# Monthly water situation report: Wessex Area

## 1 Summary - July 2025

July was the fifth consecutive dry month in Wessex. An average of 30mm of rain, 50% of the long term average (LTA) fell across Wessex. When considered alongside the preceding 4 months, this has been the second driest 5 month period (March to July) since records began in 1871. Soil moisture deficit (SMD) initially increased in July before briefly falling following a period of rainfall in the middle of the month. By the end of July, SMD was rising again and was close to the historic maximum. Monthly mean flows recorded across Wessex in July were largely below normal or notably low. Daily mean flows in July largely peaked around 20 July following rain on 19 July. The majority of groundwater sites, including most sites monitoring the Chalk aquifer, reported below normal or notably low levels at the end of July. The exceptions were Didmarton and Overcompton which both recorded normal levels and Oakley Industrial Estate which recorded exceptionally low levels. Overall reservoir levels for Wessex Water were approximately 57% capacity at the end of July while for Bristol Water, levels were approximately 52% capacity.

### 1.1 Rainfall

An average of 30mm of rain fell across Wessex in July (50% of the LTA). This is the fifth consecutive dry month, resulting in the second driest 5 month period (March to July) since records began in 1871 and the driest since 1976. Most rain in July occurred on a few days in the middle and towards the end of the month. The highest average daily rainfall across Wessex was on 19 July which accounted for 25% of the total rain for the month. The lowest relative rainfall was recorded in Poole Harbour (39% of the LTA). The highest relative monthly rainfall was recorded in the Little Avon (71% of the LTA). In July, almost all hydrological areas in Wessex received below normal rainfall overall.

Over the past 3 months, the majority of hydrological areas in Wessex received notably low rainfall. The exceptions were 3 areas to the south which received below normal rainfall. Over the past 6 months, the majority of areas in the north of Wessex received exceptionally low rainfall while the majority of areas in the south of Wessex received notably low rainfall. Over the past 12 months, all hydrological areas in Wessex have received normal rainfall.

### 1.2 Soil moisture

SMD in Wessex initially continued to increase for the first week of July. Following rain in the middle of July, SMD decreased briefly but was rising again by the end of the month. Throughout July, SMD remained relatively close to the historic maximum for this time of year. Across most hydrological areas in the north and west of Wessex, SMD was in the range of 101mm to 130mm at the end of July. In most hydrological areas in the south of Wessex, SMD

was between 131 and 160mm. For most areas of Wessex, SMD at the end of July was between 26mm and 50mm greater than the LTA. For the lower Hampshire Avon and Poole Harbour and Purbeck in the south of Wessex however, SMD was between 51mm to 75mm greater than the LTA at the end of July.

## 1.3 River flows

In July, most flow sites in Wessex received either below normal or notably low monthly mean flows. There were 3 sites in the south and west of Wessex which recorded normal monthly mean flows in July and 3 sites in the north and west of Wessex which recorded exceptionally low monthly mean flows. Most sites monitoring flows on or downstream of the Chalk aquifer recorded either below normal or notably low flows. Relative monthly mean flows were slightly higher across most sites in the south of Wessex on the Chalk aquifer as flows were supported by baseflow from the aquifer. Daily mean flows at most flow sites peaked around 20 July following the rain on 19 July.

## 1.4 Groundwater levels

Following 5 consecutive dry months, the majority of groundwater sites in Wessex, including most sites monitoring the Chalk aquifer, ended July reporting either below normal or notably low levels. Oakley Industrial Estate (monitoring the Chalk) and Chipley (monitoring the Sandstone) were the only sites to report exceptionally low levels at the end of the month. For all monitoring sites, groundwater levels decreased throughout the month.

## 1.5 Reservoir stocks

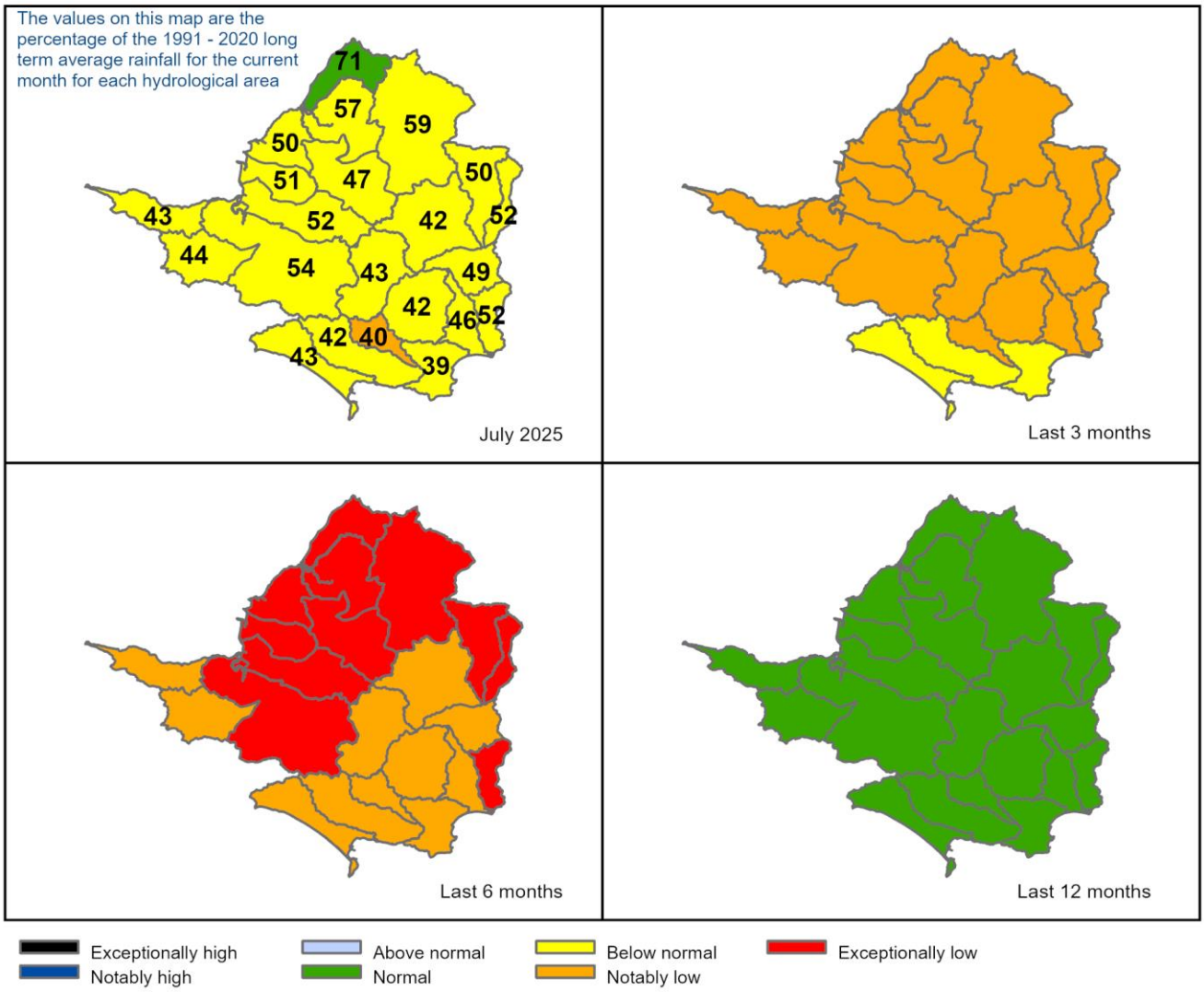
Both Wessex Water and Bristol Water reservoir levels continued to decrease throughout July. The combined levels at the end of the month for Wessex Water were approximately 57% capacity while for Bristol Water, combined levels were approximately 52% capacity. For both water companies this is notably lower than reservoir levels recorded this time last year. For Wessex Water, reservoir levels at the end of July were similar to this time of year in 1995 while for Bristol Water, levels were lower than the end of July 1995.

Author: Wessex Hydrology, hydrology.wessex@environment-agency.gov.uk

# 2 Rainfall

## 2.1 Rainfall map

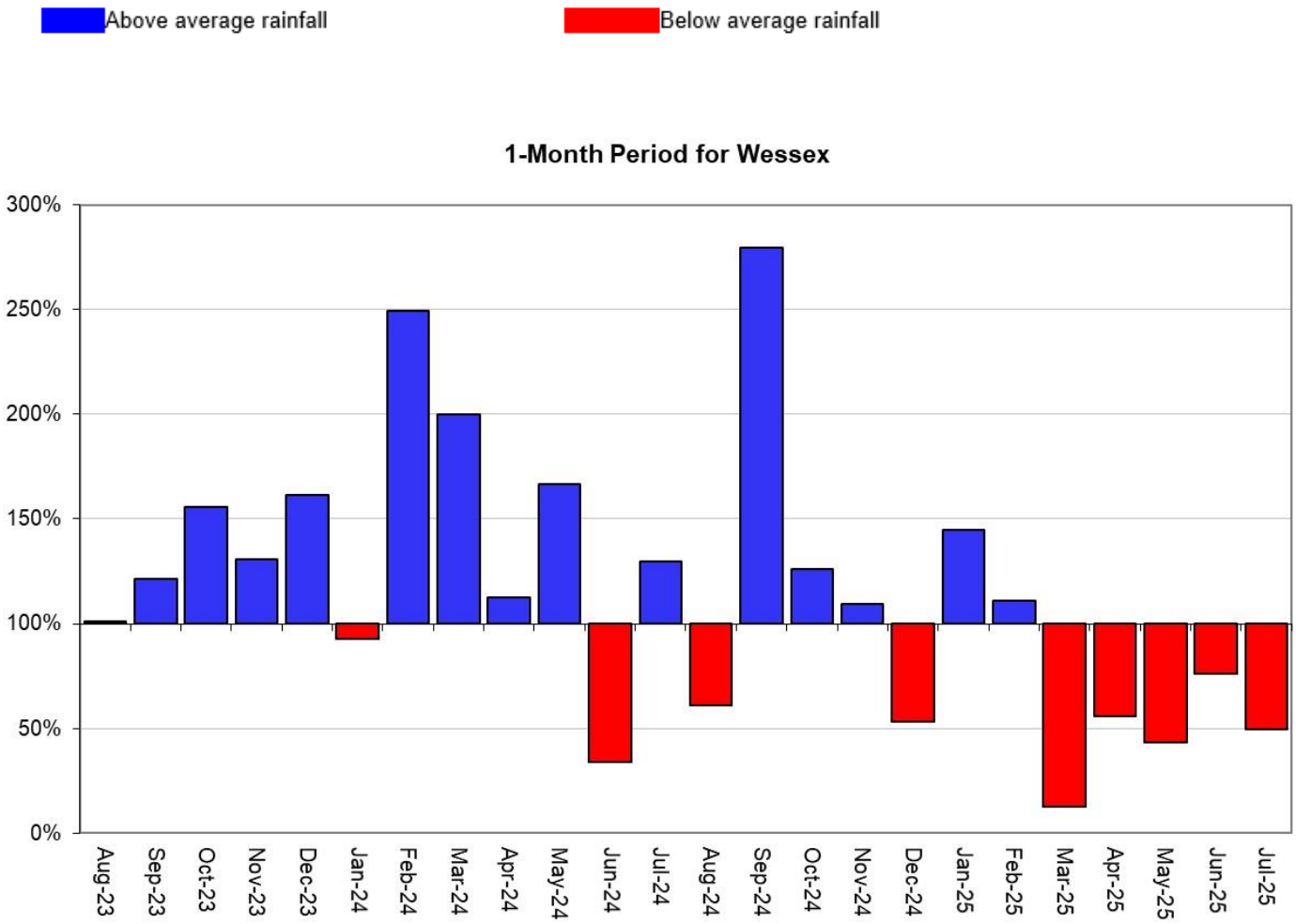
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 July 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals between 1991 and 2020. Table available in the appendices with detailed information.




Rainfall data for October 2023 onwards, 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 1991 to 2020 long term average for each region and for England.

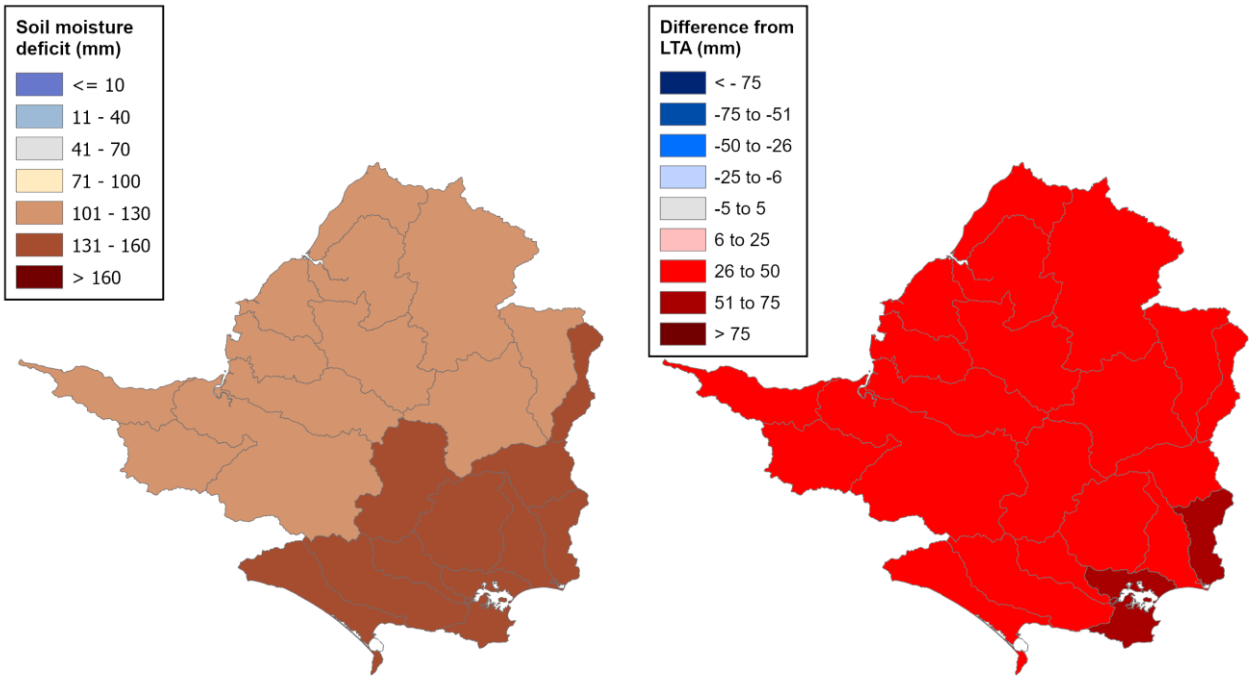



Rainfall data for October 2023 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2025). Rainfall data prior to October 2023, extracted from Met Office HadUK 1km gridded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

# 3 Soil moisture deficit

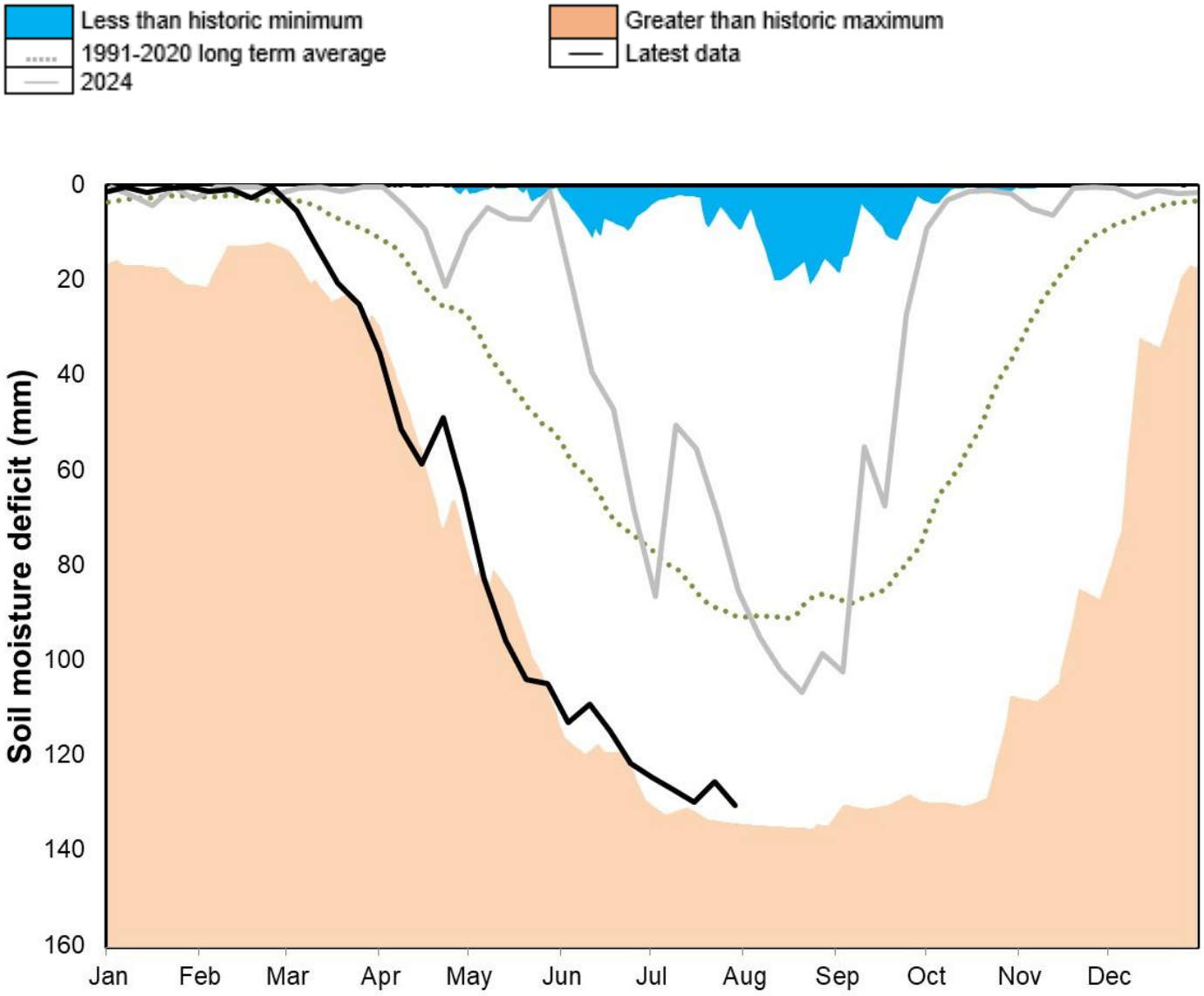
## 3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending 31 July 2025. Shows the difference (mm) of the actual soil moisture deficit from the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.



## 3.2 Soil moisture deficit charts

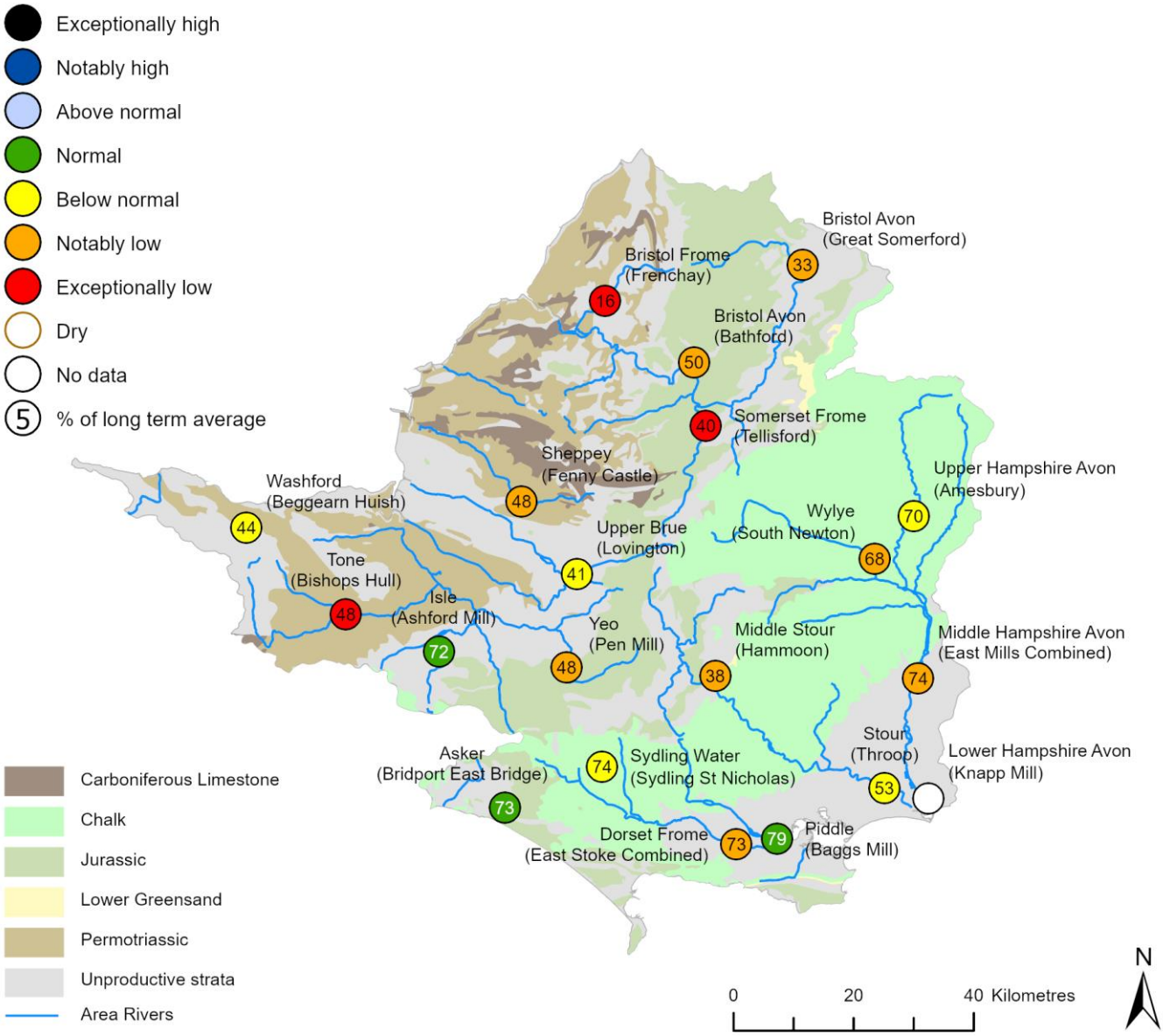
Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1991 to 2020 long term average. Weekly MORECS data for real land use.



# 4 River flows

## 4.1 River flows map

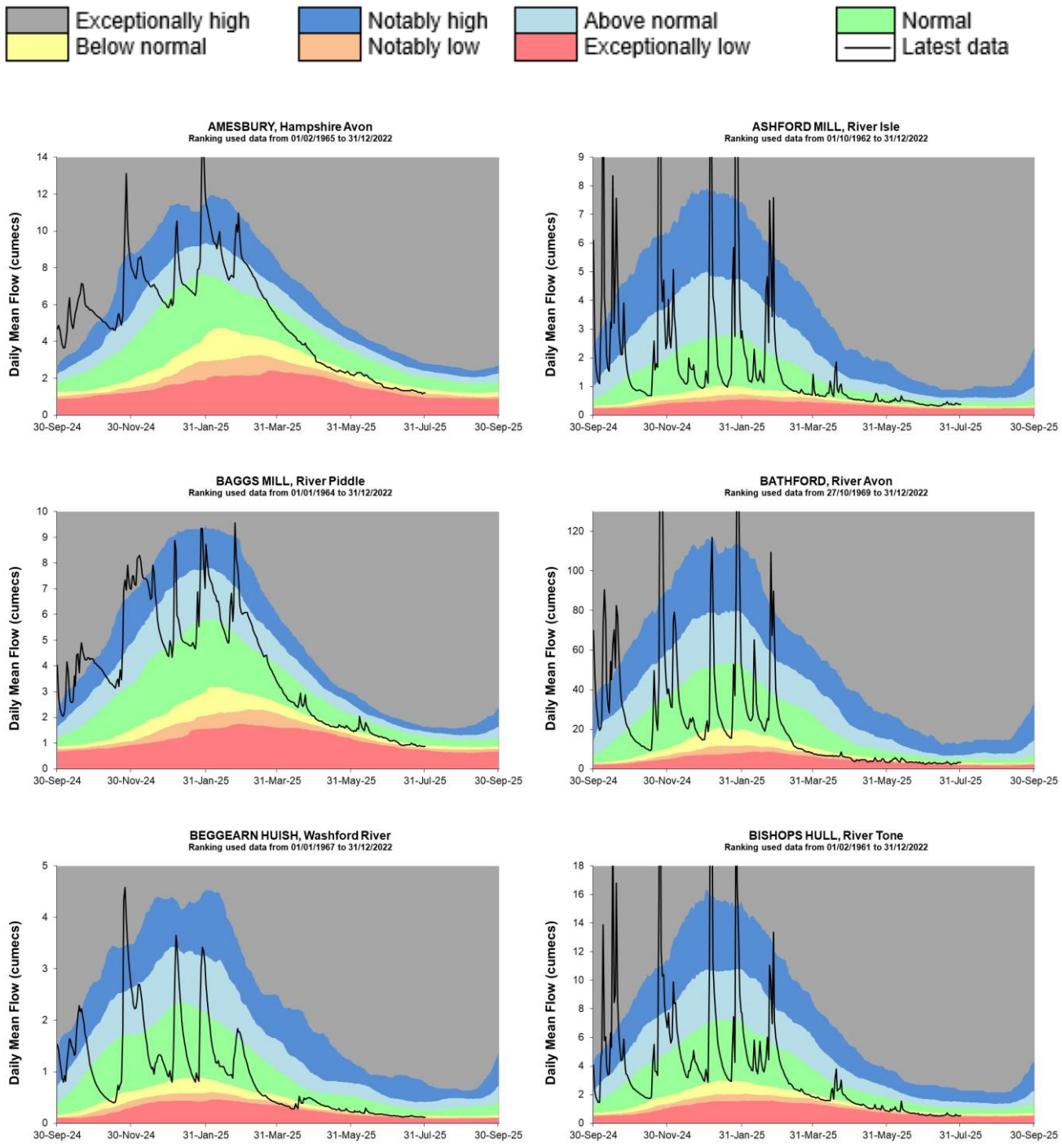
Figure 4.1: Monthly mean river flow for indicator sites for July 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic July monthly means Table available in the appendices with detailed information.



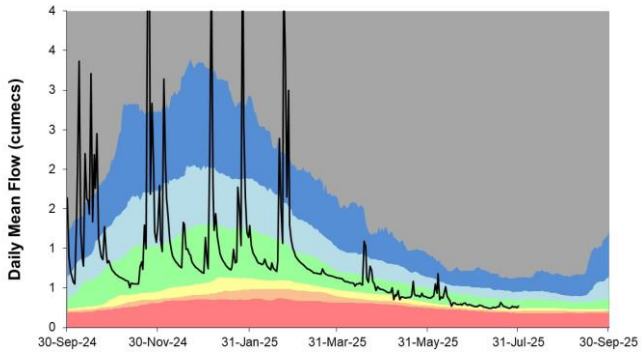

(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2025. The Dorset Stour at Throop should be treated with caution due to data issues.

## 4.2 River flow charts

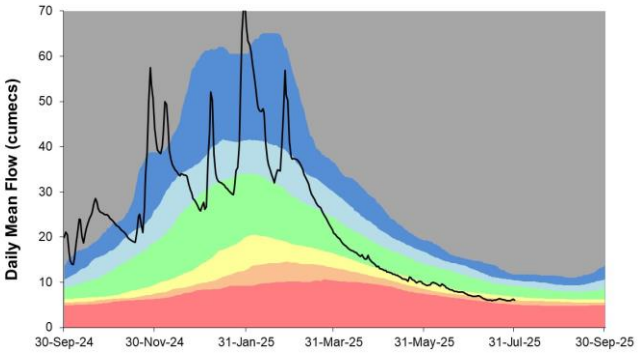
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows.



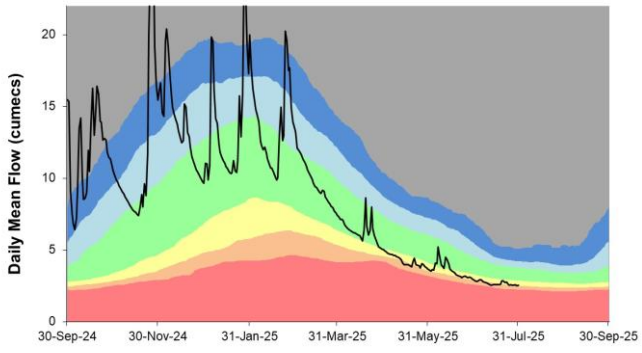
**BRIDPORT EAST BRIDGE, River Asker**
Ranking used data from 01/03/1996 to 31/12/2022



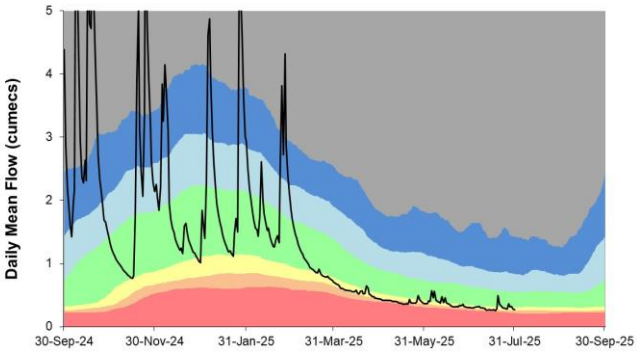

**EAST MILLS COMBINED, Hampshire Avon**
Ranking used data from 01/11/1965 to 31/12/2022



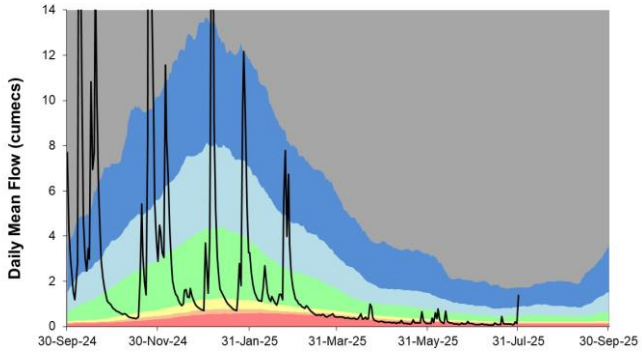

**EAST STOKE COMBINED, Dorset Frome**
Ranking used data from 01/10/1965 to 31/12/2022



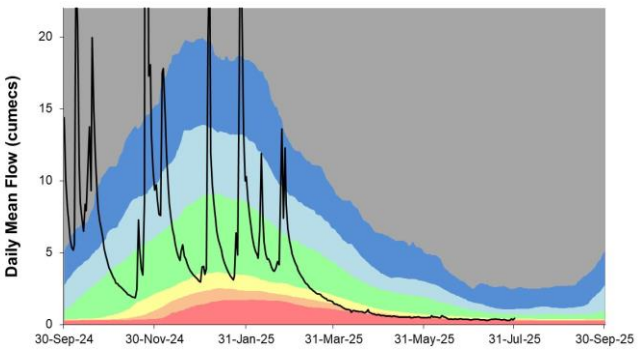

**FENNY CASTLE , River Sheppey**
Ranking used data from 01/01/1964 to 31/12/2022



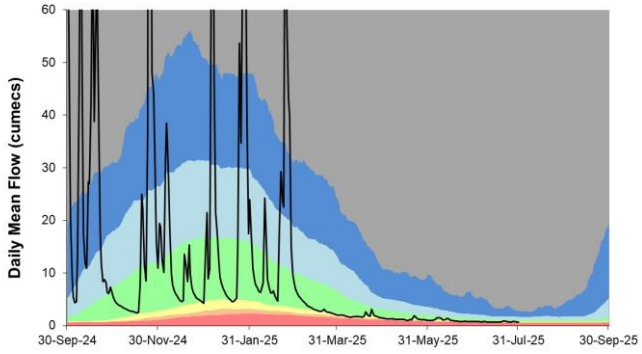

**FRENCHAY, Bristol Frome**
Ranking used data from 01/09/1961 to 31/12/2022



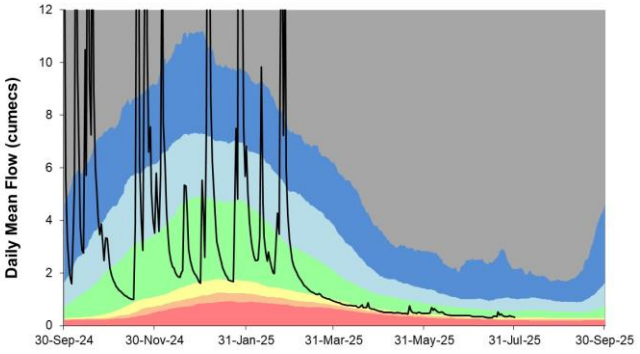

**GREAT SOMERFORD, River Avon**
Ranking used data from 16/12/1963 to 31/12/2022

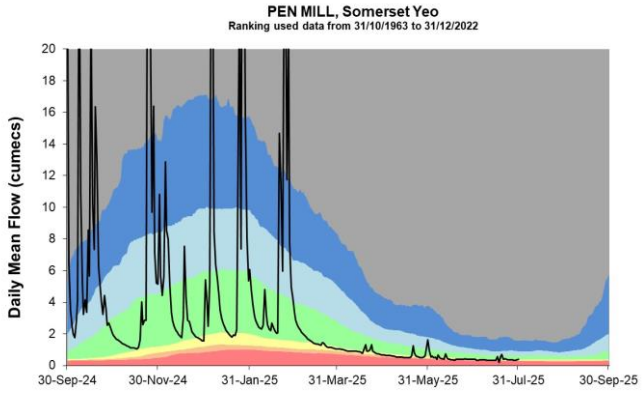


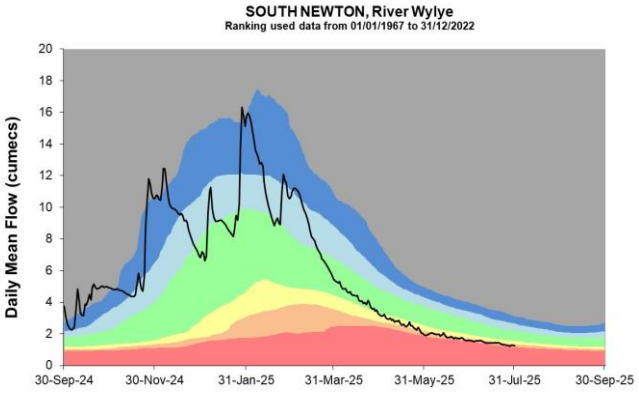

**HAMMOON, River Stour**
Ranking used data from 01/03/1968 to 31/12/2022

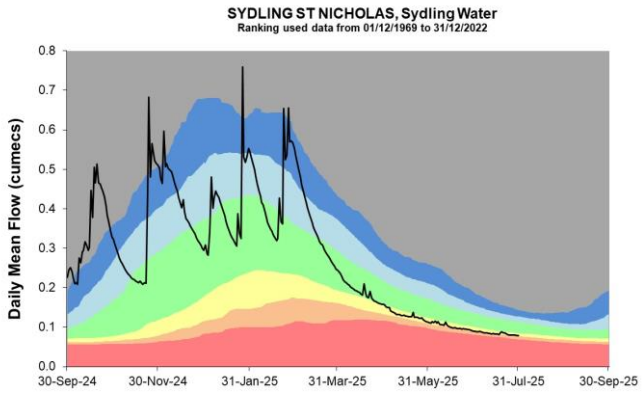


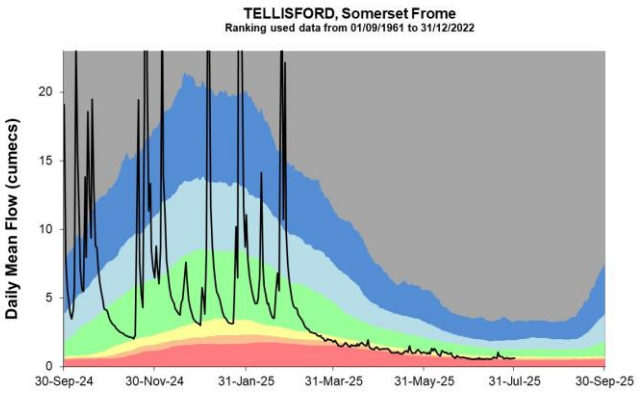

**LOVINGTON, River Brue**
Ranking used data from 01/10/1964 to 31/12/2022

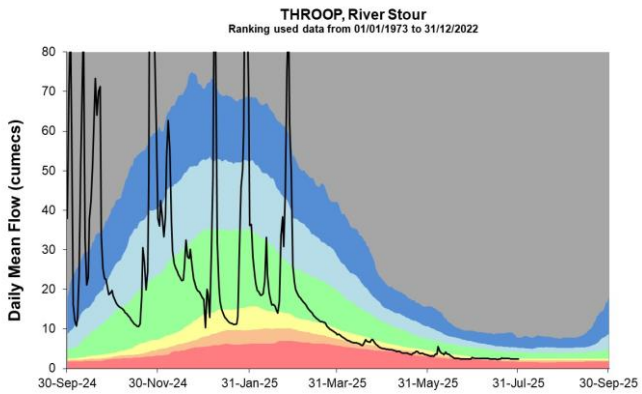




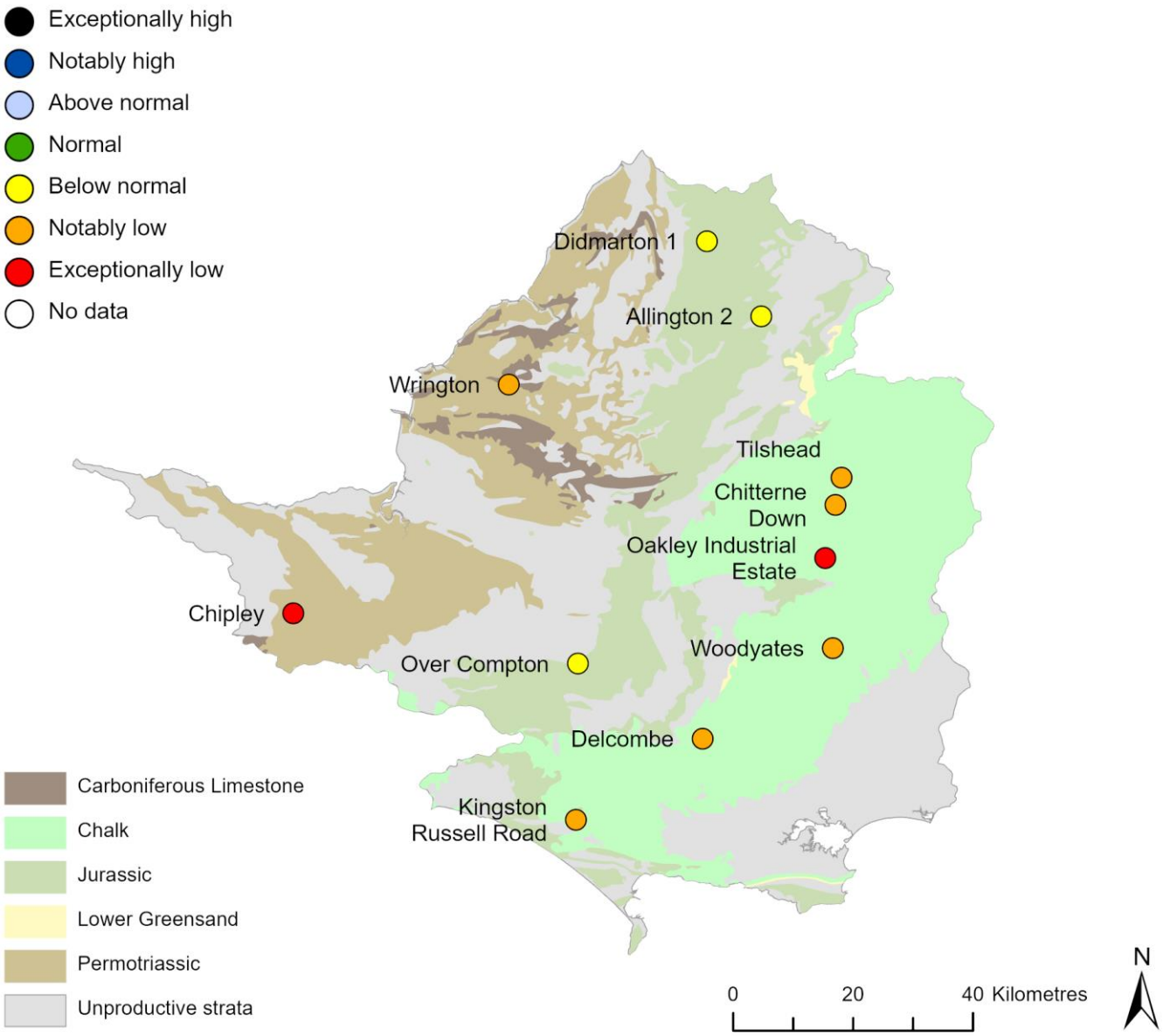




Source: Environment Agency, 2025. The Dorset Stour at Throop should be treated with caution due to data issues.

# 5 Groundwater levels

## 5.1 Groundwater levels map

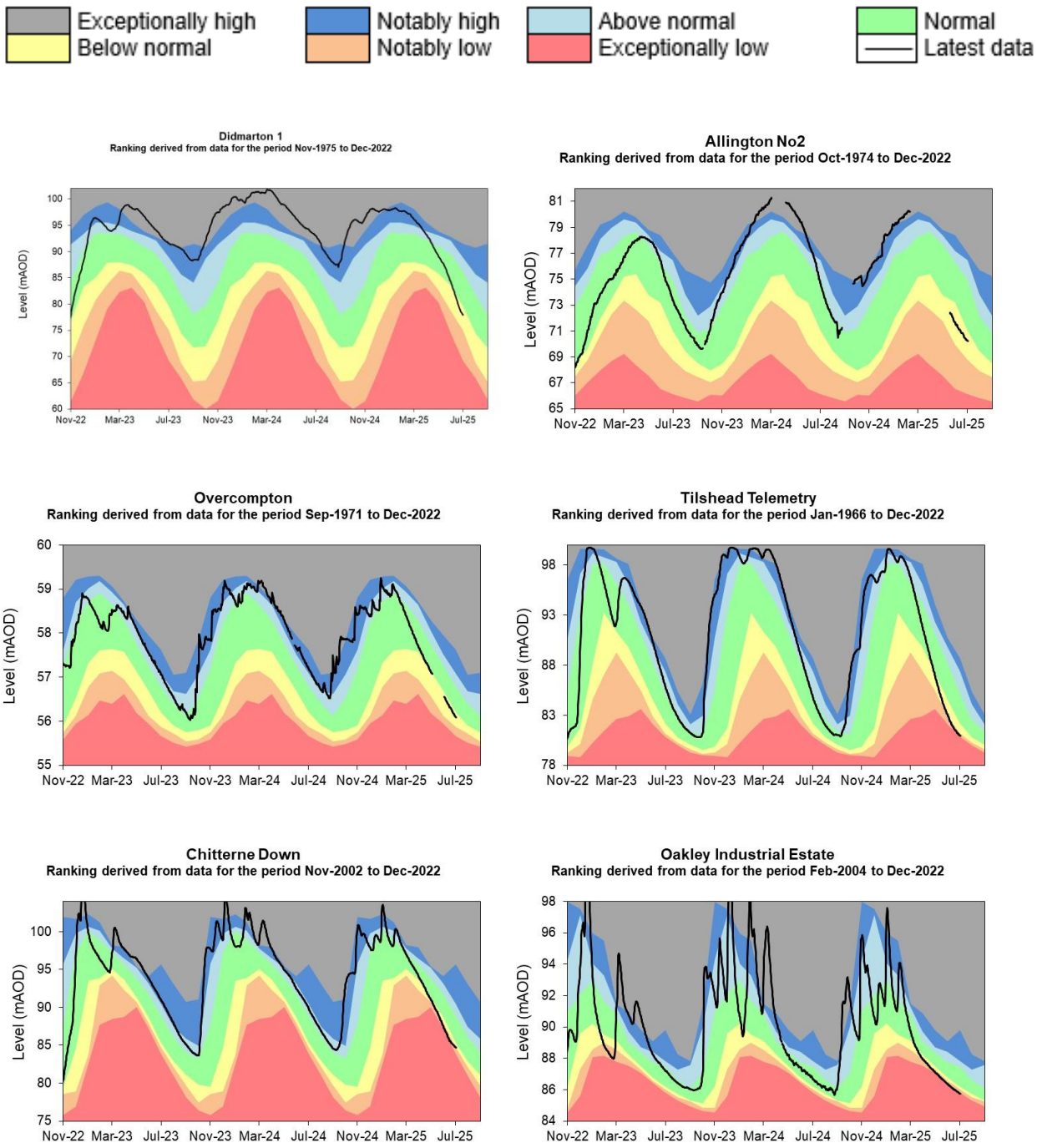
Figure 5.1: Groundwater levels for indicator sites at the end of July 2025, classed relative to an analysis of respective historic July levels. Table available in the appendices with detailed information.

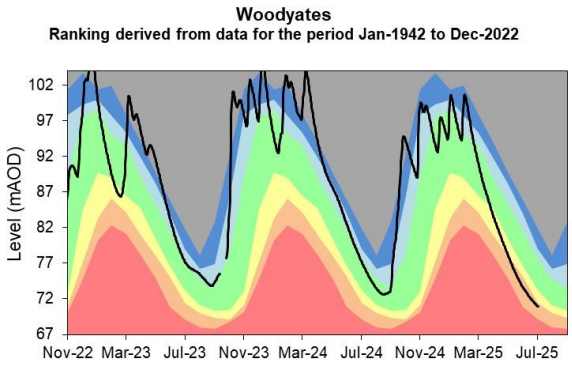


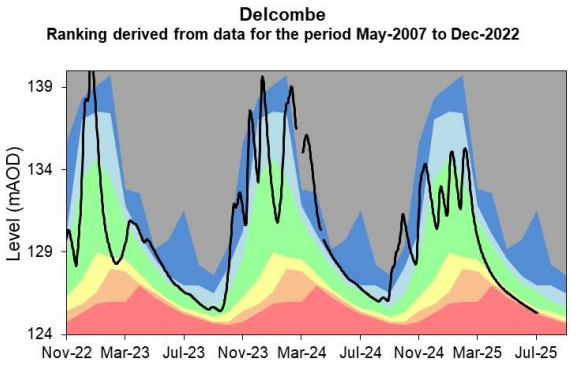

(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2025.

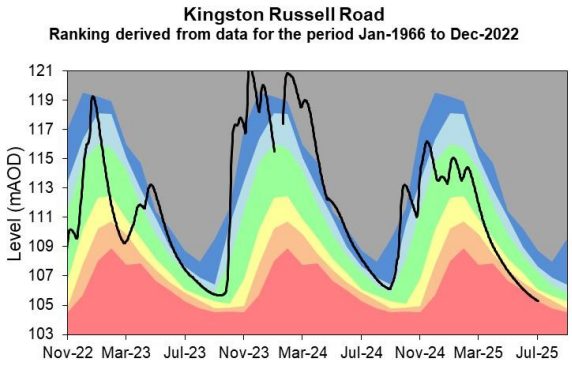
## 5.2 Groundwater level charts

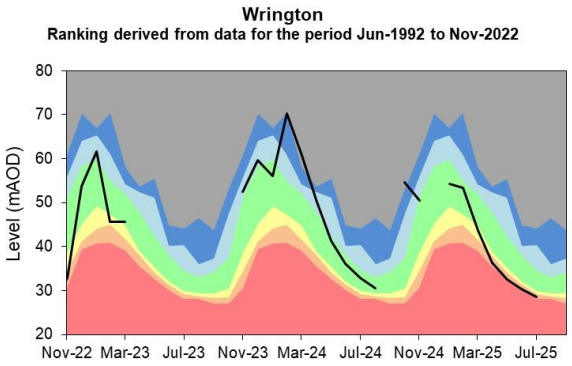
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels.

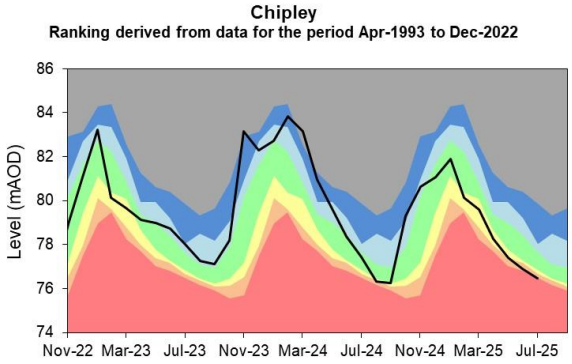




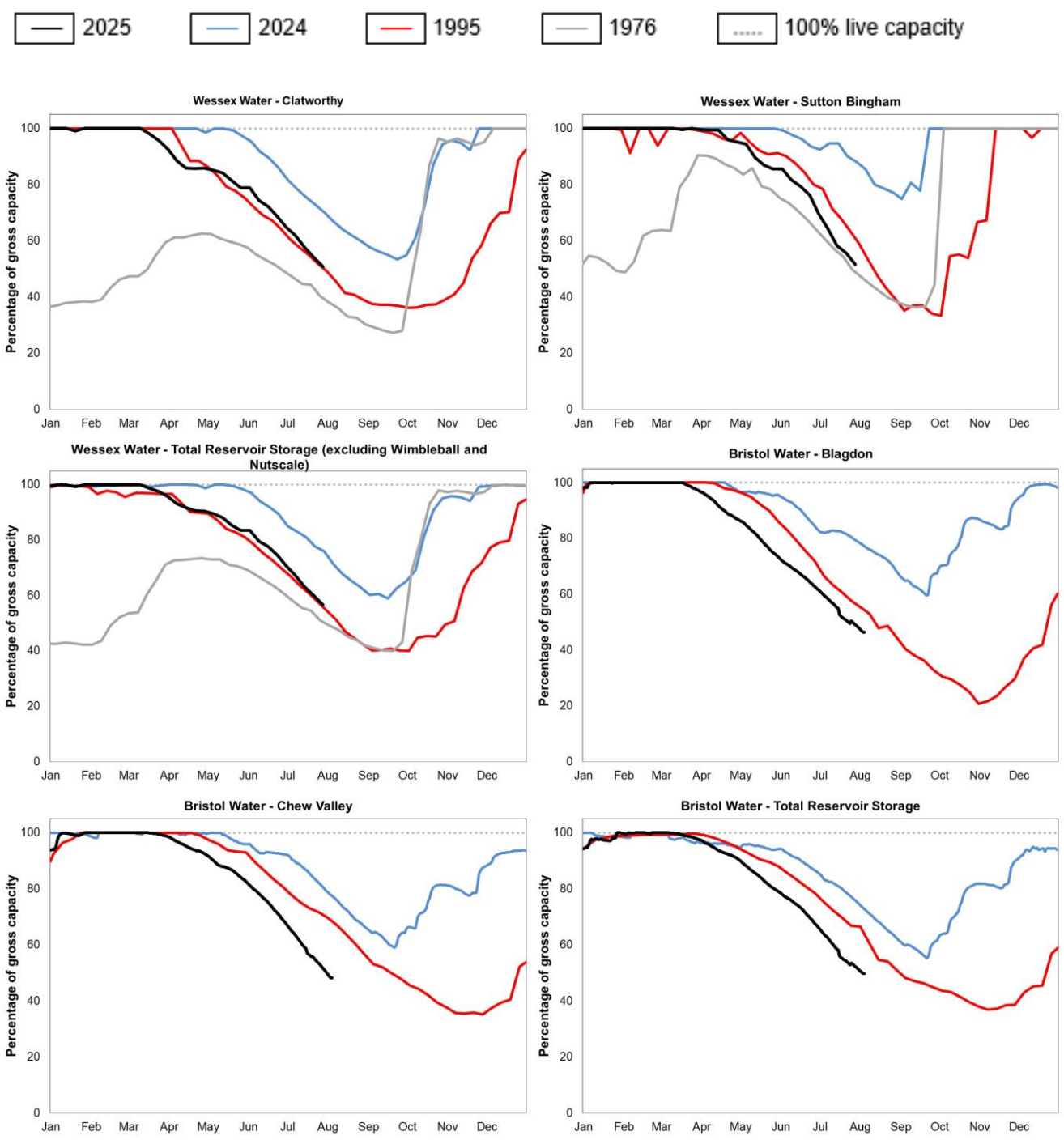




Source: Environment Agency, 2025.

# 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 July

| Area | Number of fluvial flood alerts in July | Number of coastal flood alerts in July | Number of groundwater flood alerts in July |
|---|---|---|---|
| North Wessex | 0 | 0 | 0 |
| South Wessex | 0 | 0 | 0 |

## 7.2 Flood warnings

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

| Area | Number of fluvial flood warnings in July | Number of coastal flood warnings in July | Number of groundwater flood warnings in July |
|---|---|---|---|
| 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 July

| Area | Number of fluvial severe flood warnings in July | Number of coastal severe flood warnings in July | Number of groundwater severe flood warnings in July |
|---|---|---|---|
| North Wessex | 0 | 0 | 0 |
| South Wessex | 0 | 0 | 0 |

# 8 Stream support

## 8.1 Sites providing stream support

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

| Catchment | River | Stream support site | Gauging station | End of July status |
|---|---|---|---|---|
| Bristol Avon | Chalfield Brook | South Wraxall | Great Chalfield (Wessex Water) | On |
| Bristol Avon | Chalfield Brook | Little Chalfield | Great Chalfield (Wessex Water) | On |
| Bristol Avon | Charlton Stream | Charlton | Crabb Mill | On |
| Bristol Avon | Gauze Brooke | Hullavington | Rodbourne | On |
| Bristol Avon | Horscombe Stream | Tucking Mill | No Gauge | Off |
| Bristol Avon | Luckington Brook | Luckington | Fossway | On |
| 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 | On |
| 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 | On |
| Piddle | Piddle | Alton Mill | South House & Little Puddle | On |
| Piddle | Piddle | Morningwell | South House & Little Puddle | On |
| Piddle | Piddle | Briantspuddle | Briantspuddle | On |
| Dorset Stour | Crichel Stream | Long Crichel | No Gauge | On |
| Dorset Stour | Gussage Stream | Gussage All Saints | Bowerswain | On |
| Dorset Stour | Allen | Wyke Down | All Hallows | On |
| Dorset Stour | Pimperne Stream | Pimperne | No Gauge | Off |
| Hampshire Avon | Bourne | Porton | Salisbury Bourne | On |
| Hampshire Avon | Chitterne Brook | Codford Road | Codford | On |
| Hampshire Avon | Wylye | Brixton Deverill | Brixton Deverill & Heytesbury | On |
| Hampshire Avon | Wylye | Kingston Deverill | Brixton Deverill & Heytesbury | On |

# 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 July.

| Catchment | Number of licences at restrict at the end of July | Number of licences at cease at the end of July |
|---|---|---|
| Bristol Avon | 1 | 2 |
| Dorset | 3 | 4 |
| Hampshire Avon | 3 | 8 |
| Somerset | 2 | 12 |

# 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 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).

## 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 | Jul 2025 rainfall % of long term average 1991 to 2020 | Jul 2025 band | May 2025 to July cumulative band | Feb 2025 to July cumulative band | Aug 2024 to July cumulative band |
|---|---|---|---|---|---|
| Axe | 51 | Below Normal | Notably low | Exceptionally low | Normal |
| Brue | 52 | Below Normal | Notably low | Exceptionally low | Normal |
| Little Avon | 71 | Normal | Notably low | Exceptionally low | Normal |
| Lower Bristol Avon And Bristol Frome | 57 | Below Normal | Notably low | Exceptionally low | Normal |
| Lower Dorset Stour And River Crane | 46 | Below Normal | Notably low | Notably low | Normal |
| Lower Hampshire Avon | 52 | Below Normal | Notably low | Exceptionally low | Normal |
| Mendips And River Chew | 47 | Below Normal | Notably low | Exceptionally low | Normal |
| Middle And Upper Bristol Avon | 59 | Below Normal | Notably low | Exceptionally low | Normal |

| | | | | | |
|---|---|---|---|---|---|
| Middle Dorset Stour | 42 | Below Normal | Notably low | Notably low | Normal |
| Middle Hampshire Avon | 49 | Below Normal | Notably low | Notably low | Normal |
| Parrett | 54 | Below Normal | Notably low | Exceptionally low | Normal |
| Poole Harbour And Purbeck | 39 | Below Normal | Below normal | Notably low | Normal |
| River Bourne | 52 | Below Normal | Notably low | Exceptionally low | Normal |
| River Frome | 42 | Below Normal | Below normal | Notably low | Normal |
| River Piddle | 40 | Notably Low | Notably low | Notably low | Normal |
| Tone | 44 | Below Normal | Notably low | Notably low | Normal |
| Upper Dorset Stour | 43 | Below Normal | Notably low | Notably low | Normal |
| Upper Hampshire Avon | 50 | Below Normal | Notably low | Exceptionally low | Normal |
| West Dorset Streams | 43 | Below Normal | Below normal | Notably low | Normal |
| West Somerset Streams | 43 | Below Normal | Notably low | Notably low | Normal |

| | | | | | |
|---|---|---|---|---|---|
| Wylye And Nadder | 42 | Below Normal | Notably low | Notably low | Normal |
| Yeo And Kenn | 50 | Below Normal | Notably low | Exceptionally low | Normal |

## 11.2 River flows table

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

| | | | | |
|---|---|---|---|---|
| Great Somerford | Bristol Avon | Bristol Avon | Notably low | Notably low |
| Hammoon | Middle Stour | Dorset Stour | Notably low | Below normal |
| Knapp Mill | Lower Hampshire Avon | Hampshire Avon | Data unavailable | Data unavailable |
| Lovington | Upper Brue | Brue | Below normal | Below normal |
| Pen Mill | Yeo | Parrett | Notably low | Notably low |
| South Newton | River Wylye | Hampshire Avon | Notably low | Notably low |
| Sydling St Nicholas | Sydling Water | Dorset Frome | Below normal | Below normal |
| Tellisford | Somerset Frome | Bristol Avon | Exceptionally low | Below normal |
| Throop | Lower Stour | Dorset Stour | Below normal | Notably low |

## 11.3 Groundwater table

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

| | | | |
|---|---|---|---|
| Chipley | Somerset Tone Otter Sandstone | Notably low | Notably low |
| Wrington | North Somerset Carboniferous Limestone | Below normal | Notably low |