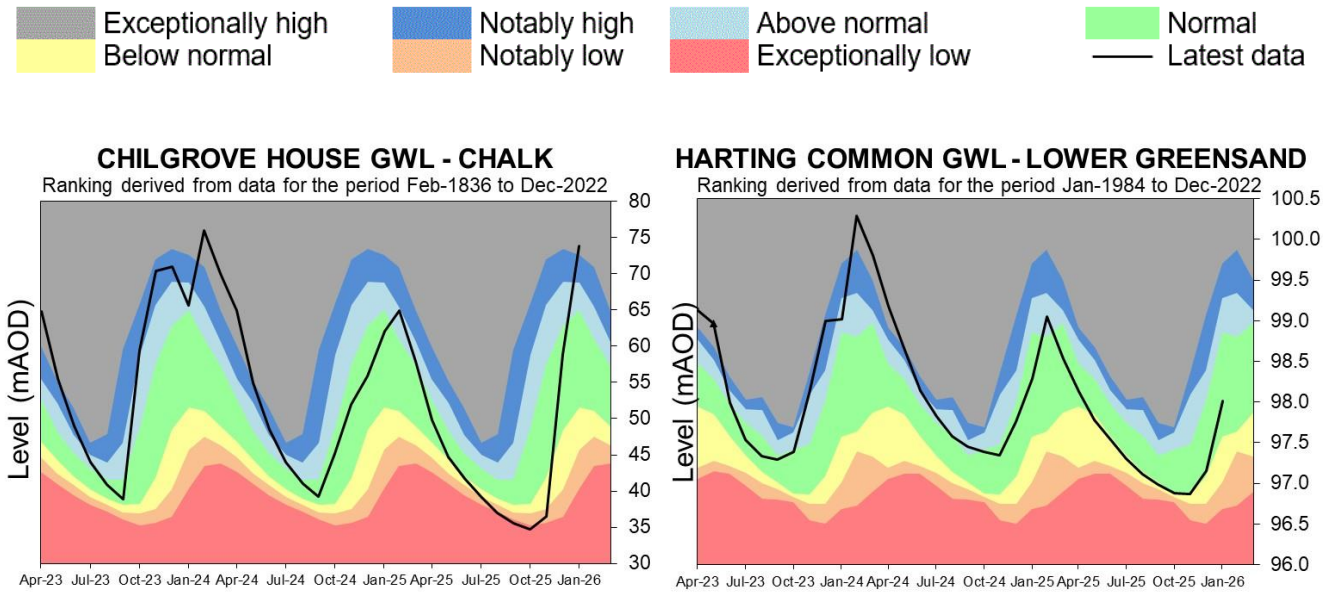
Figure 6.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



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.

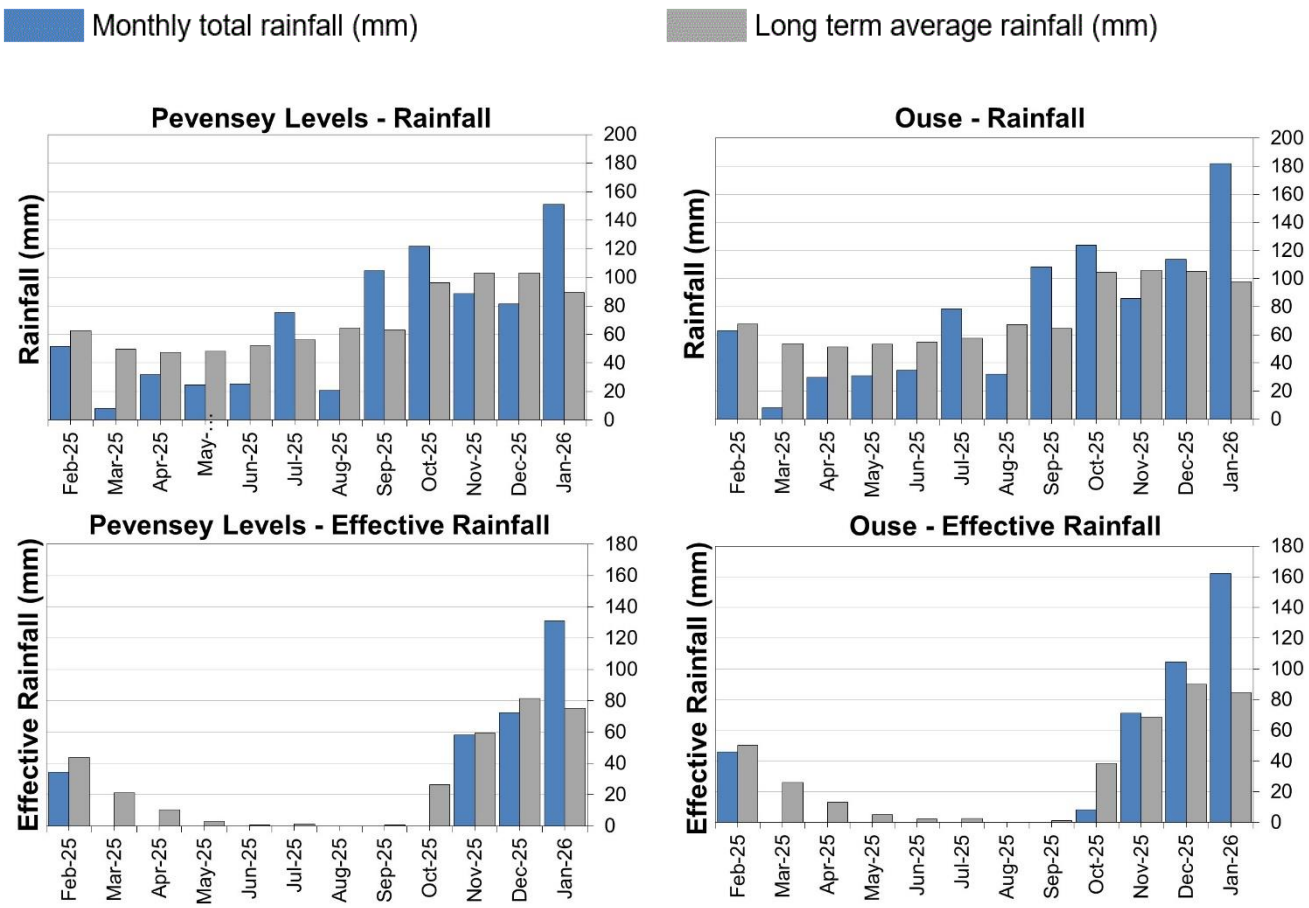


Source: Environment Agency, 2026.

7 East Sussex

7.1 East Sussex Rainfall and Effective Rainfall charts

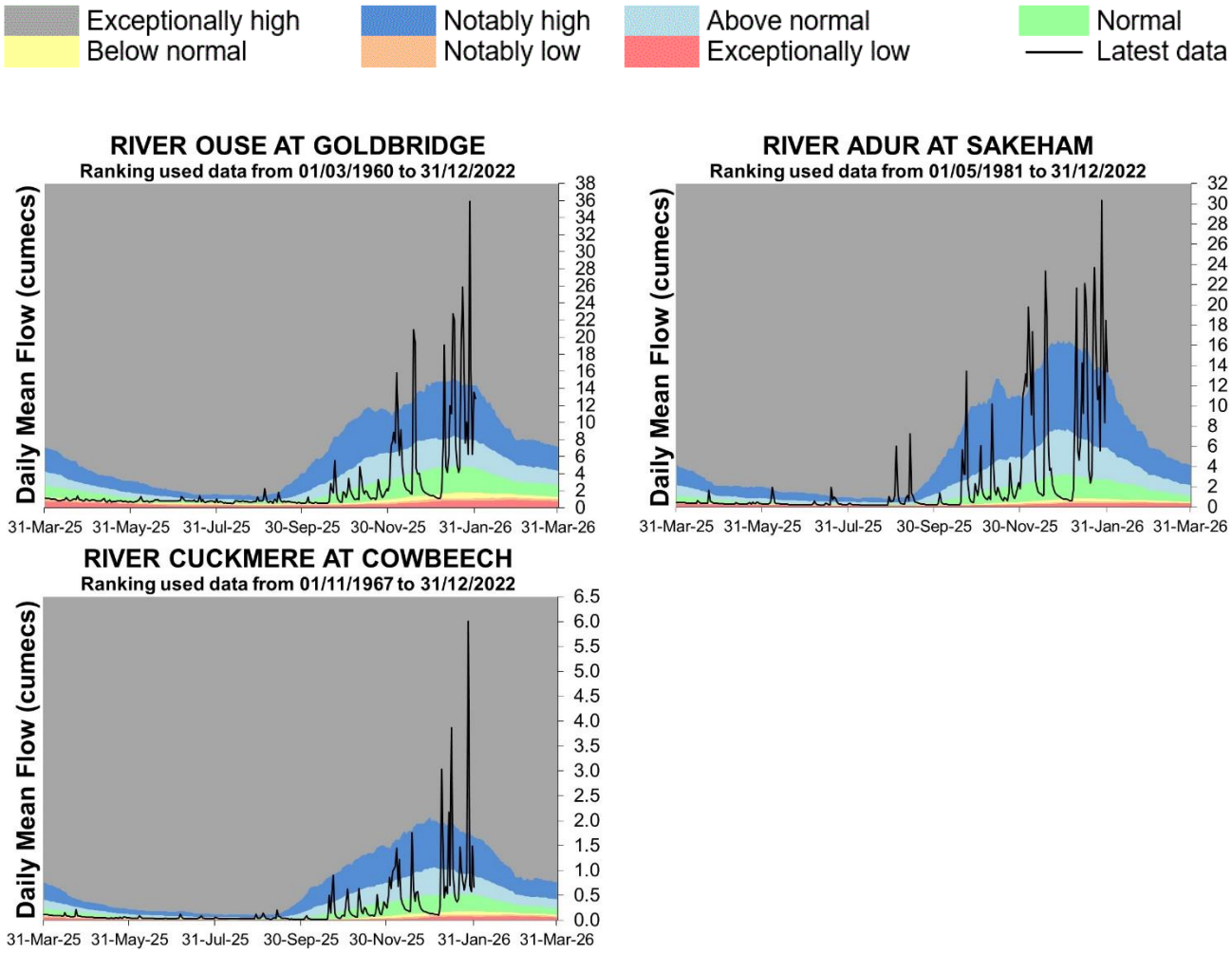
Figure 7.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average.



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

7.2 East Sussex River flow charts

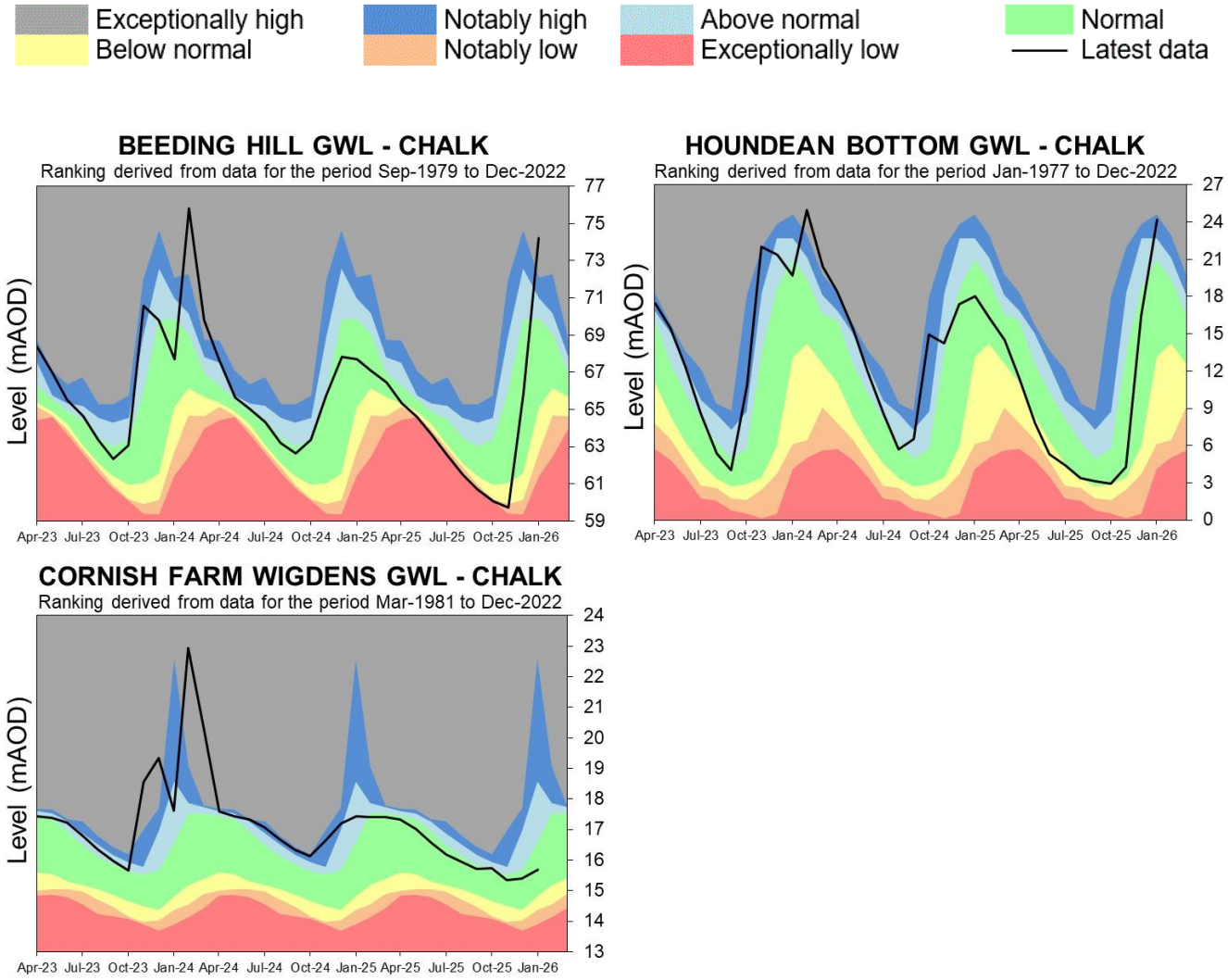
Figure 7.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



Source: Environment Agency, 2026.

7.3 East Sussex Groundwater level charts

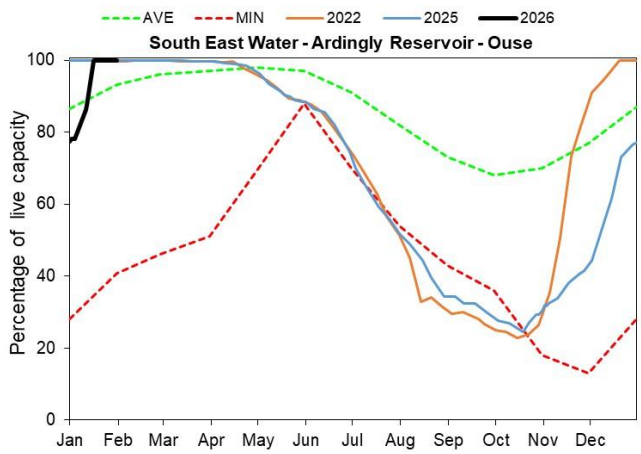
Figure 7.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.

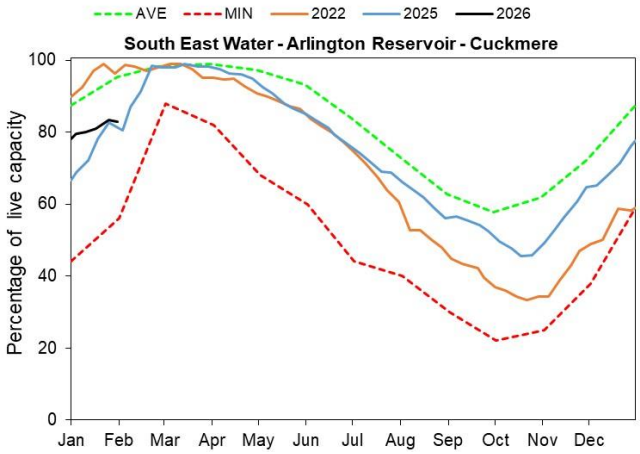


Source: Environment Agency, 2026.

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

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 January as %LTA	Effective Rainfall (mm) 31 day Total	Effective Rainfall January as %LTA	Soil Moisture Deficit (SMD) Day 31	SMD End of January LTA
Test Chalk	188	203%	168	224%	0	2
East Hampshire Chalk	207	202%	187	214%	0	1
West Sussex Chalk	202	192%	182	201%	0	1
East Sussex Chalk	177	185%	157	197%	0	2
Isle of Wight	182	194%	159	223%	0	4
Western Rother Greensand	217	196%	197	206%	0	1
Hampshire Tertiaries	197	206%	175	224%	0	2
Lymington	194	200%	173	214%	0	2
Sussex Coast	153	177%	131	195%	0	2
Arun	196	204%	176	214%	0	1
Adur	204	215%	185	227%	0	1
Ouse	182	185%	162	192%	0	1
Cuckmere	159	168%	140	171%	0	1
Pevensey Levels	151	169%	131	174%	0	1
SSD Average	186	193%	166	205%	0	2

10.2 Seasonal summary table of rainfall and effective rainfall

Winter season October to March. Current data 01/10/2025 to 31/01/2026

Hydrological Area	Seasonal Rainfall (mm) Total	Seasonal Rainfall as % LTA	Seasonal Effective Rainfall (mm) Total	Seasonal Effective Rainfall as % LTA
Test Chalk	511	134%	291	133%
East Hampshire Chalk	556	130%	367	132%
West Sussex Chalk	550	124%	385	127%
East Sussex Chalk	505	122%	323	127%
Isle of Wight	517	126%	315	145%
Western Rother Greensand	583	128%	403	129%
Hampshire Tertiaries	525	132%	329	140%
Lymington	556	135%	371	146%
Sussex Coast	419	115%	217	118%
Arun	511	129%	325	129%
Adur	524	131%	363	140%
Ouse	505	122%	354	125%
Cuckmere	459	112%	309	110%
Pevensey Levels	442	113%	265	109%
SSD Average	512	125%	330	129%

10.3 Rainfall banding table

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

10.4 River flows table

Site name	River	Catchment	January 2026 band	December 2025 band
Alfoldean Gs	Arun	Arun	Exceptionally high	Notably High
Allbrook Gs+ Highbridge	Itchen (so)	Itchen	Above normal	Normal
Blackwater	Medina	Isle of Wight	Above normal	Normal
Broadlands	Test	Test Lower	Above normal	Normal
Brockenhurst GS	Lymington	New Forest	Exceptionally high	Notably High
Chilbolton GS	Test	Test Upper	Normal	Normal
Cowbeech Gs	Cuckmere	Cuckmere	Notably high	Normal
Goldbridge Gs	Ouse [so]	Ouse Sussex	Exceptionally high	Above Normal
Iping Mill Gs	Rother	West Rother	Exceptionally high	Above Normal
Mislingford GS	Meon	Meon	Above normal	Normal
North Fareham GS	Wallington	Wallington	Above normal	Normal
Sakeham GS	Adur	Adur	Exceptionally high	Notably High

10.5 Groundwater table

Site name	Aquifer	End of January 2026 band	End of December 2025 band
Carisbrooke Castle	Isle Of Wight Central Downs Chalk	Notably high	Normal
Youngwoods Copse	Isle of Wight Lower Greensand	Normal	Normal
Clanville Gate Gwl	River Test Chalk	Normal	Normal
Lopcombe Corner Gwl	River Test Chalk	Above normal	Normal
Preston Candover	River Itchen Chalk	Above normal	Above normal
West Meon Hut Gwl	River Itchen Chalk	Above normal	Normal
Catherington	River Meon Chalk	Normal	Normal
Chilgrove House Gwl	Chichester-Worthing-Portsdown Chalk	Exceptionally high	Normal
Beeding Hill Gwl	Brighton Chalk Block	Exceptionally high	Normal
Houndean Bottom Gwl	Brighton Chalk Block	Notably high	Normal
Harting Common Down	Western Rother Lower Greensand	Normal	Normal
Cornish Wigdens Gwtr	Eastbourne Chalk Block	Normal	Normal

10.6 Abstraction licence flow constraints

Number of flow constraints in force between 1 to 5 January 2026	Number of flow constraints in force between 6 to 12 January 2026	Number of flow constraints in force between 13 to 19 January 2026	Number of flow constraints in force between 20 to 30 January 2026
6	7	3	0

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