Monthly water situation report: Devon and Cornwall Area

1 Summary - August 2025

Devon and Cornwall received 68% of the August long term average (LTA) rainfall, which was normal for the time of year. Soil moisture deficit increased through most of August before decreasing significantly in response to the rainfall towards the end of the month. Monthly mean river flows were notably low to normal for the time of year across the area. Groundwater levels ended the month between below normal and exceptionally high for the time of year. Total reservoir storage across Devon and Cornwall ended the month at 53%, with Wimbleball, Colliford and Roadford at 39%, 48% and 65% respectively at the end of August.

1.1 Rainfall

Devon and Cornwall received 65mm of rain during August (68% of the August LTA), which is normal for the time of year. The most significant periods of rain occurred on 4, 28 and 30-31 August, with the most intense rainfall falling on 28 August.

In August, rainfall was normal in Cornwall and in most of Devon, except for the Torridge and Hartland Streams, the Taw and North Devon Streams, and the Exe hydrological areas where cumulative rainfall was below normal for the time of year. Cumulative rainfall was normal in the last 3 months, across much of Devon and Cornwall, except the Exe and the Otter Sid Axe and Lim, where rainfall was below normal for the time of year. In the last 6 months, cumulative rainfall was normal for most of Cornwall (apart from Seaton Looe and Fowey), below normal for the western Devon hydrological areas, and notably low for the eastern Devon hydrological areas, for the time of year. In the last 12 months, cumulative rainfall across Devon and Cornwall was normal for the time of year.

1.2 Soil moisture deficit

SMD increased through much of August, exceeding the SMD seen in August 2022, and nearing the historic maximum before decreasing significantly in response to the rainfall towards the end of the month. Soils ended the month drier than the LTA for the time of year and slightly higher than the SMD at the same time in 2024.

The average deficit at the end of August was between 71 and 100mm in most of Devon and Cornwall except for the Seaton, Looe and Fowey, Tamar, and Teign and Torbay hydrological

areas where the average deficit was between 41 and 70mm. The average deficit was lowest in the Avon, Dart and Erme hydrological area, where the average deficit was between 11 and 40mm and highest in the Otter, Sid, Axe and Lim hydrological area, where the average deficit was between 101 and 130mm.

SMD was 26 to 50mm drier (higher) than the long term average deficit for August in North Devon, the Exe and North Cornwall. All other hydrological areas ranged from 25mm drier (higher) than the LTA to 25mm wetter (lower) than the LTA for August.

1.3 River flows

August monthly mean river flows were below normal at most sites across Devon and Cornwall, except for some sites in mid and north Devon where monthly mean levels were notably low for the time of year. Two sites, Truro on the River Kenwyn and Whitford on the River Axe recorded normal monthly mean river flows for the time of year.

All sites experienced a drop in daily mean river flows through most of August, with all sites reaching below normal to exceptionally low flows, before experiencing a spike in river levels after the heavy rain towards the end of the month. The most prominent peaks were recorded at the River Kenwyn (Truro), the River Gannel (Gwills) and the River Otter (Dotton); a much less significant response was recorded at the River Torridge (Torrington), the River Taw (Umberleigh), the River Teign (Chudleigh), and the River Exe (Thorverton). On 31 August, reporting sites recorded notably low to notably high daily mean flows for the time of year.

Due to data accuracy concerns, St Erth on the River Hayle has been excluded from the August report.

1.4 Groundwater levels

On 31 August, groundwater levels were classed as follows:

- Below normal at Winnards Perch (monitoring the Staddon Formation)
- Normal at Bussells No7A (monitoring the Dawlish sandstone), Coleford Production (monitoring the Permian Breccias and Sandstones), Woodbury Common No2 (monitoring the Budleigh Salterton Pebble Beds), and Woodleys No1 (monitoring the Otterton Sandstone Formation)
- Above normal at Branscombe Lane (monitoring the Dawlish Sandstone)
- Exceptionally high at Whitlands (monitoring the Upper Greensand).

Groundwater levels at all sites continue to be in recession, which is normal for the time of year.

1.5 Reservoir stocks

Total reservoir storage was 53% at the end of August, which is an overall decrease of 12% since the end of July. This is higher than storage at the same time in 2022 (the most recent drought year), which was 39%. At the end of August, storage at Wimbleball, Colliford and Roadford was 39%, 48% and 65% respectively, compared to 35%, 30% and 46% at the same time in 2022.

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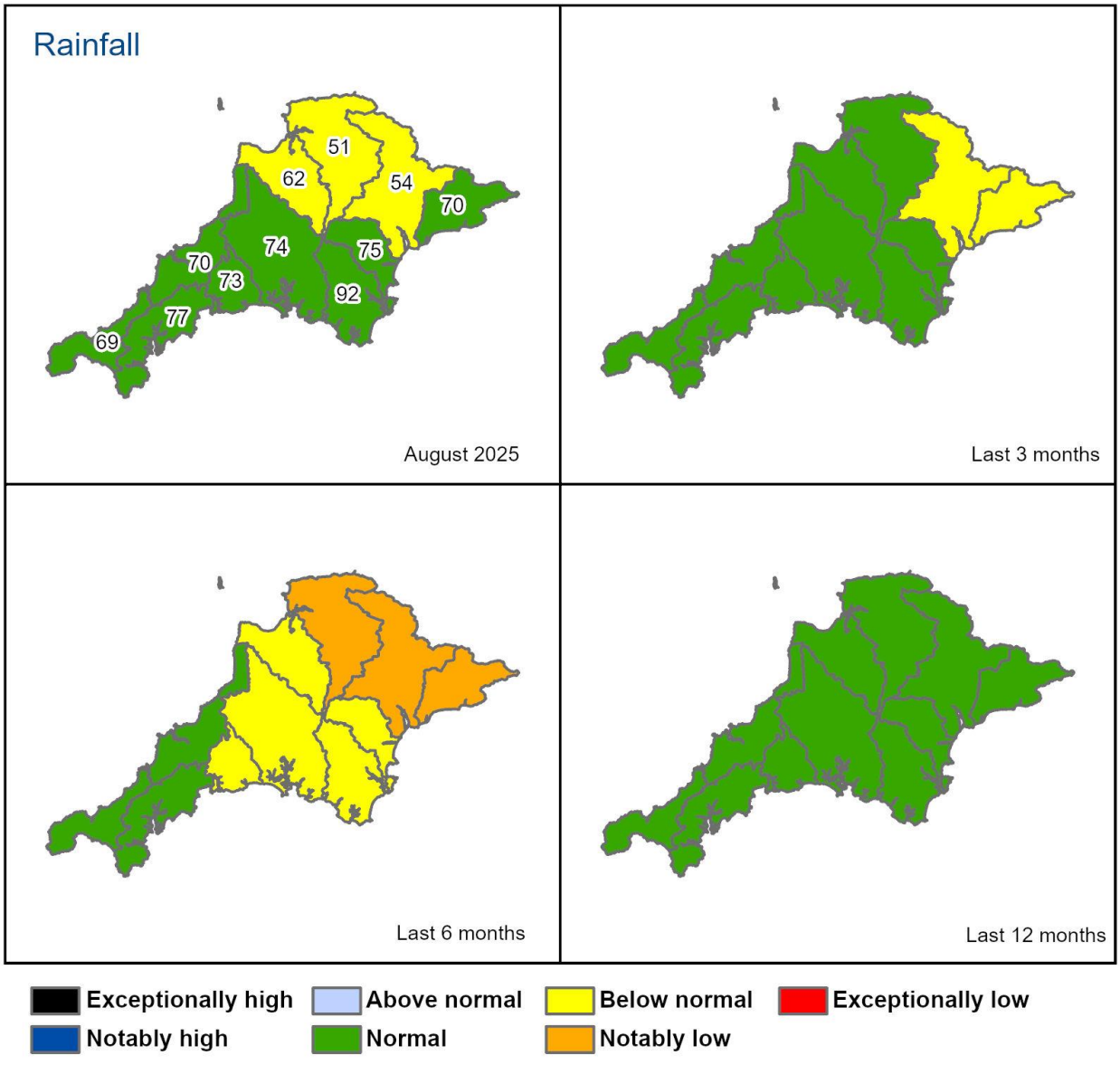
2 Rainfall

2.1 Rainfall map

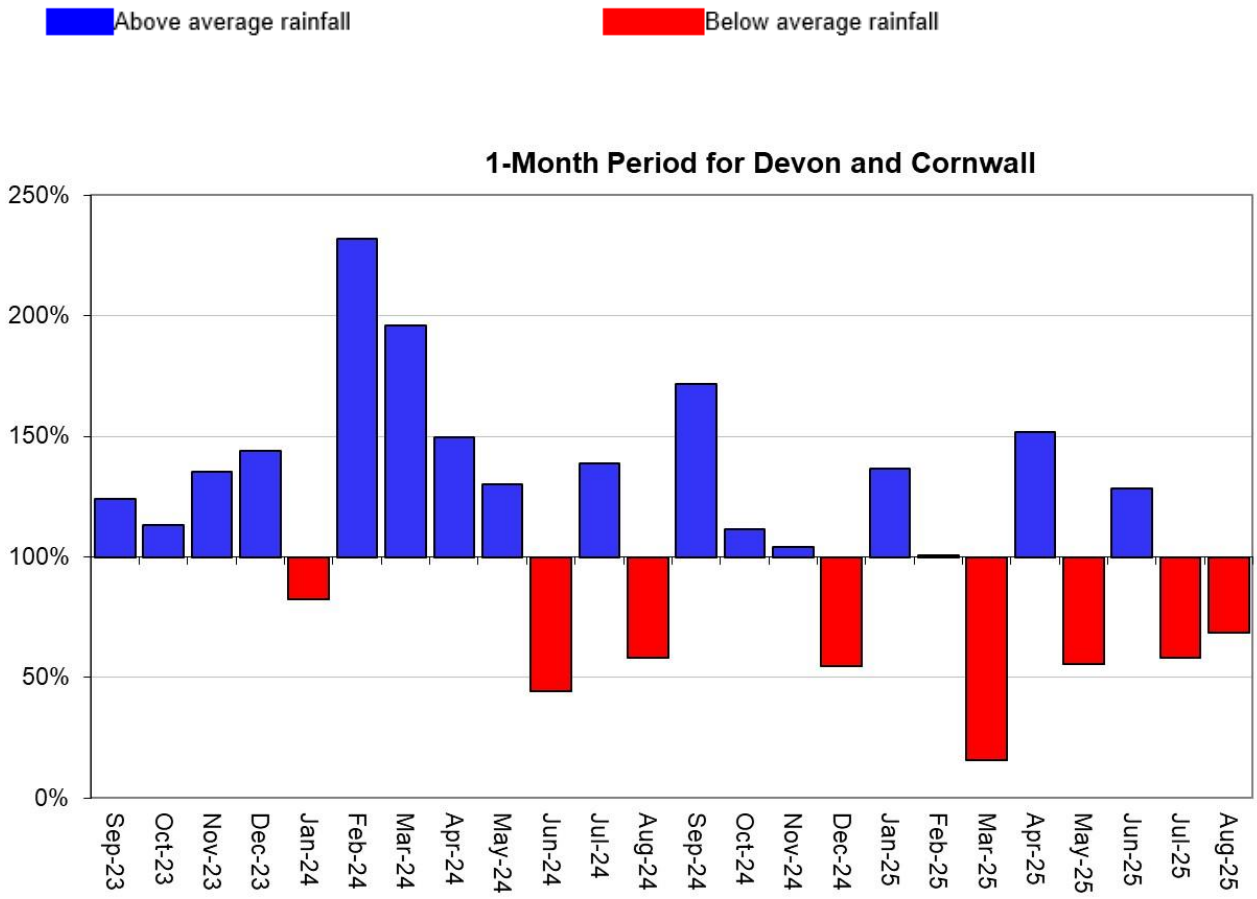
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 31 August 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2025). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved. Environment Agency, 100024198, 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 Devon and Cornwall area.

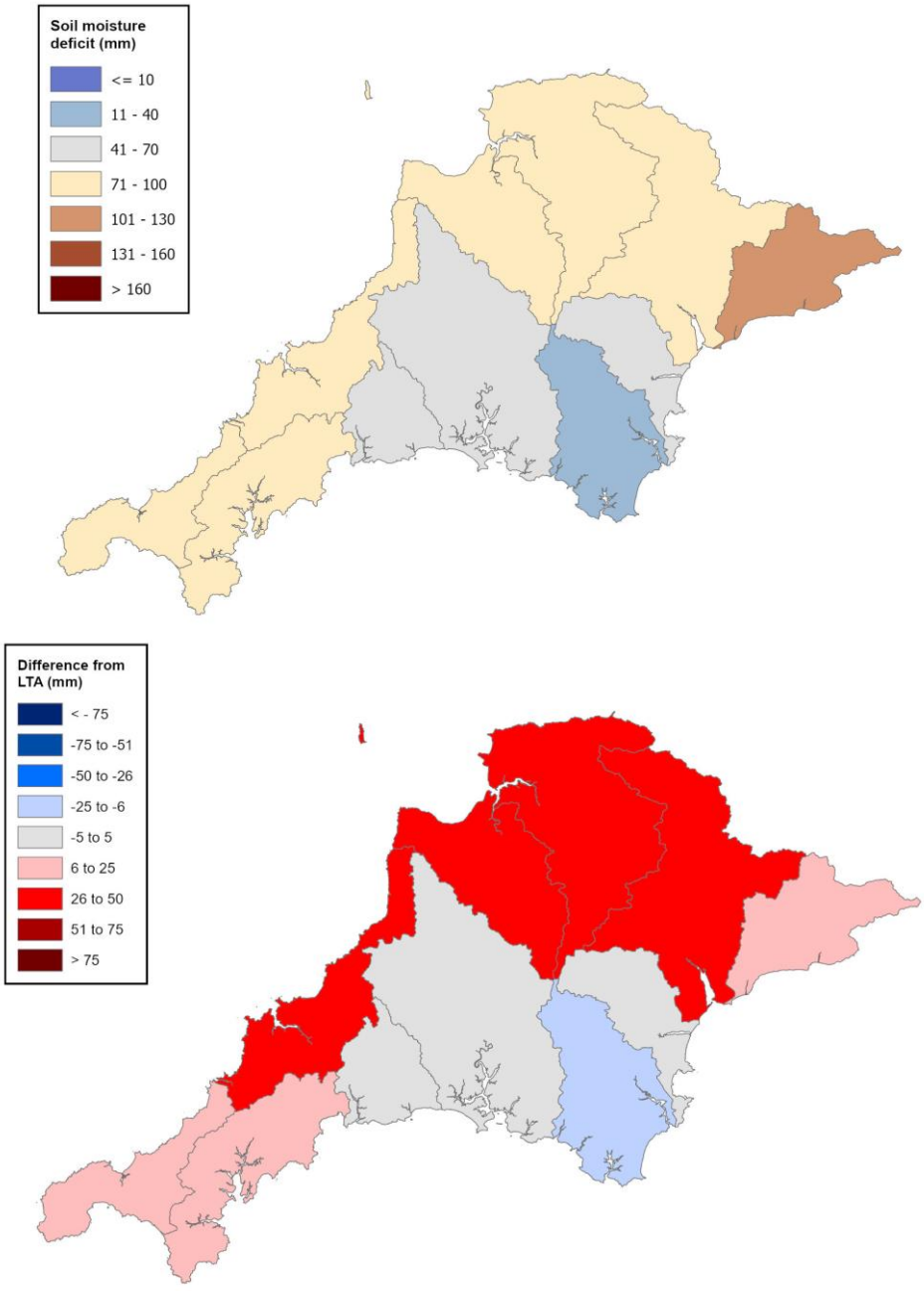


Rainfall data for 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2025). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

3 Soil moisture deficit

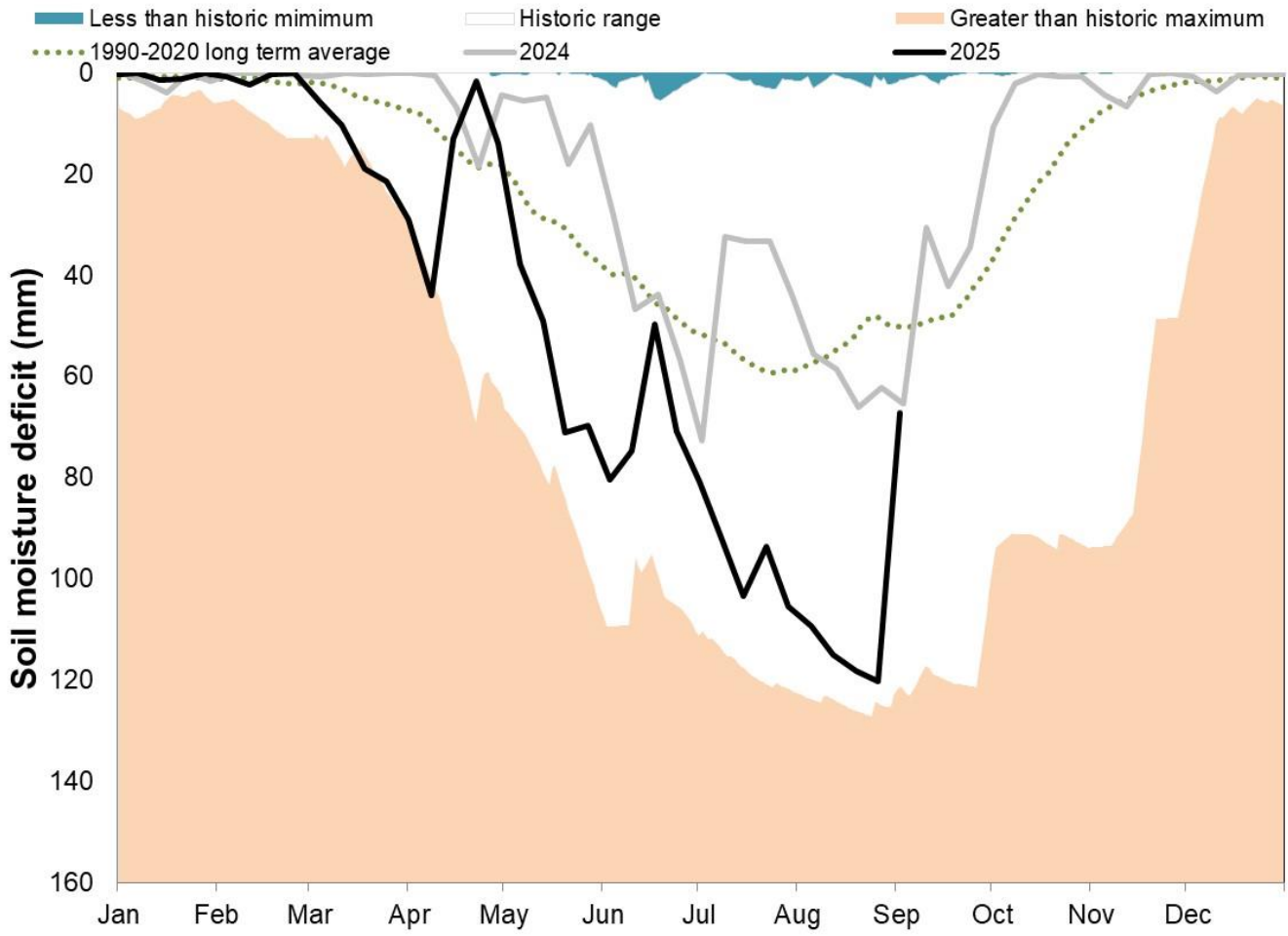
3.1 Soil moisture deficit map

Figure 3.1: Top map shows soil moisture deficit for week ending 31 August 2025. Bottom map shows the difference (mm) between the actual soil moisture deficit and the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.



3.2 Soil moisture deficit charts

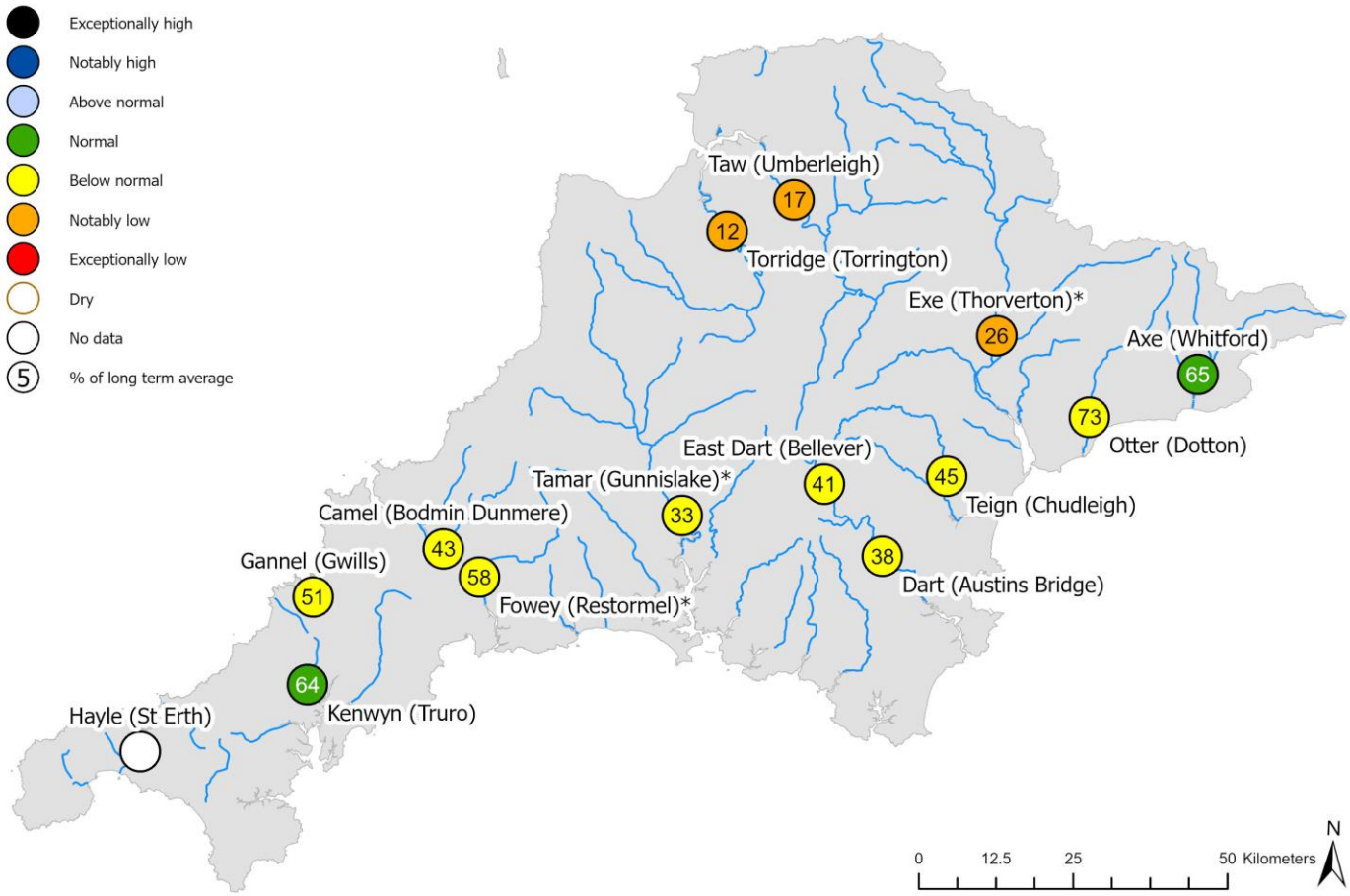
Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1991 to 2020 long term average. Weekly MORECS data for real land use.



4 River flows

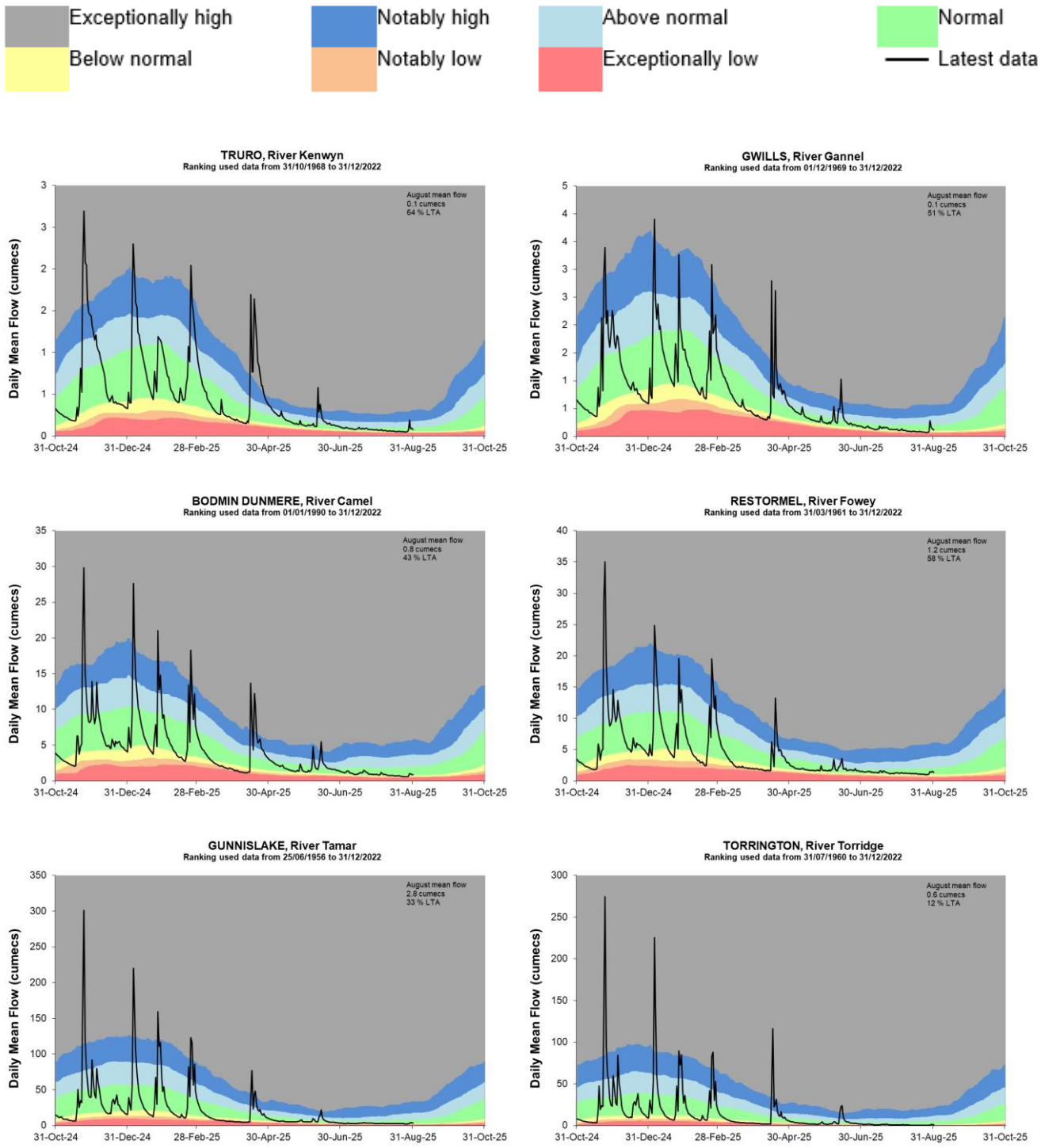
4.1 River flows map

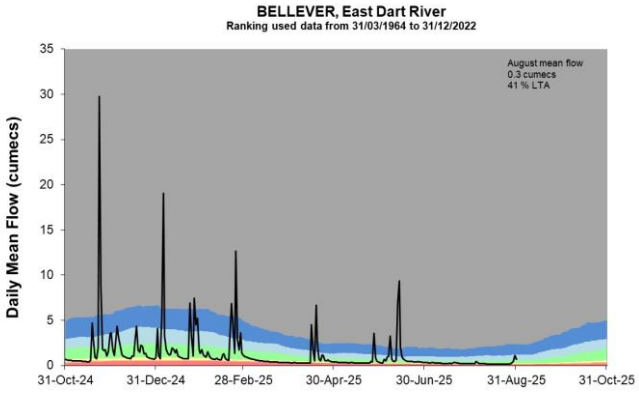
Figure 4.1: Monthly mean river flow for indicator sites for August 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic August monthly means. Table available in the appendices with detailed information.

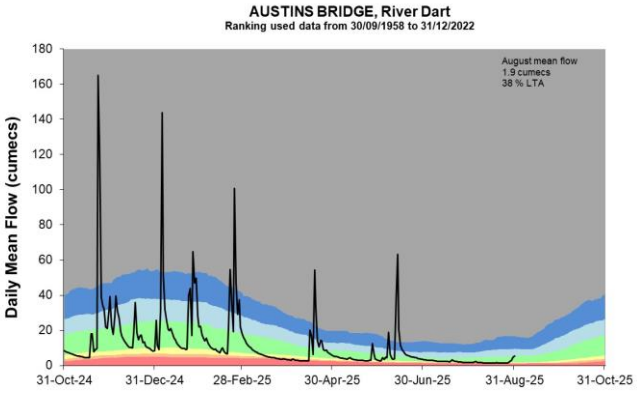


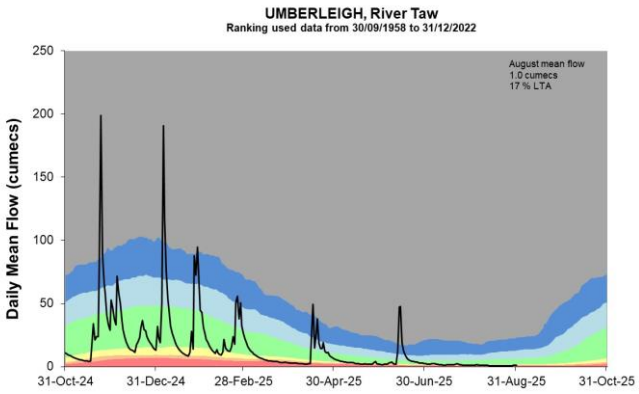
4.2 River flow charts

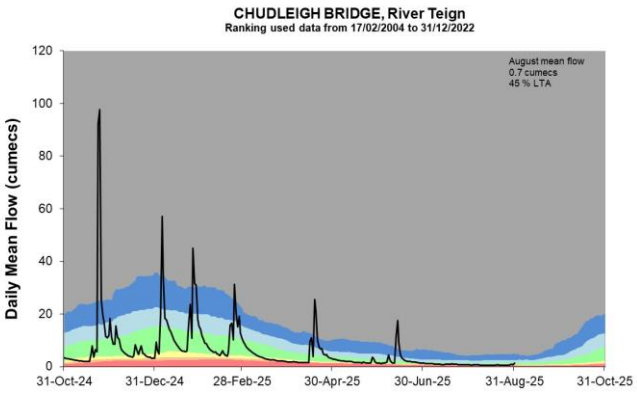
Figure 4.2: Daily mean river flow for indicator sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.

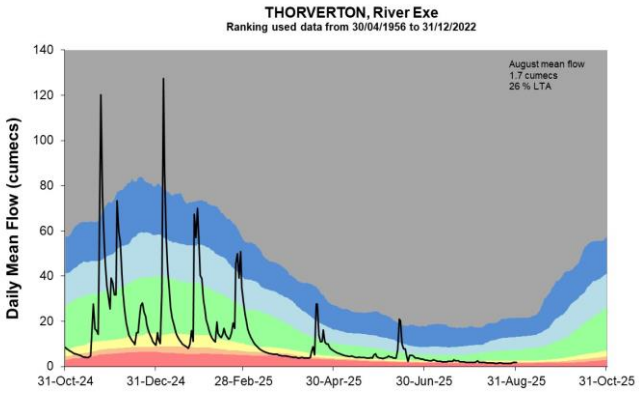


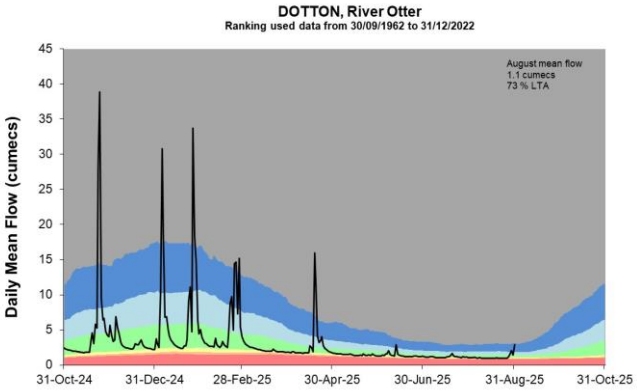


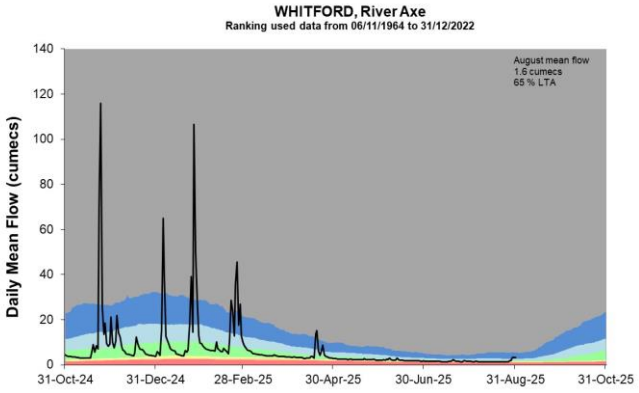










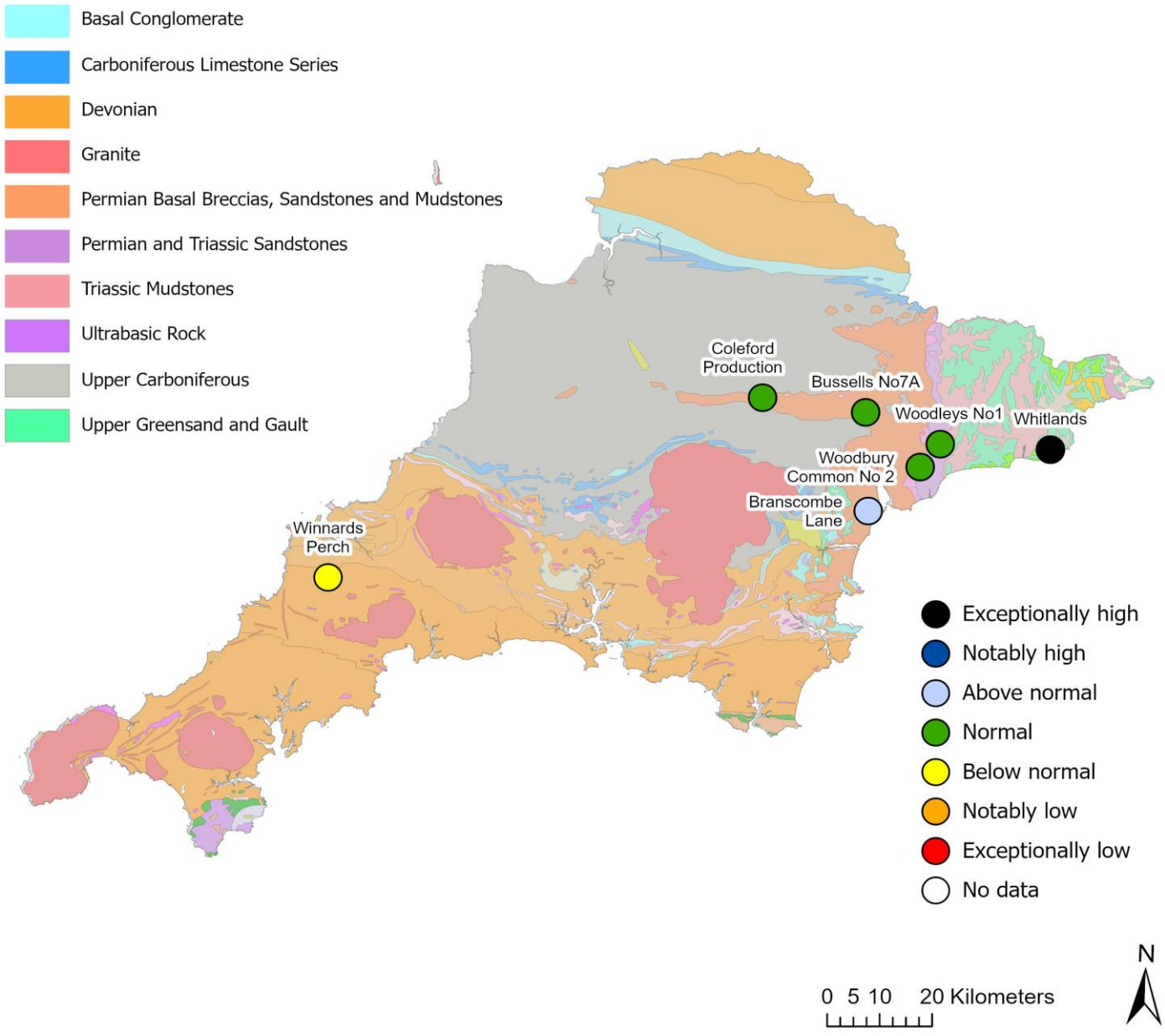


Source: Environment Agency.

5 Groundwater levels

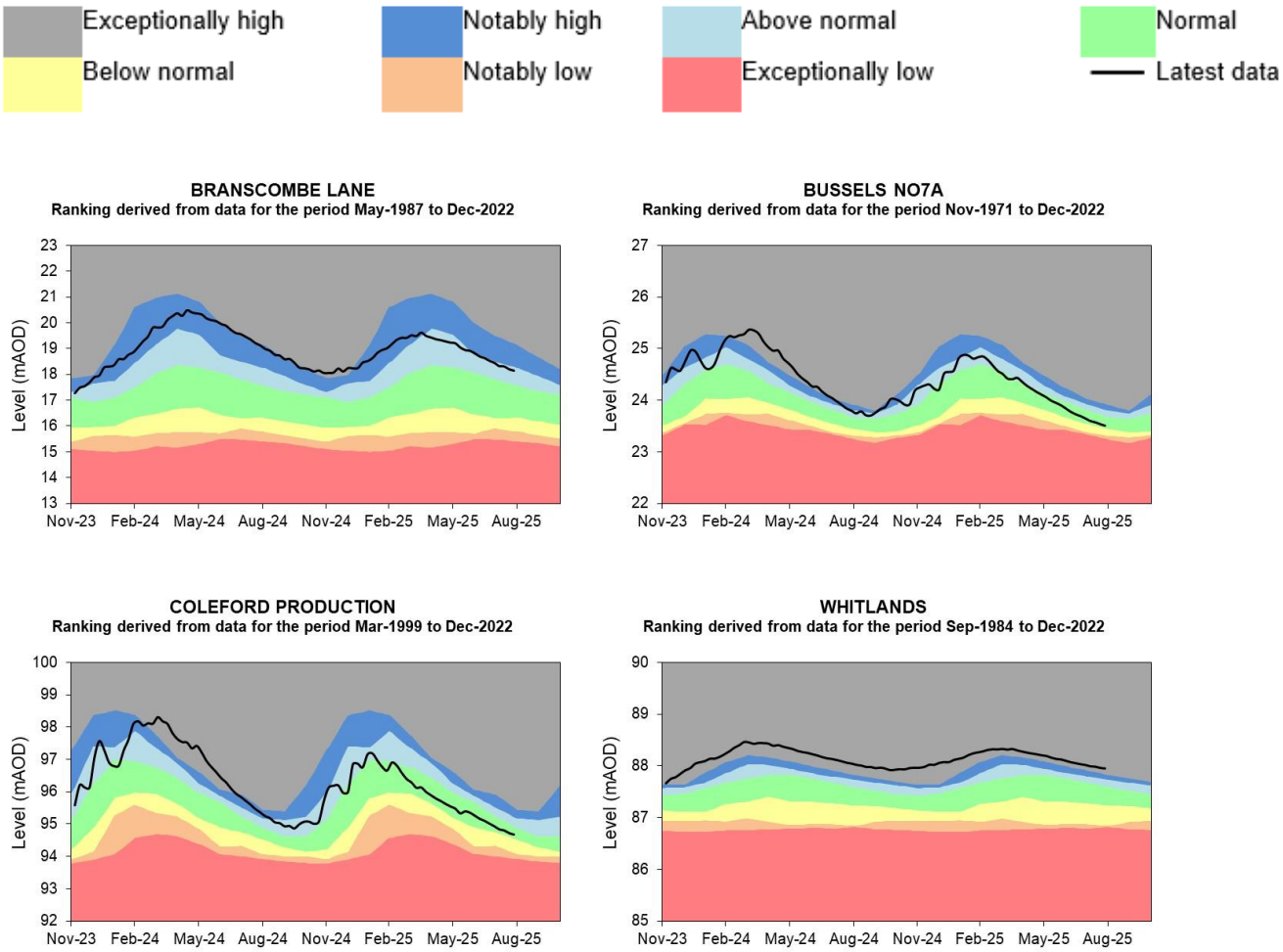
5.1 Groundwater levels map

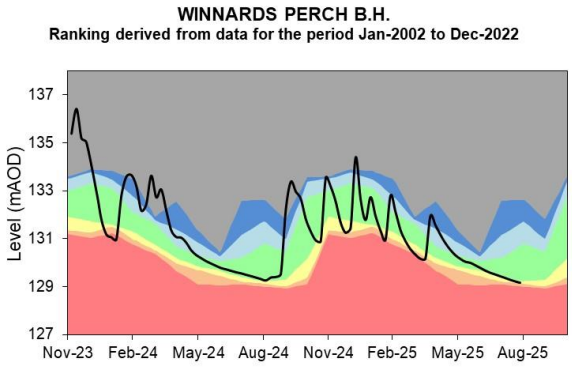
Figure 5.1: Groundwater levels for indicator sites at the end of August 2025, classed relative to an analysis of respective historic August levels. Table available in the appendices with detailed information.

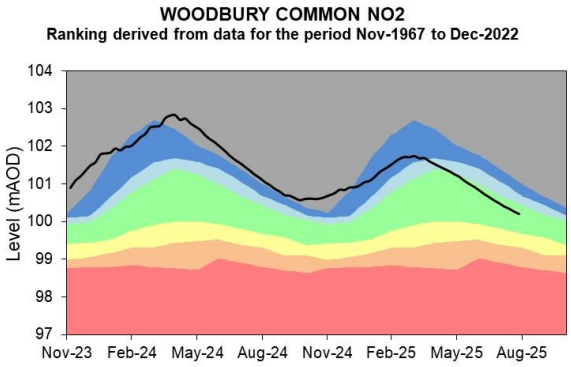


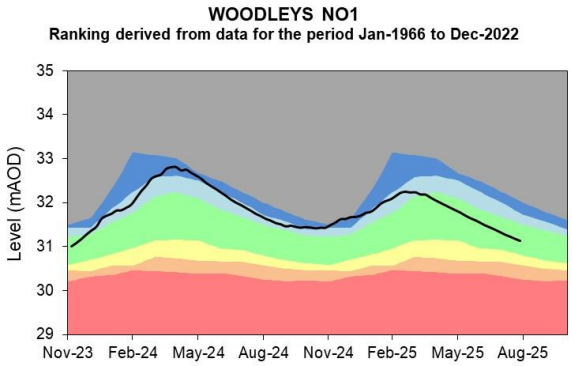
5.2 Groundwater level charts

Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.





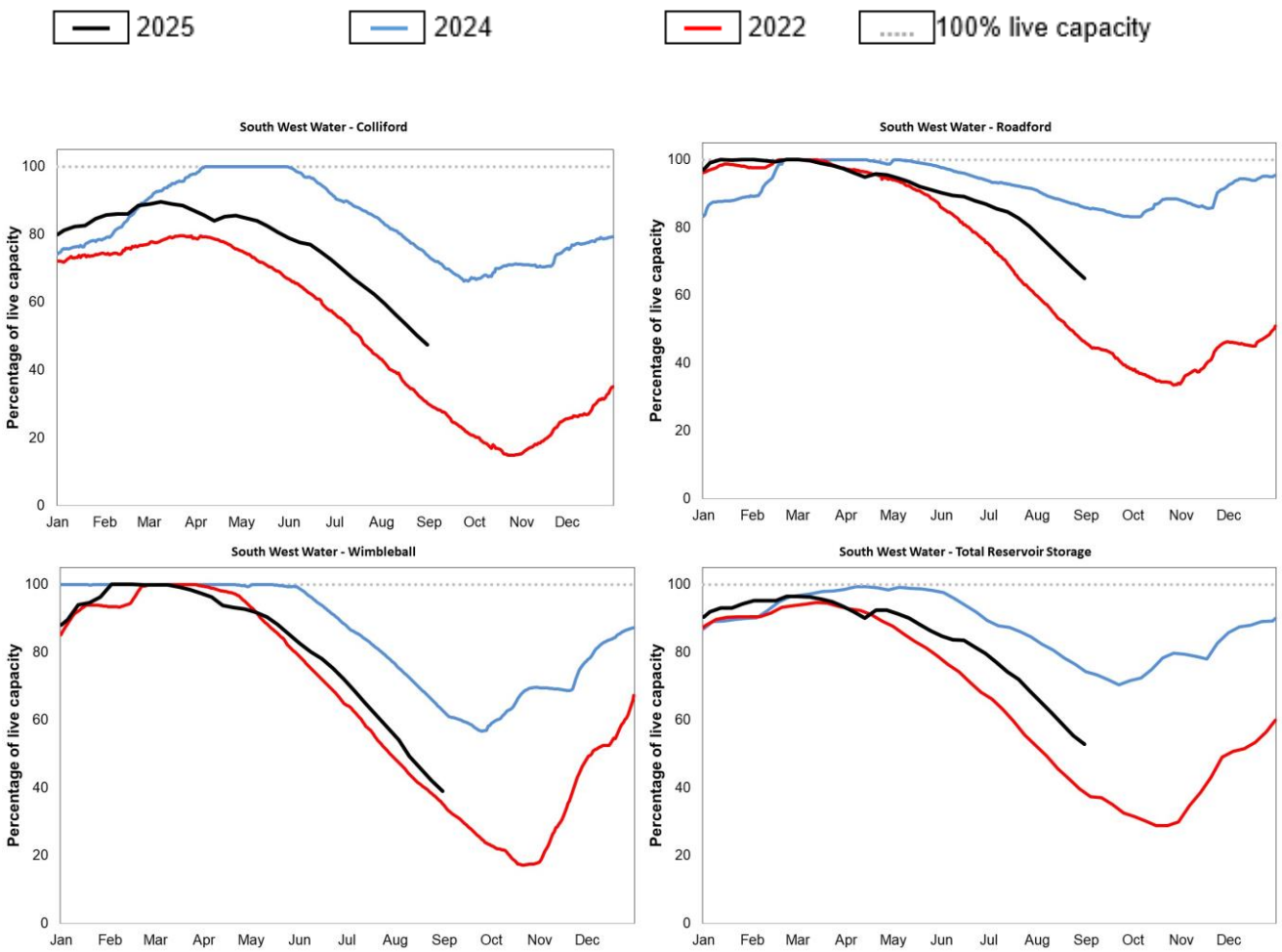




Source: Environment Agency, 2025.

6 Reservoir stocks

Figure 6.1: End of month reservoir storage compared to previous year and a historic drought year. Note: Historic records of individual reservoirs vary in length.



(Source: South West Water).

7 Glossary

7.1 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).

7.2 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.

8 Appendices

8.1 Rainfall table

Hydrological area	Aug 2025 rainfall % of long term average 1991 to 2020	Aug 2025 band	Jun 2025 to August cumulative band	Mar 2025 to August cumulative band	Sep 2024 to August cumulative band
Avon Dart And Erme	92	Normal	Normal	Below normal	Normal
Exe	54	Below Normal	Below normal	Notably low	Normal
Fal And St Austell	77	Normal	Normal	Normal	Normal
North Cornwall	70	Normal	Normal	Normal	Normal
Otter Sid Axe And Lim	70	Normal	Below normal	Notably low	Normal
Seaton Looe And Fowey	73	Normal	Normal	Below normal	Normal
Tamar	74	Normal	Normal	Below normal	Normal
Taw And North Devon Streams	51	Below Normal	Normal	Notably low	Normal
Teign And Torbay	75	Normal	Normal	Below normal	Normal

Torridge And Hartland Streams	62	Below Normal	Normal	Below normal	Normal
West Cornwall	69	Normal	Normal	Normal	Normal

8.2 River flows table

Site name	River	Catchment	Aug 2025 band	Jul 2025 band
Austins Bridge	Dart	Dart	Below normal	Normal
Bellever	East Dart	Dart	Below normal	Below normal
Bodmin Dunmere	Camel	Camel	Below normal	Normal
Chudleigh Bridge	Teign	Teign Upper	Below normal	Normal
Dotton	Otter	Otter	Below normal	Below normal
Gunnislake	Tamar	Tamar Lower	Below normal	Below normal
Gwills	Gannel	Gannel	Below normal	Normal
Restormel	Fowey	Fowey	Below normal	Normal
St Erth	Hayle	Hayle	No data	No data
Thorverton	Exe	Exe Lower	Notably low	Below normal
Torrington	Torridge	Torridge Middle	Notably low	Below normal
Truro	Kenwyn	Tresillian Trevella Kenwyn	Normal	Normal
Umberleigh	Taw	Taw Middle	Notably low	Below normal
Whitford	Axe	Axe Devon Middle	Normal	Normal

8.3 Groundwater table

Site name	Aquifer	End of Aug 2025 band	End of Jul 2025 band
Branscombe Lane	Dawlish Sandstone	Above normal	Above normal
Bussels No7a	Dawlish Sandstone	Normal	Normal
Coleford Production	Permian Breccias And Sandstones	Normal	Normal
Whitlands	Upper Greensand	Exceptionally high	Exceptionally high
Winnards Perch B.h.	Staddon Formation	Below normal	Normal
Woodbury Common No2	Budleigh Salterton Pebble Beds	Normal	Normal
Woodleys No1	Otterton Sandstone Formation	Normal	Normal