Monthly water situation report: Wessex Area

1 Summary - March 2025

In March there was very little rainfall across Wessex, resulting in the driest March since 1961 and the driest overall month since May 2020. An average of 8mm, 11% of the long term average (LTA) fell across Wessex. Despite this, over the past 6 months all hydrological areas have received normal rainfall and over the past 12 months most hydrological areas in Wessex have received either above normal or notably high rainfall. Soil moisture deficit (SMD) increased throughout March with all hydrological areas reporting between 11mm and 40mm at the end of the month. The majority of monthly mean flows across the north and west of Wessex were below normal. The majority of sites to the south of Wessex reported either normal or above normal monthly mean flows. Most groundwater sites monitoring the Chalk reported normal levels at the end of March while Didmarton in the north of Wessex monitoring the inferior Oolite recorded notably high levels. Reservoirs ended March at approximately 96% capacity on average for both Wessex Water and Bristol Water.

1.1 Rainfall

An average of 8mm of rain fell across Wessex in March (11% of the LTA). The lowest relative rainfall was recorded in the Wylye and Nadder (7% of the LTA) while the highest was recorded in the Axe and the Yeo and Kenn (19% of the LTA). Only three days during March recorded an average of over 1mm of rain across Wessex. The wettest day of the month was 21 March when an average of 4mm fell (43% of rain during March). All hydrological areas across Wessex received exceptionally low rainfall during March. Overall, this has been the fourth driest March since records began in 1871 and the driest March since 1961. It has also been the driest month since May 2020.

Over the past 3 months, the West Somerset Streams was the only hydrological area to receive below normal rainfall, with all other areas receiving normal rainfall. Over the past 6 months, all areas received normal rainfall. Over the past 12 months, most hydrological areas received either above normal or notably high rainfall due to high rainfall over the last year. The West Somerset Streams and the Tone in the west of Wessex were the only areas which received normal rainfall over the past 12 months.

1.2 Soil moisture

SMD in Wessex increased throughout March. At the end of the month, all hydrological areas in Wessex recorded a SMD in the range of 11mm to 40mm. The majority of Wessex recorded a SMD between 26mm to 50mm greater than the LTA at the end of March. In the few remaining hydrological areas mainly to the south east of Wessex, SMD at the end of March was between

6mm and 25mm greater than the LTA. At the end of March, SMD in Wessex was the highest on record for this time of year.

1.3 River flows

In March, the majority of flow sites to the north and west of Wessex reported below normal monthly mean flows. The two exceptions were Frenchay (monitoring the Bristol Frome) which recorded notably low flows and Fenny Castle (monitoring the Sheppey) which recorded normal mean monthly flows. All sites monitoring flows on and downstream of the Chalk aquifer recorded either normal or above normal monthly mean flows in March as the flows are supported by strong baseflow from the Chalk aquifer. Across all flow sites in Wessex, daily mean flows fell throughout most of March except for a small peak in flows following the rain on 21 March. All flow sites ended March with lower flows than they had at the start of the month.

1.4 Groundwater levels

The majority of groundwater monitoring sites across the south of Wessex, including sites monitoring the Chalk aquifer ended March reporting normal levels. The only exception was Tilshead (monitoring the Chalk) which recorded above normal levels. In the north of Wessex, Didmarton (monitoring the inferior Oolite) recorded notably high levels at the end of March. For most of the month, groundwater levels across all sites were decreasing in response to the very limited rainfall.

1.5 Reservoir stocks

Reservoir levels began to decrease during March for both Wessex Water and Bristol Water. The current combined levels for both Wessex Water and Bristol Water are approximately 96% capacity. This is lower than Wessex Water reservoir levels recorded this time last year but slightly higher than those recorded by Bristol Water in March 2024. For both Wessex Water and Bristol Water, reservoir levels recorded at the end of the month are slightly lower than the end of March 1995.

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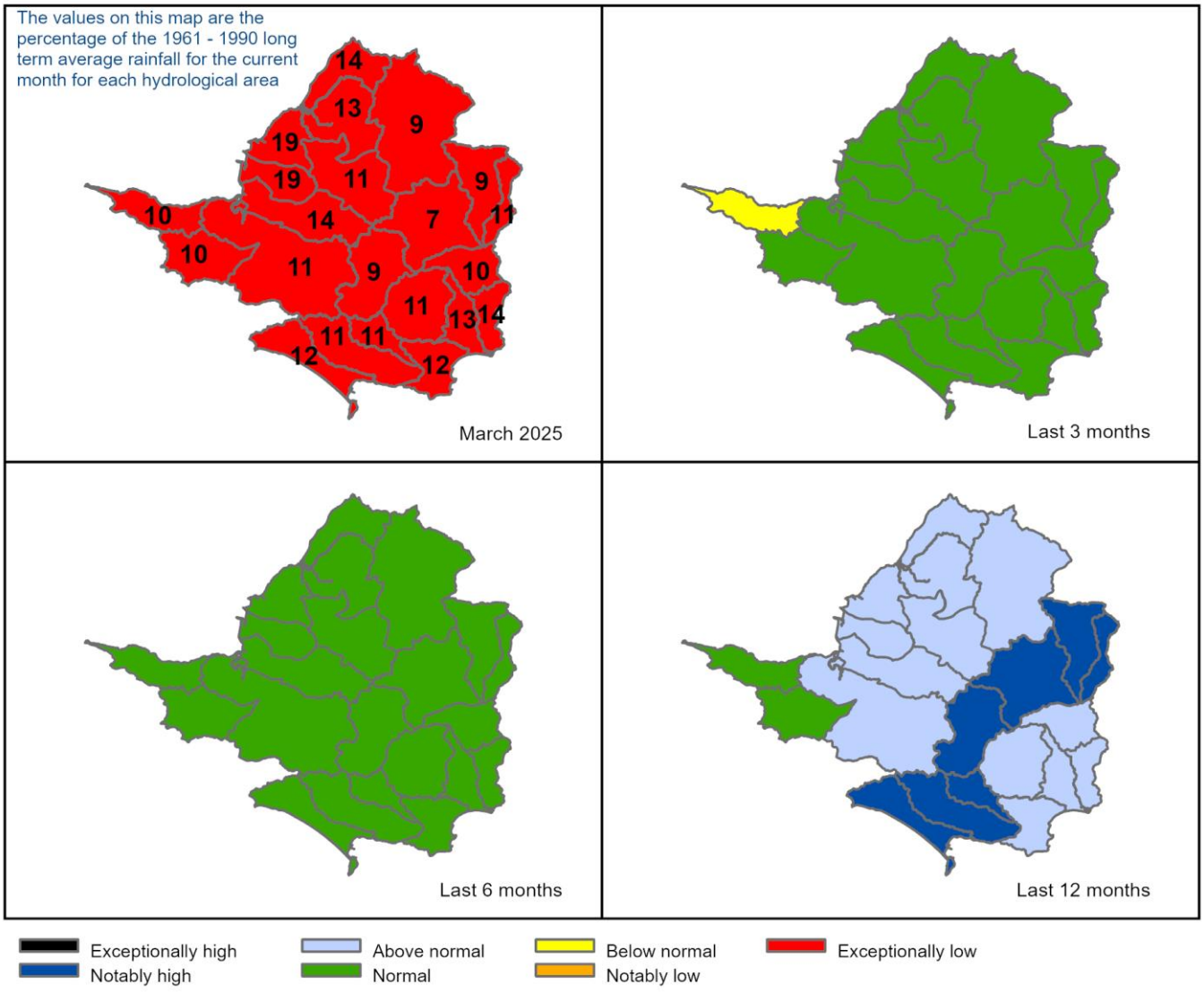
2 Rainfall

2.1 Rainfall map

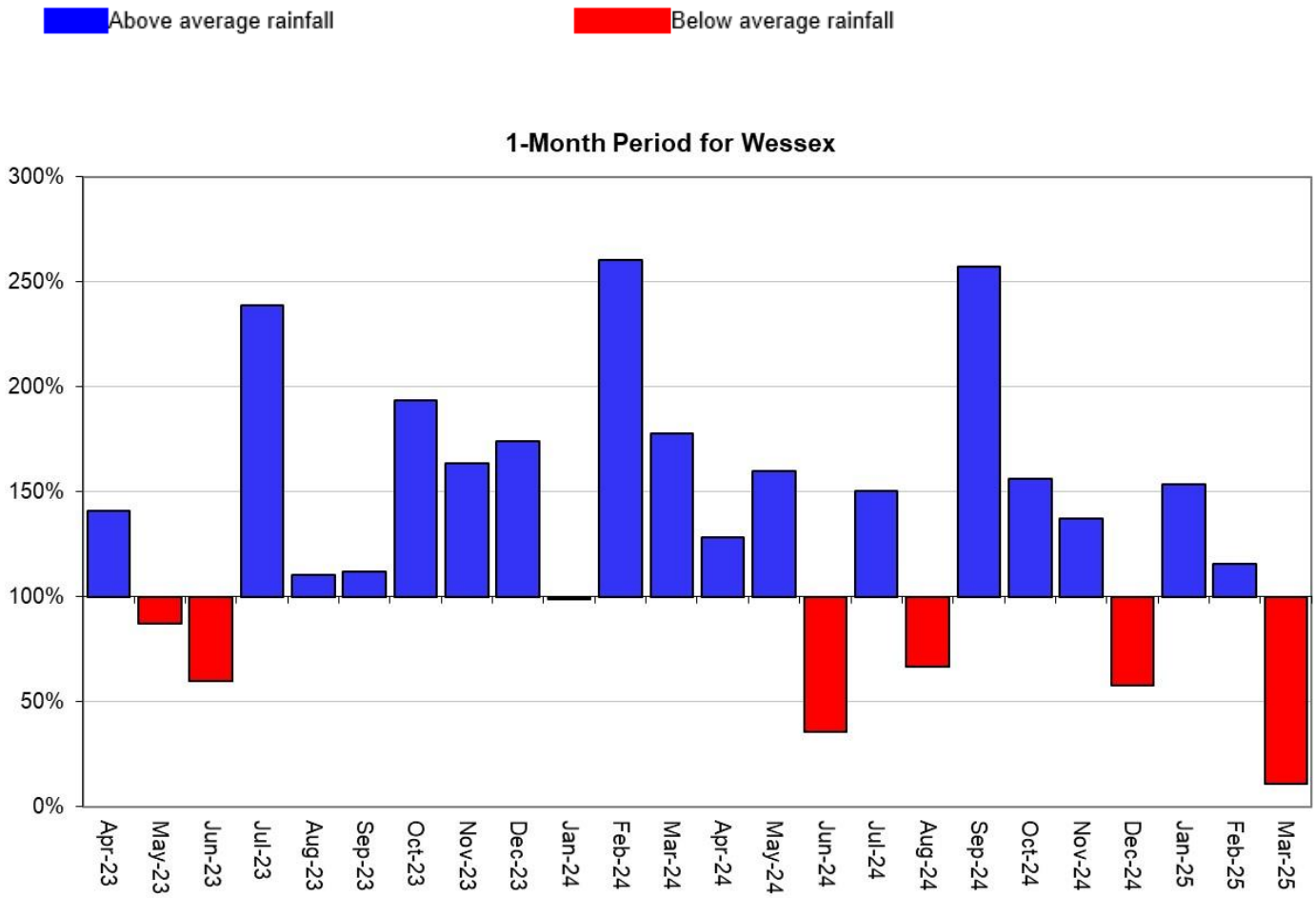
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 March 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



Rainfall data from October 2023, 2024 and 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2025). Rainfall data prior to October 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

2.2 Rainfall charts

Figure 2.2: Monthly rainfall totals for the past 24 months as a percentage of the 1961 to 1990 long term average for each region and for England.

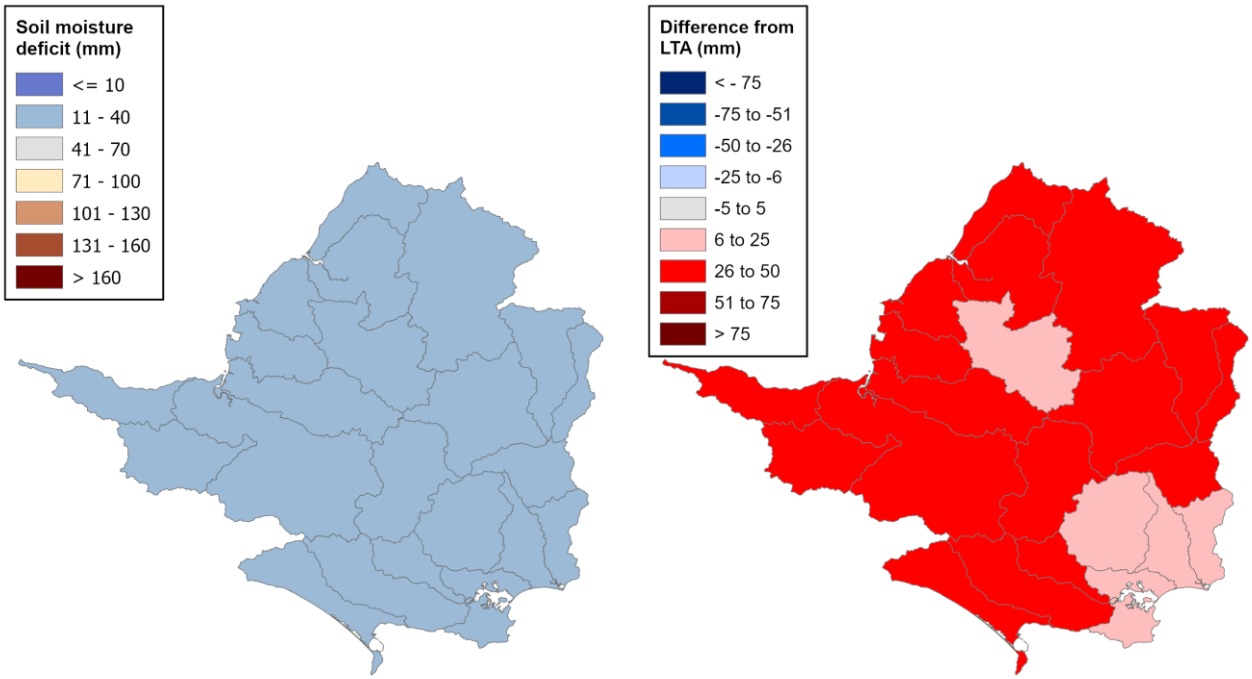


Rainfall data from October 2023, 2024 and 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2025). Rainfall data prior to October 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

3 Soil moisture deficit

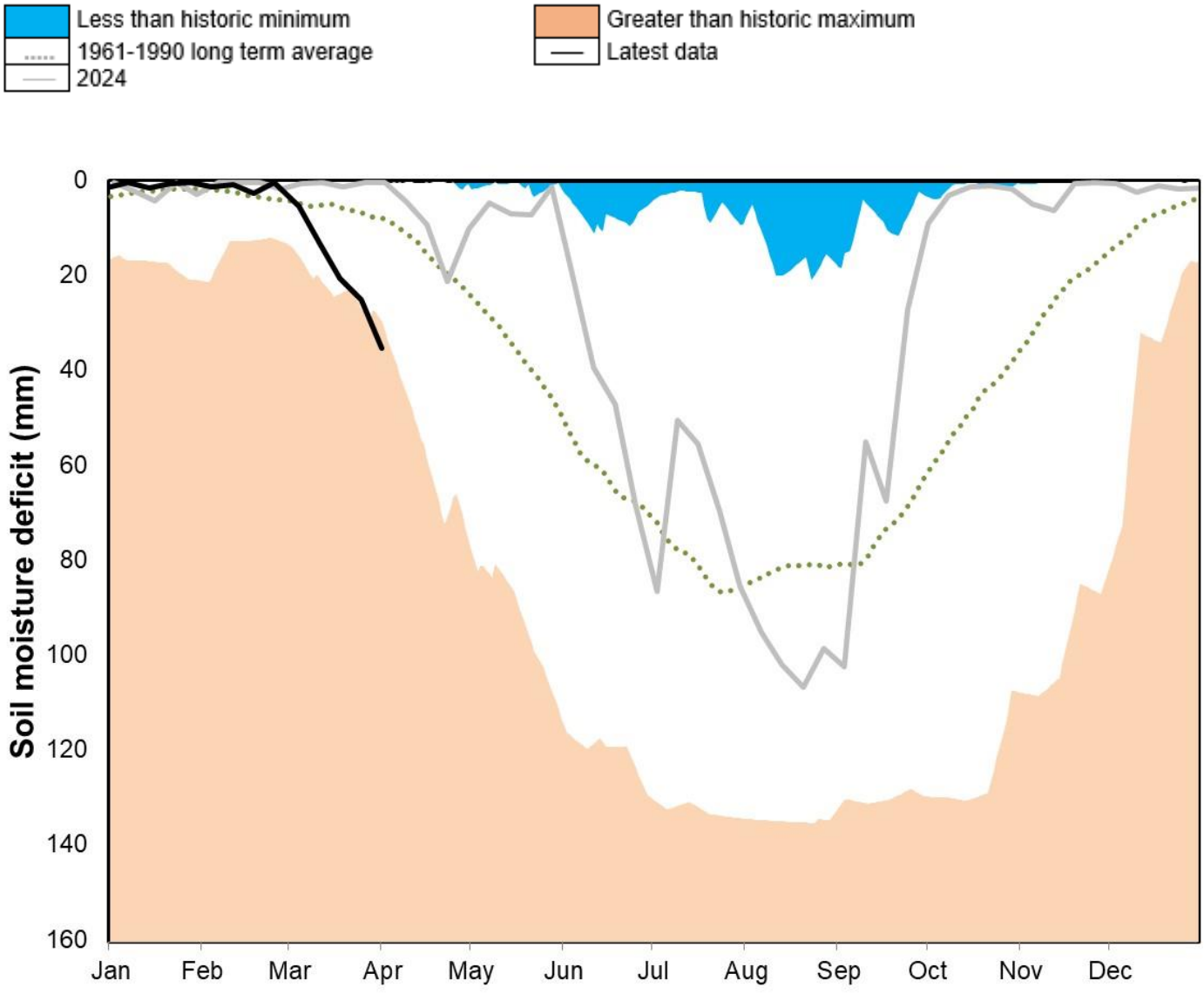
3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending 31 March 2025. Shows the difference (mm) of the actual soil moisture deficit from the 1961 to 1990 long term average soil moisture deficits. MORECS data for real land use.



3.2 Soil moisture deficit charts

Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1961 to 1990 long term average. Weekly MORECS data for real land use.



4 River flows

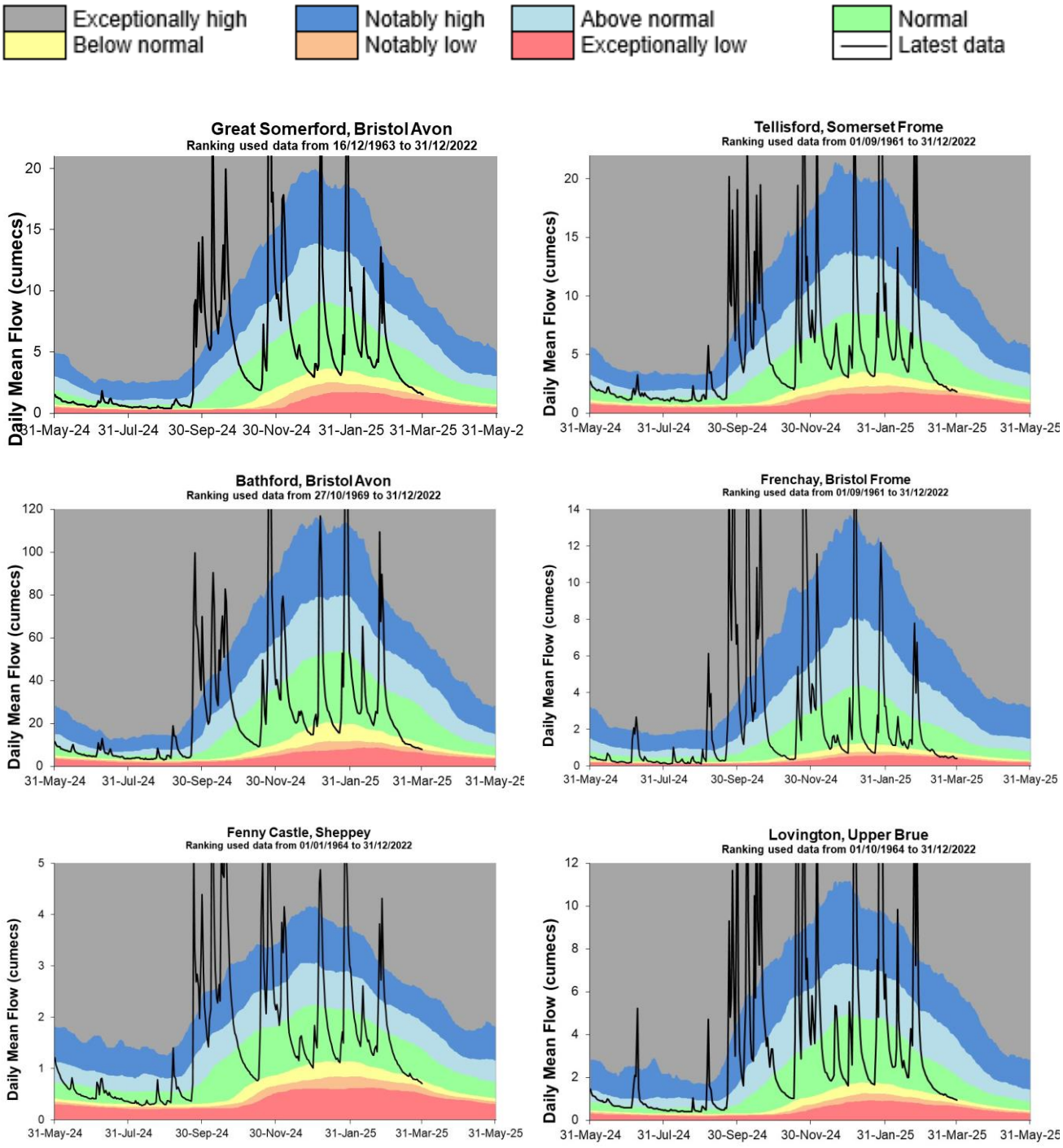
4.1 River flows map

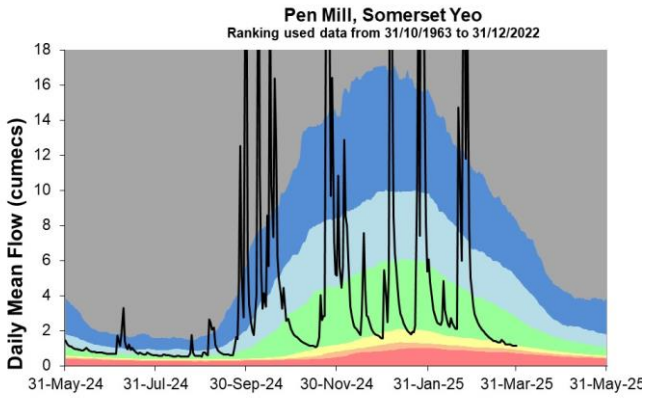
Figure 4.1: Monthly mean river flow for indicator sites for March 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic March monthly means Table available in the appendices with detailed information.

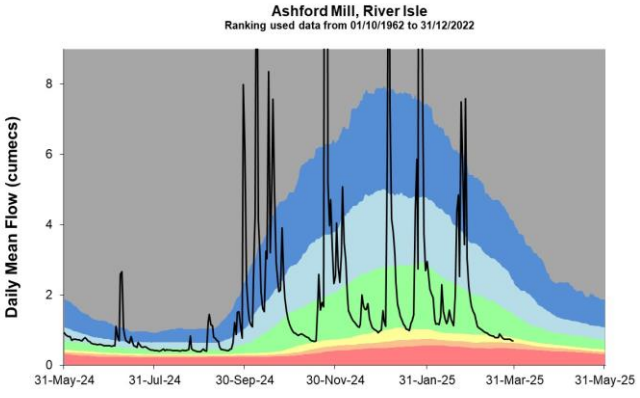
 The Dorset Stour at Throop and Dorset Frome at East Stoke Combined should be treated with caution due to data issues.

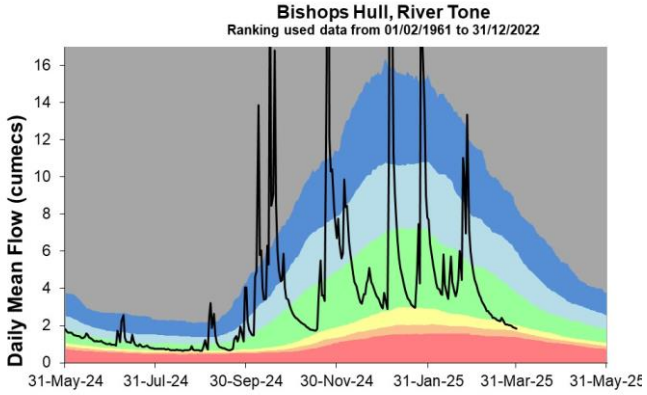
4.2 River flow charts

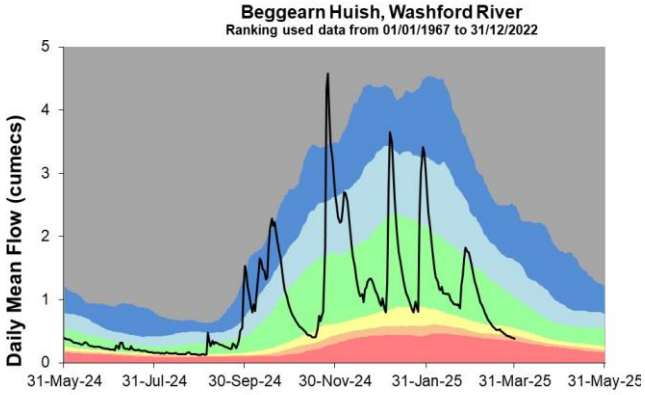
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows.

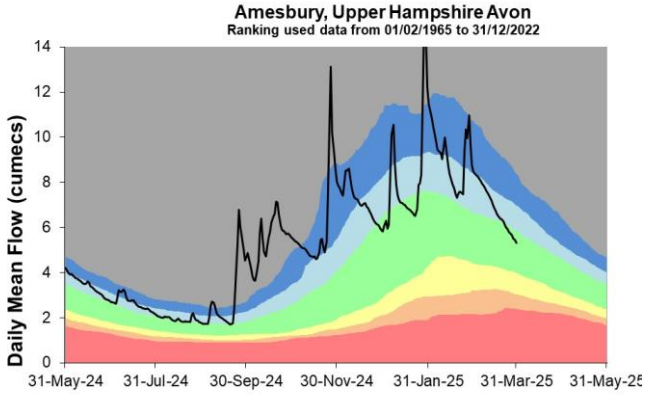


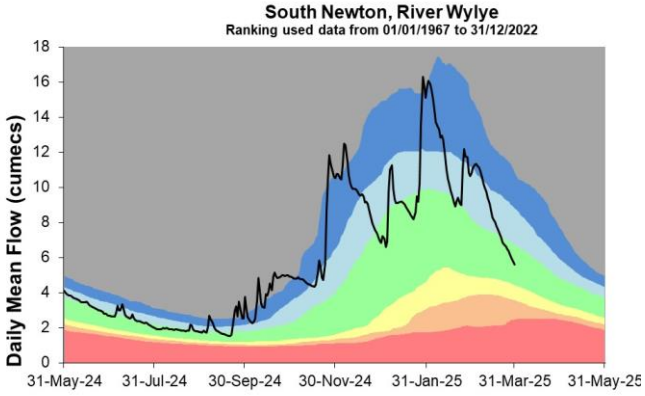

Pen Mill, Somerset Yeo
Ranking used data from 31/10/1963 to 31/12/2022
Daily Mean Flow (cumecs)
0
2
4
6
8
10
12
14
16
18
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

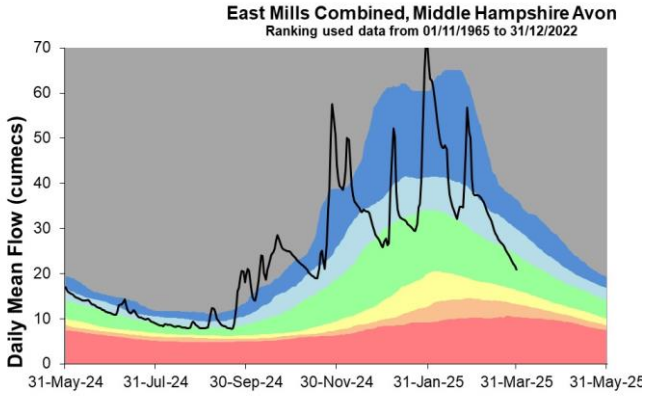

Ashford Mill, River Isle
Ranking used data from 01/10/1962 to 31/12/2022
Daily Mean Flow (cumecs)
0
2
4
6
8
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

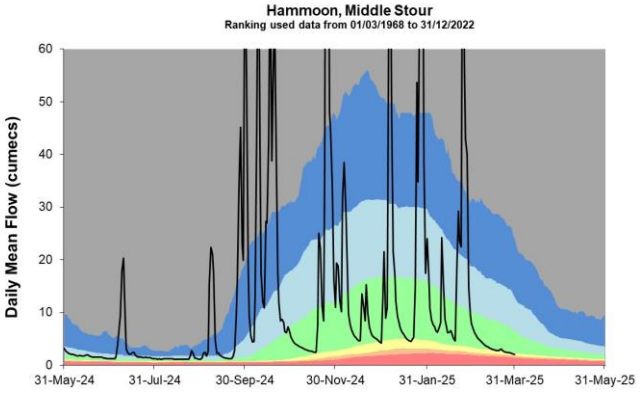

Bishops Hull, River Tone
Ranking used data from 01/02/1961 to 31/12/2022
Daily Mean Flow (cumecs)
0
2
4
6
8
10
12
14
16
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

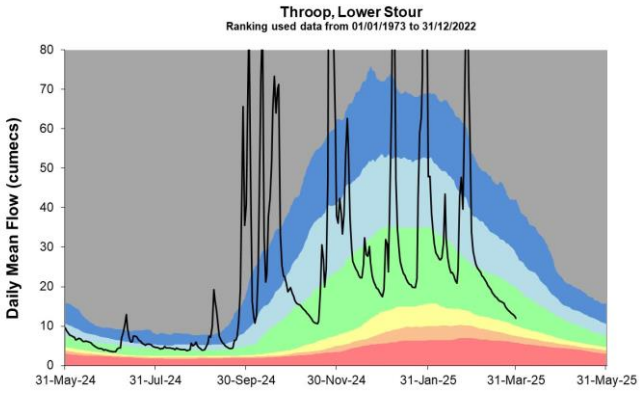

Beggearn Huish, Washford River
Ranking used data from 01/01/1967 to 31/12/2022
Daily Mean Flow (cumecs)
0
1
2
3
4
5
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

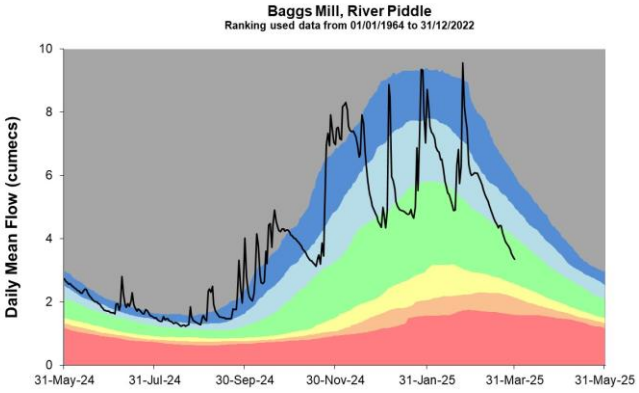

Amesbury, Upper Hampshire Avon
Ranking used data from 01/02/1965 to 31/12/2022
Daily Mean Flow (cumecs)
0
2
4
6
8
10
12
14
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

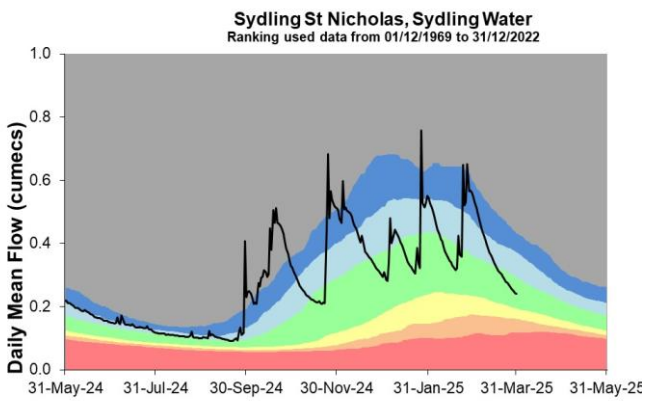

South Newton, River Wylye
Ranking used data from 01/01/1967 to 31/12/2022
Daily Mean Flow (cumecs)
0
2
4
6
8
10
12
14
16
18
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

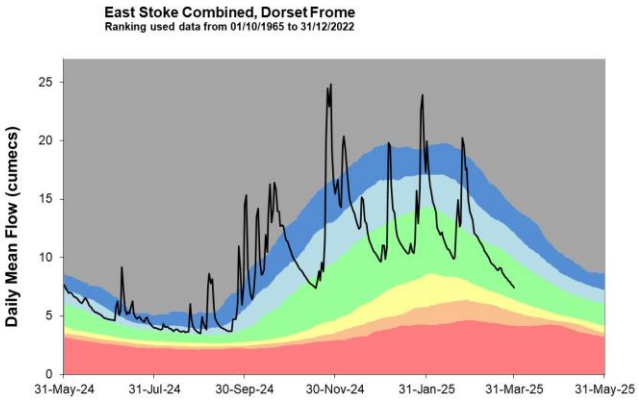

East Mills Combined, Middle Hampshire Avon
Ranking used data from 01/11/1965 to 31/12/2022
Daily Mean Flow (cumecs)
0
10
20
30
40
50
60
70
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25

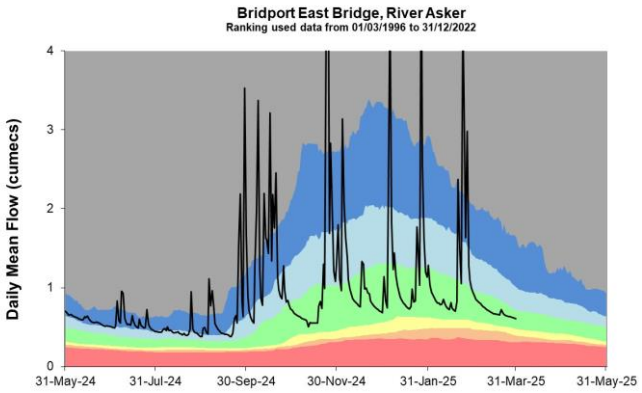

Hammoon, Middle Stour
Ranking used data from 01/03/1968 to 31/12/2022
Daily Mean Flow (cumecs)
0
10
20
30
40
50
60
31-May-24
31-Jul-24
30-Sep-24
30-Nov-24
31-Jan-25
31-Mar-25
31-May-25









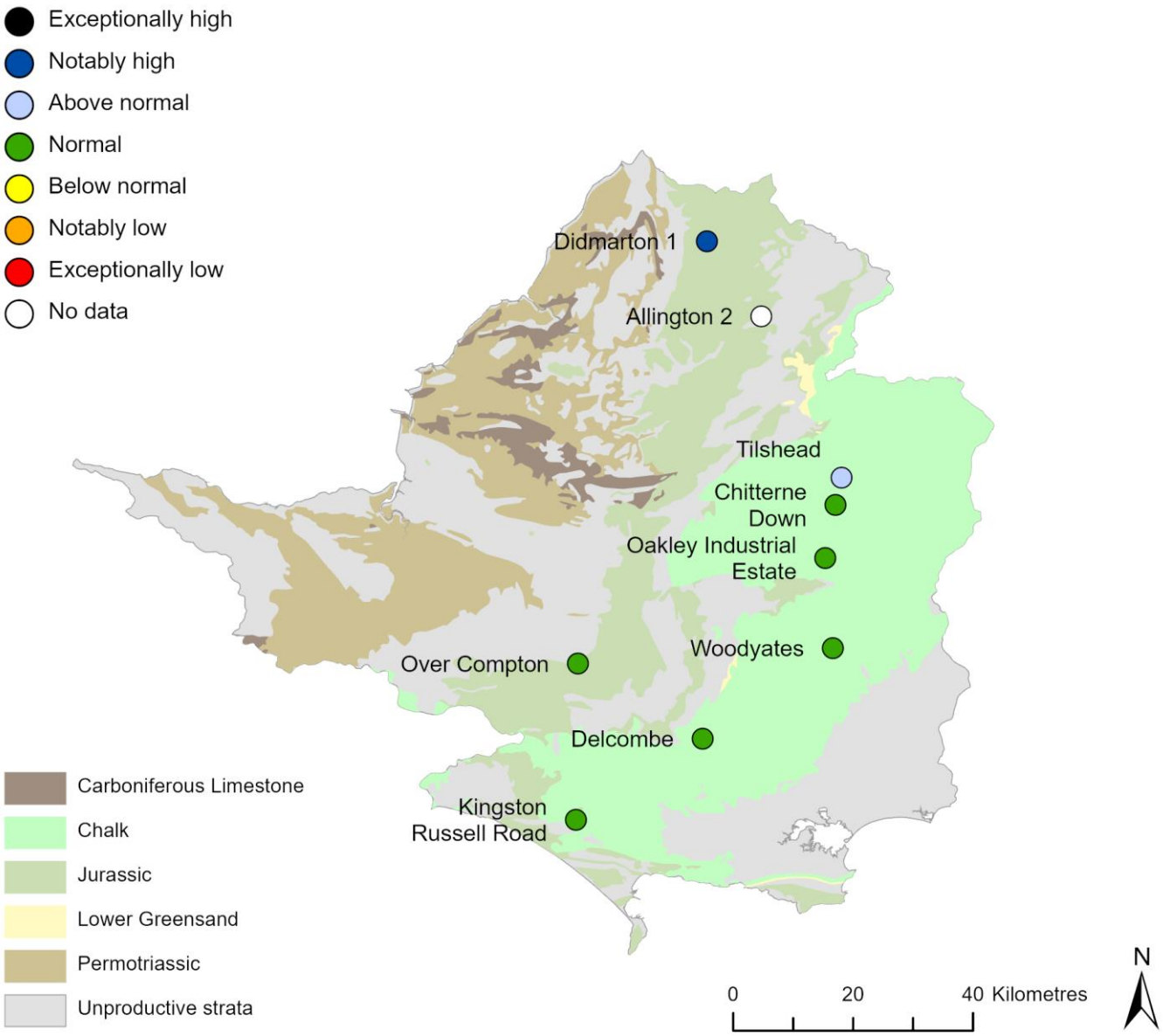


Source: Environment Agency, 2025. The Dorset Stour at Throop and Dorset Frome at East Stoke Combined should be treated with caution due to data issues.

5 Groundwater levels

5.1 Groundwater levels map

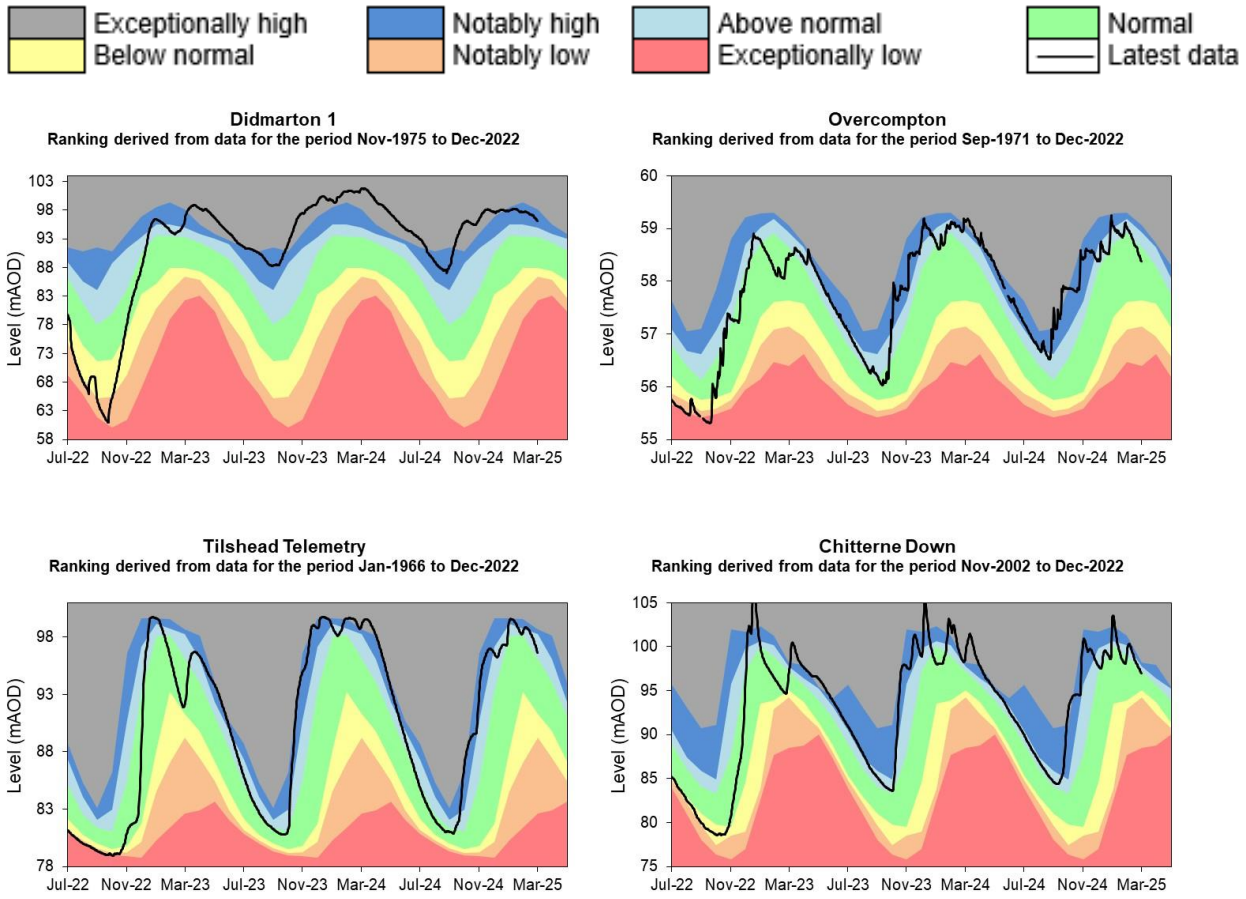
Figure 5.1: Groundwater levels for indicator sites at the end of March 2025, classed relative to an analysis of respective historic March levels. Table available in the appendices with detailed information.

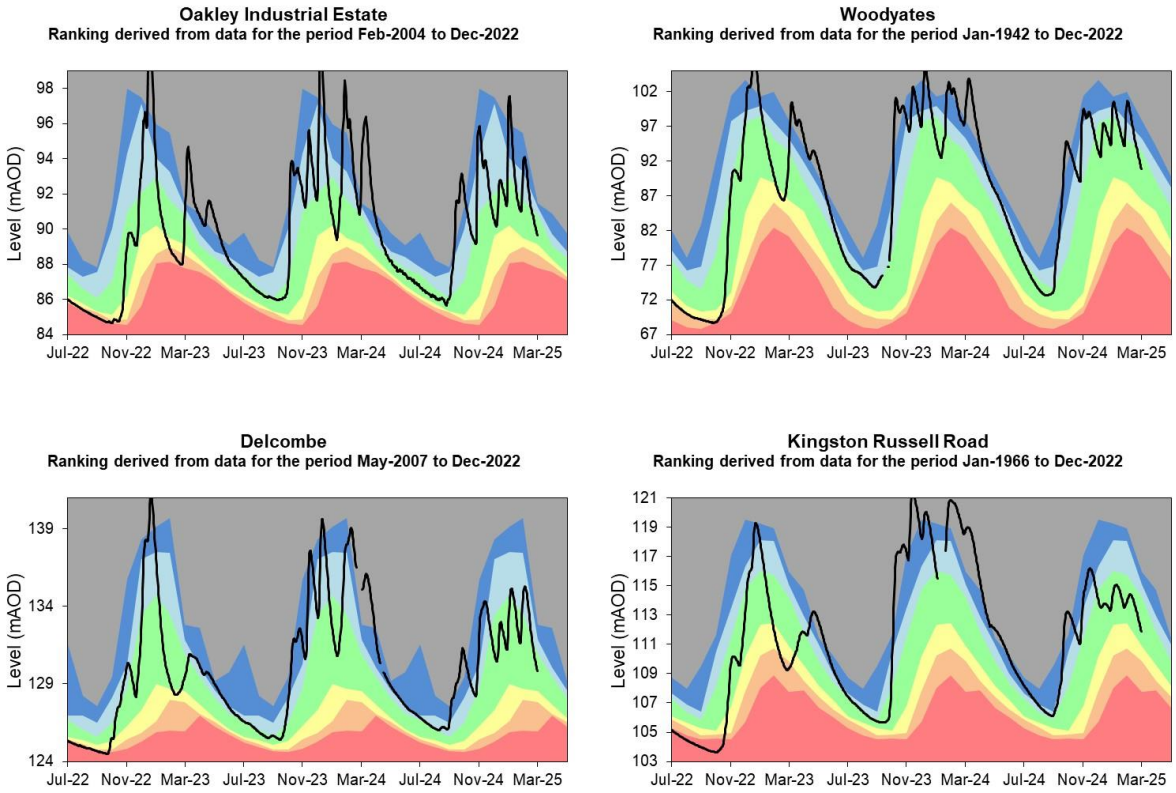


(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.

5.2 Groundwater level charts

Figure 5.2: 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.

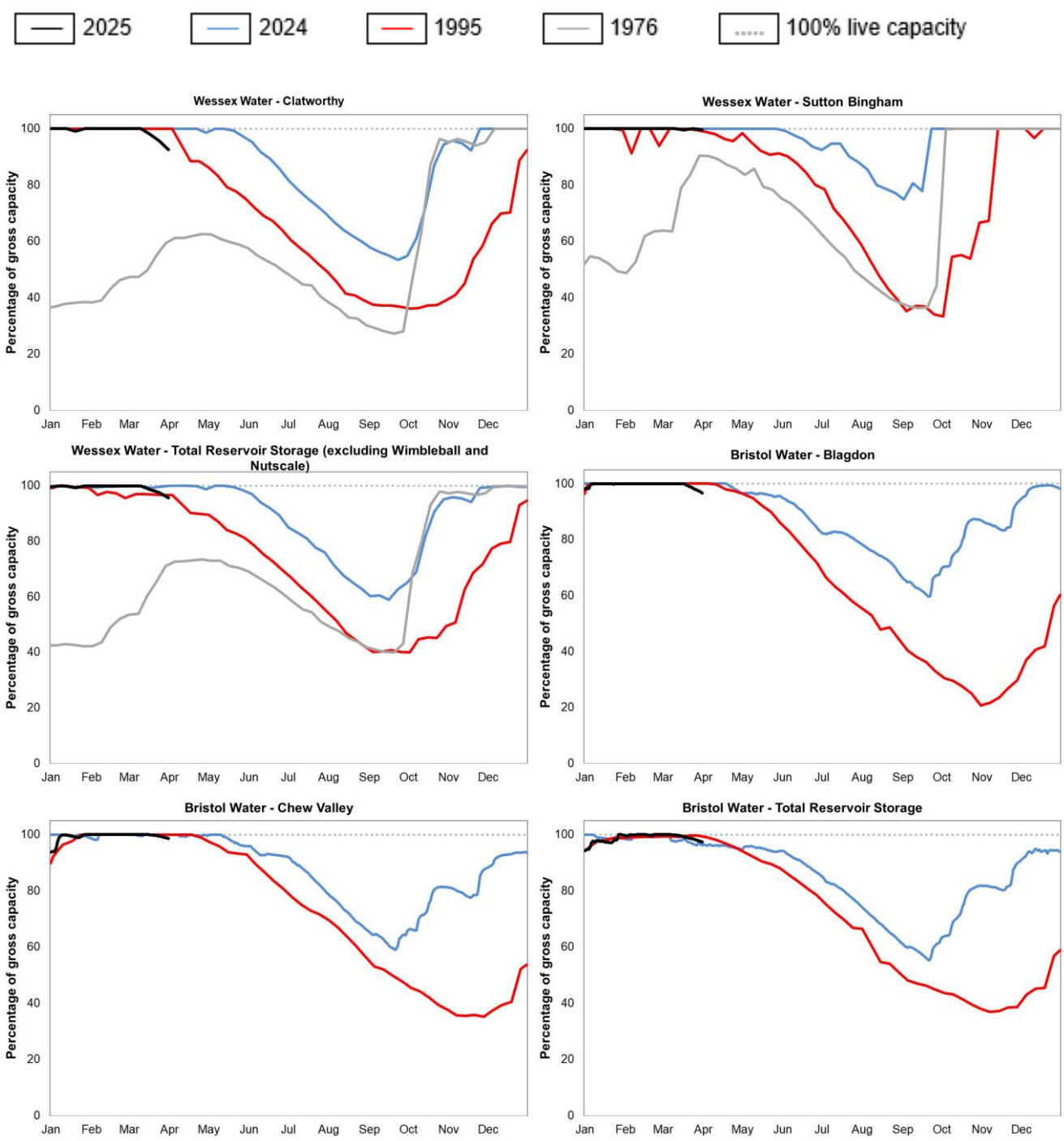




Source: Environment Agency, 2025.

6 Reservoir stocks

Figure 6.1: End of month regional reservoir stocks compared to the previous year, and if available, also a comparison to reservoir stocks in 1995 and 1976.



(Source: Wessex Water and Bristol Water).

7 Flood alerts and warnings

7.1 Flood alerts

Table 1: Fluvial, coastal and groundwater flood alerts issued during March

Area	Number of fluvial flood alerts in March	Number of coastal flood alerts in March	Number of groundwater flood alerts in March
North Wessex	0	6	0
South Wessex	0	0	1

7.2 Flood warnings

Table 2: Fluvial, coastal and groundwater flood warnings issued during March

Area	Number of fluvial flood warnings in March	Number of coastal flood warnings in March	Number of groundwater flood warnings in March
North Wessex	0	0	0
South Wessex	0	0	0

7.3 Severe flood warnings

Table 3: Fluvial, coastal and groundwater severe flood warnings issued during March

Area	Number of fluvial severe flood warnings in March	Number of coastal severe flood warnings in March	Number of groundwater severe flood warnings in March
North Wessex	0	0	0
South Wessex	0	0	0

8 Stream support

8.1 Sites providing stream support

Table 4: End of March status for stream support sites.

Catchment	River	Stream support site	Gauging station	End of March status
Bristol Avon	Chalfield Brook	South Wraxall	Great Chalfield (Wessex Water)	Off
Bristol Avon	Chalfield Brook	Little Chalfield	Great Chalfield (Wessex Water)	Off
Bristol Avon	Charlton Stream	Charlton	Crabb Mill	Off
Bristol Avon	Gauze Brooke	Hullavington	Rodbourne	Off
Bristol Avon	Horscombe Stream	Tucking Mill	No Gauge	Off
Bristol Avon	Luckington Brook	Luckington	Fossway	Off
Bristol Avon	Rodbourne Brook	Lower Stanton St. Quinton	Startley	On
Bristol Avon	Semington Brook	Easterton	No Gauge	Off
Bristol Avon	Sherston Avon	Stanbridge	Fossway	Off
Bristol Avon	Tetbury Avon	Tetbury	Brokenborough	Off
Dorset Frome	South Winterbourne	Winterbourne Abbas	Winterbourne Steepleton	Off

Dorset Frome	Watergates Stream	Watergates	No Gauge	On
Piddle	Devil's Brook	Dewlish	Dewlish Woodsdown Cross	Off
Piddle	Piddle	Alton Mill	South House & Little Puddle	Off
Piddle	Piddle	Morningwell	South House & Little Puddle	Off
Piddle	Piddle	Briantspuddle	Briantspuddle	Off
Dorset Stour	Crichel Stream	Long Crichel	No Gauge	Off
Dorset Stour	Gussage Stream	Gussage All Saints	Bowerswain	Off
Dorset Stour	Allen	Wyke Down	All Hallows	Off
Dorset Stour	Pimperne Stream	Pimperne	No Gauge	Off
Hampshire Avon	Bourne	Porton	Salisbury Bourne	Off
Hampshire Avon	Chitterne Brook	Codford Road	Codford	Off
Hampshire Avon	Wylye	Brixton Deverill	Brixton Deverill & Heytesbury	Off
Hampshire Avon	Wylye	Kingston Deverill	Brixton Deverill & Heytesbury	Off

9 Abstraction licences subject to restrict or cease

9.1 Abstraction licences subject to restrict or cease

Table 5: Number of licences at restrict or cease at the end of March.

Catchment	Number of licences at restrict at the end of March	Number of licences at cease at the end of March
Bristol Avon	0	0
Dorset	0	2
Hampshire Avon	0	3
Somerset	0	1

10 Glossary

10.1 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 1961 to 1990. 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).

10.2 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.

10.3 Rainfall Areas Map

Figure 6.2 Rainfall catchments in Wessex.

11 Appendices

11.1 Rainfall table

Hydrological area	Mar 2025 rainfall % of long term average 1961 to 1990	Mar 2025 band	Jan 2025 to March cumulative band	Oct 2024 to March cumulative band	Apr 2024 to March cumulative band
Axe	19	Exceptionally Low	Normal	Normal	Above normal
Brue	14	Exceptionally Low	Normal	Normal	Above normal
Little Avon	14	Exceptionally Low	Normal	Normal	Above normal
Lower Bristol Avon And Bristol Frome	13	Exceptionally Low	Normal	Normal	Above normal
Lower Dorset Stour And River Crane	13	Exceptionally Low	Normal	Normal	Above normal
Lower Hampshire Avon	14	Exceptionally Low	Normal	Normal	Above normal
Mendips And River Chew	11	Exceptionally Low	Normal	Normal	Above normal
Middle And Upper Bristol Avon	9	Exceptionally Low	Normal	Normal	Above normal

Middle Dorset Stour	11	Exceptionally Low	Normal	Normal	Above normal
Middle Hampshire Avon	10	Exceptionally Low	Normal	Normal	Above normal
Parrett	11	Exceptionally Low	Normal	Normal	Above normal
Poole Harbour And Purbeck	12	Exceptionally Low	Normal	Normal	Above normal
River Bourne	11	Exceptionally Low	Normal	Normal	Notably high
River Frome	11	Exceptionally Low	Normal	Normal	Notably high
River Piddle	11	Exceptionally Low	Normal	Normal	Notably high
Tone	10	Exceptionally Low	Normal	Normal	Normal
Upper Dorset Stour	9	Exceptionally Low	Normal	Normal	Notably high
Upper Hampshire Avon	9	Exceptionally Low	Normal	Normal	Notably high
West Dorset Streams	12	Exceptionally Low	Normal	Normal	Notably high

West Somerset Streams	10	Exceptionally Low	Below normal	Normal	Normal
Wylye And Nadder	7	Exceptionally Low	Normal	Normal	Notably high
Yeo And Kenn	19	Exceptionally Low	Normal	Normal	Above normal

11.2 River flows table

Site name	River	Catchment	Mar 2025 band	Feb 2025 band
Amesbury	Upper Hampshire Avon	Hampshire Avon	Above normal	Notably high
Ashford Mill	Isle	Parrett	Below normal	Normal
Baggs Mill	Piddle	Piddle	Above normal	Above normal
Bathford	Bristol Avon	Bristol Avon	Below normal	Normal
Beggearn Huish	Washford	Washford River	Below normal	Normal
Bishops Hull	Tone	Tone	Below normal	Normal
Bridport East Bridge	Asker	Asker	Normal	Above normal
Fenny Castle	Sheppey	Brue	Normal	Above normal
East Mills Combined	Middle Hampshire Avon	Hampshire Avon	Above normal	Notably high
East Stoke Combined	Dorset Frome	Dorset Frome	Normal	Normal
Frenchay	Bristol Frome	Bristol Frome	Notably low	Normal
Great Somerford	Bristol Avon	Bristol Avon	Below normal	Normal

Hammoon	Middle Stour	Dorset Stour	Below normal	Above normal
Knapp Mill	Lower Hampshire Avon	Hampshire Avon	Data unavailable	Data unavailable
Lovington	Upper Brue	Brue	Below normal	Above normal
Pen Mill	Yeo	Parrett	Below normal	Above normal
South Newton	River Wylye	Hampshire Avon	Above normal	Above normal
Sydling St Nicholas	Sydling Water	Dorset Frome	Above normal	Above normal
Tellisford	Somerset Frome	Bristol Avon	Below normal	Normal
Throop	Lower Stour	Dorset Stour	Normal	Above normal

11.3 Groundwater table

Site name	Aquifer	End of Mar 2025 band	End of Feb 2025 band
Allington No2	Upper Bristol Avon Great Oolite	Data unavailable	Notably high
Chitterne Down	Upper Hampshire Avon Chalk	Normal	Normal
Delcombe	Dorset Frome And Piddle Chalk/upper Greensand	Normal	Above normal
Didmarton 1	Upper Bristol Avon Inferior Oolite	Notably high	Notably high
Kingston Russell Road	Dorset Frome Chalk	Normal	Normal
Overcompton	Somerset Yeo Bridport Sand	Normal	Above normal
Tilshead	Upper Hampshire Avon Chalk	Above normal	Above normal
Woodyates	Dorset Stour Chalk	Normal	Notably high
Oakley Industrial Estate	Upper Hampshire Avon Chalk	Normal	Above normal