Monthly water situation report: Devon and Cornwall Area

1 Summary - September 2025

Devon and Cornwall received 166% of the September long term average (LTA) rainfall, which was above normal for the time of year. Soil moisture deficit (SMD) decreased significantly during the first half of September, before increasing slightly towards the end of the month. Monthly mean river flows were normal to above normal for the time of year across the area. Groundwater levels ended the month between normal and exceptionally high for the time of year. Total reservoir storage across Devon and Cornwall ended the month at 51%, with Wimbleball, Colliford and Roadford at 32%, 44% and 59% respectively at the end of September.

1.1 Rainfall

Devon and Cornwall received 146mm of rain during September (166% of the September LTA), which is above normal for the time of year. Between 1 and 20 September, 95% of the month's rain was recorded, with the remainder of the month mostly dry.

In September, rainfall was mostly above normal for the time of year in Devon, except for the Torridge and Hartland Streams which was notably high. In Cornwall, rainfall was notably high, except for the Fal and St Austell and Seaton, Looe and Fowey hydrological areas where cumulative rainfall was above normal for the time of year. Cumulative rainfall was normal in the last 3 months across the area. Over the last 6 months, cumulative rainfall was normal in the east and mostly above normal in the west, except the Fal and St Austell hydrological area which was normal. Cumulative rainfall over the last 12 months has been normal across Devon and Cornwall

1.2 Soil moisture deficit

SMD decreased significantly through the first half of September, in response to the rainfall during this period, before increasing again towards the end of the month. Soils ended the month almost level with the LTA for the time of year and higher (drier) than the SMD at the same time in 2024.

The average deficit at the end of September was between 11 and 40mm in most of Devon and Cornwall. Eastern and western areas were drier, with the Exe, North Cornwall, Fal and St

Austell and West Cornwall hydrological areas recording a deficit of between 41 and 70mm. The highest average deficit was in the Otter, Sid, Axe and Lim hydrological area, which was between 71 and 100mm.

SMD was 6 to 25mm drier (higher) than the long term average deficit for September in the Otter, Sid, Axe and Lim hydrological area. In the Exe, North Cornwall, Fal and St Austell and West Cornwall hydrological areas, the SMD was between 5mm wetter (lower) and 5mm drier (higher) than the LTA for September. All other hydrological areas ranged from a 25mm wetter (lower) to 6mm wetter (lower) difference from the LTA for September.

1.3 River flows

September monthly mean river flows were normal at most sites across Devon and Cornwall. The rivers Torridge (Torrington), Dart (Bellever and Austins Bridge), Camel (Bodmin Dunmere) and Kenwyn (Truro) all recorded above normal river flows for the month.

All sites experienced an increase in daily mean river flows during the first two—thirds of September in response to the rainfall, with all sites reaching notably high or exceptionally high flows for the time of year between 03 September and 20 September, except the River Fowey (Restormel) which peaked at above normal flows for the time of year. On 30 September, all reporting sites recorded normal daily mean flows for the time of year.

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

1.4 Groundwater levels

On 30 September, groundwater levels were classed as follows:

- 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) and Winnards Perch (monitoring the Staddon Formation)
- Exceptionally high at Whitlands (monitoring the Upper Greensand).

Groundwater levels at most sites continue to be in recession, except for Winnards Perch, which has increased from below normal to above normal since the previous report. Levels at

this site respond quickly to rainfall due to the low storage of the Secondary Aquifer which it monitors. Its hydrograph may now have started its rising limb.

1.5 Reservoir stocks

Total reservoir storage was 51% at the end of September, which is an overall decrease of 2% since the end of August. This is higher than storage at the same time in 2022 (the most recent drought year), which was 33%. At the end of September, storage at Wimbleball, Colliford and Roadford was 32%, 44% and 59% respectively, compared to 24%, 21% and 39% at the same time in 2022.

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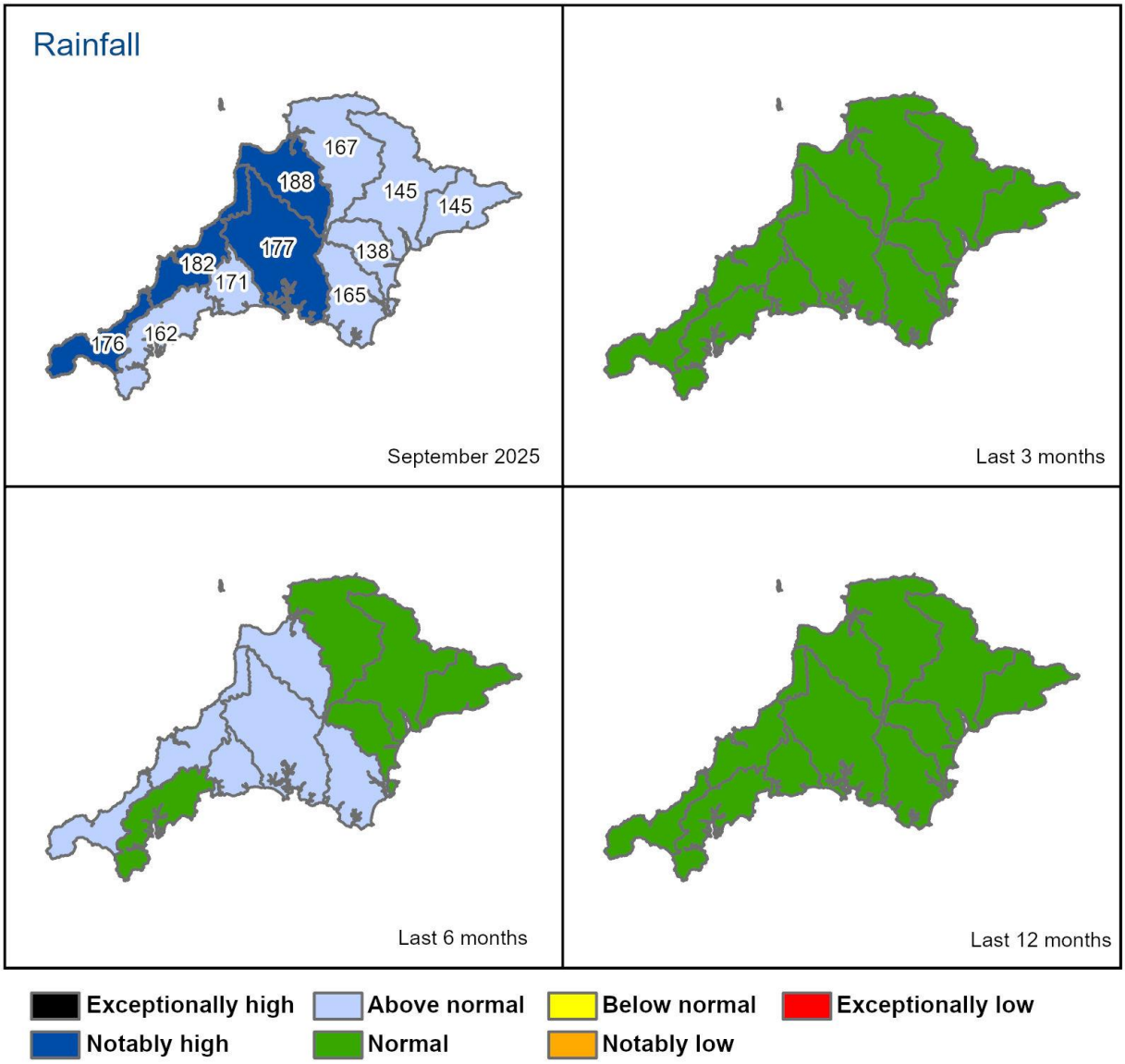
2 Rainfall

2.1 Rainfall map

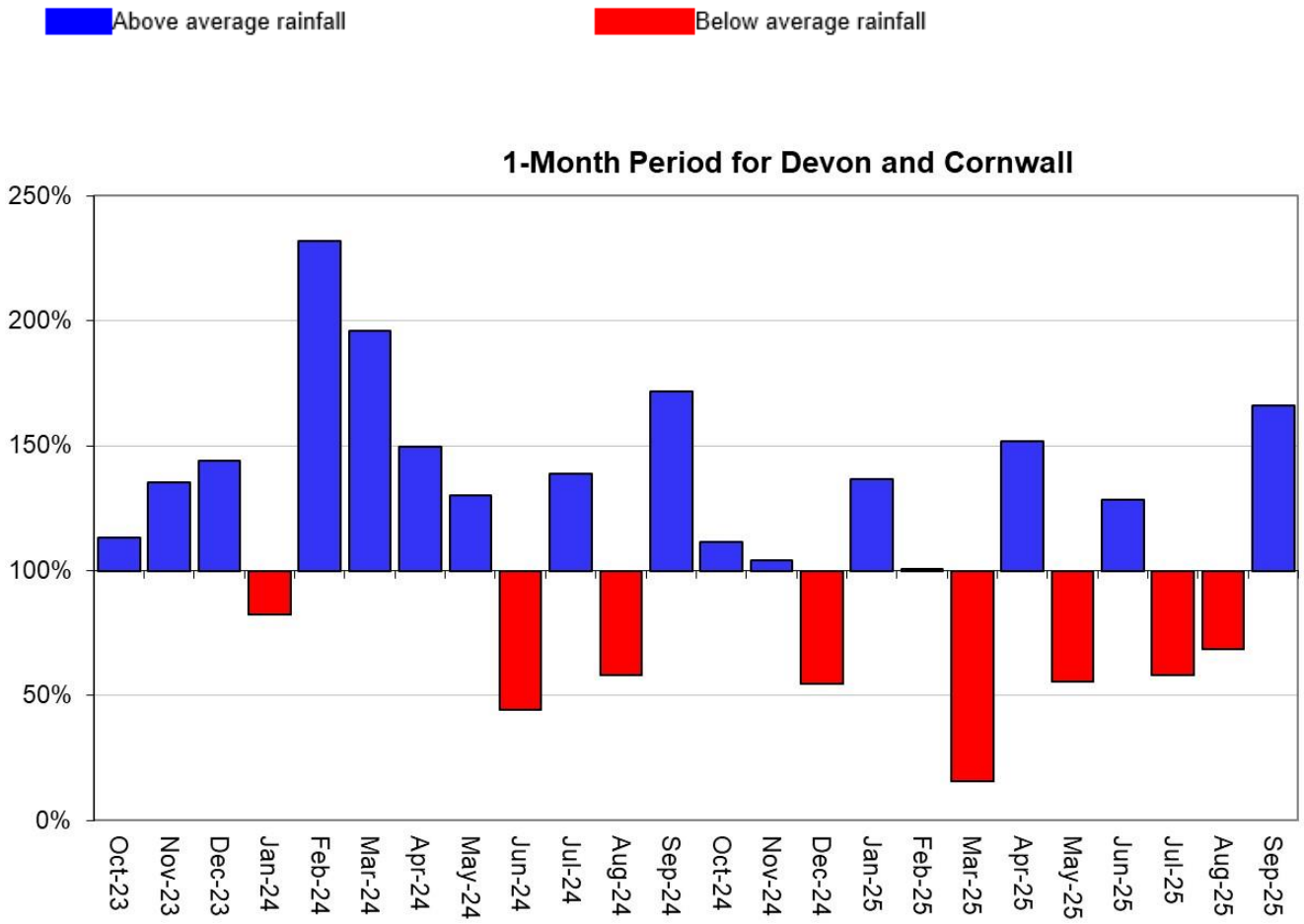
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 30 September 2025), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



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, AC0000807064, 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.

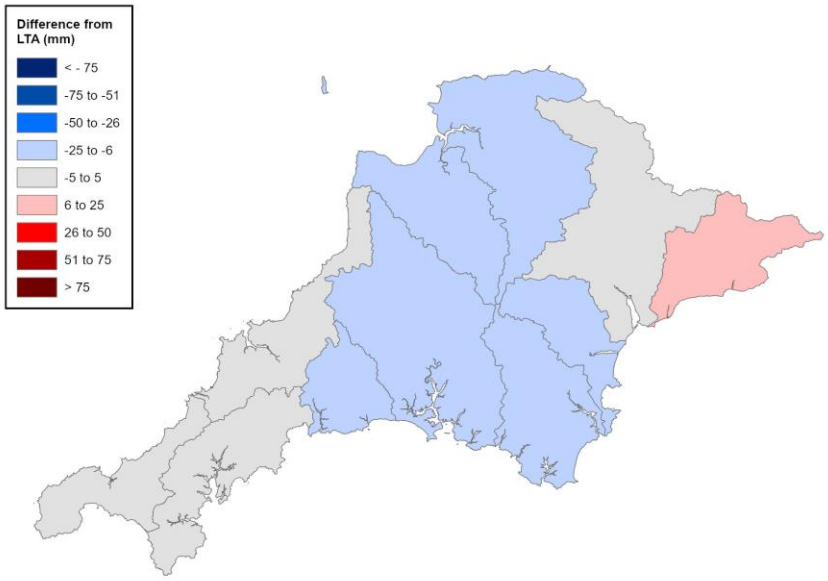


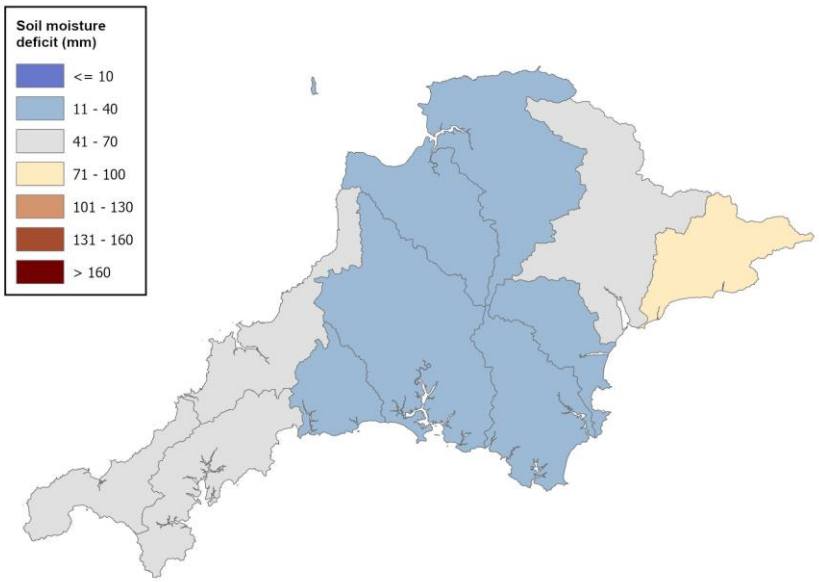
Rainfall data for 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2025). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

3 Soil moisture deficit

3.1 Soil moisture deficit map

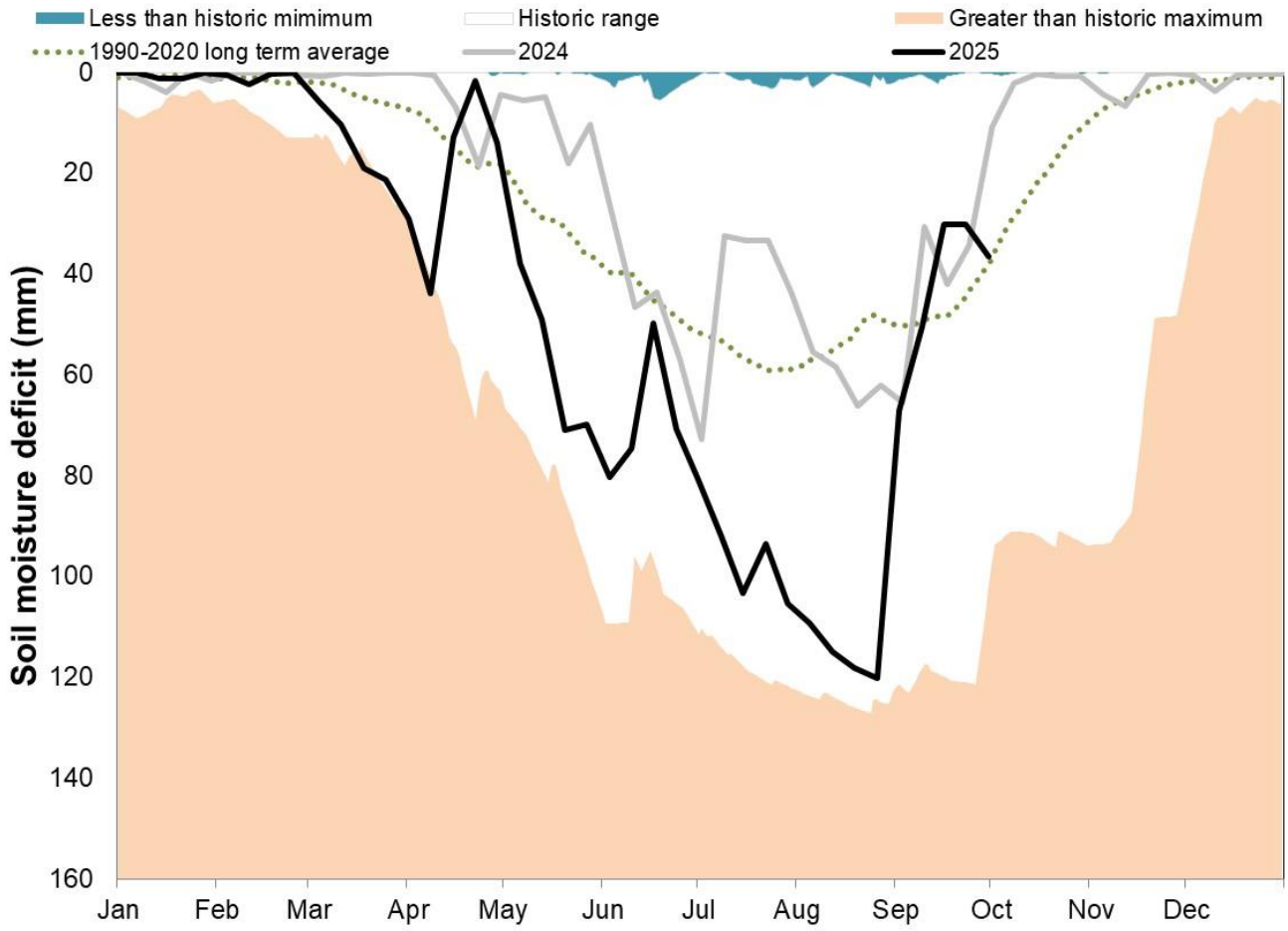
Figure 3.1: Top map shows soil moisture deficit for week ending 30 September 2025. Bottom map shows the difference (mm) between the actual soil moisture deficit and the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.





3.2 Soil moisture deficit charts

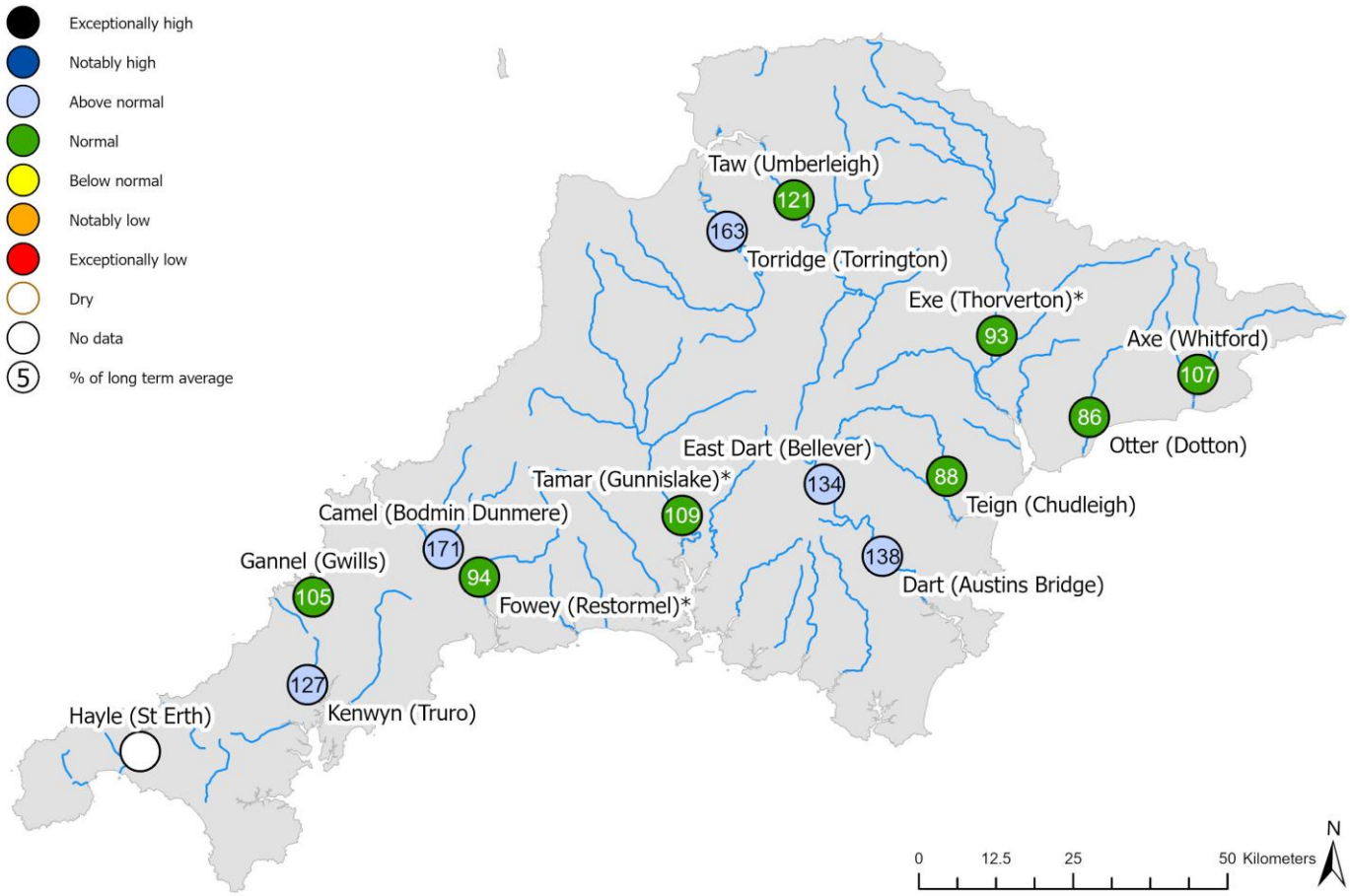
Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1991 to 2020 long term average. Weekly MORECS data for real land use.



4 River flows

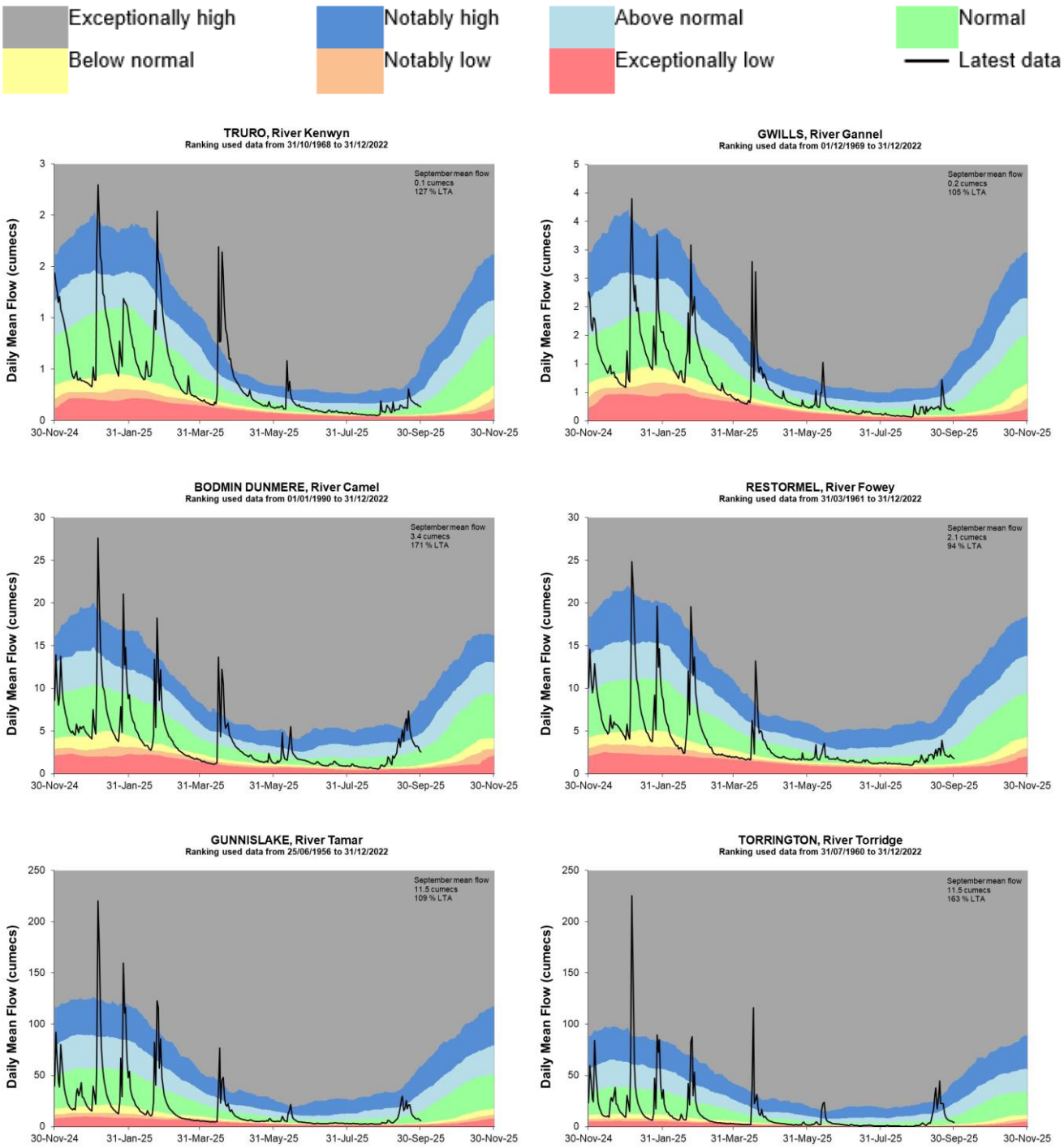
4.1 River flows map

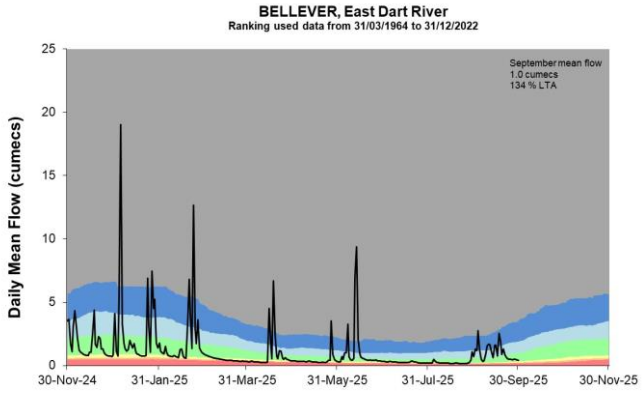
Figure 4.1: Monthly mean river flow for indicator sites for September 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic September monthly means. Table available in the appendices with detailed information.

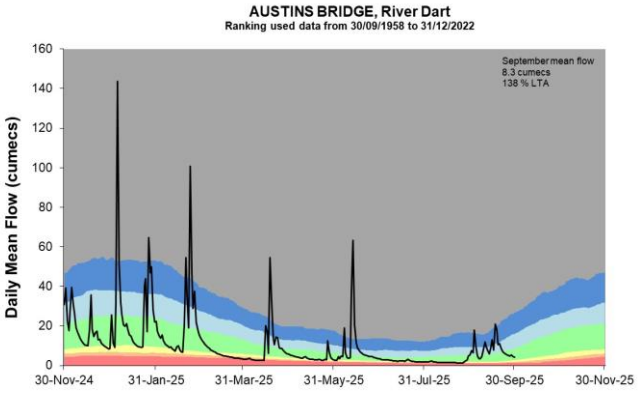


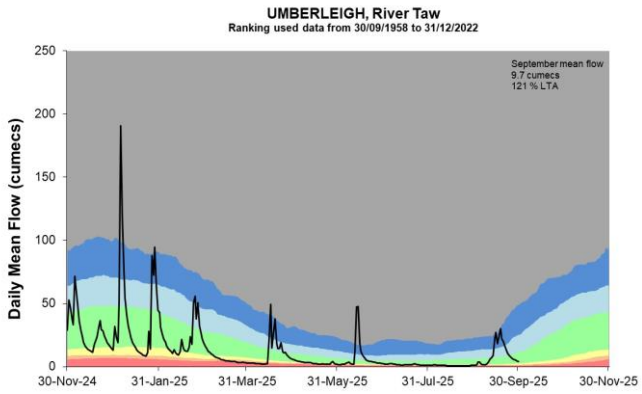
4.2 River flow charts

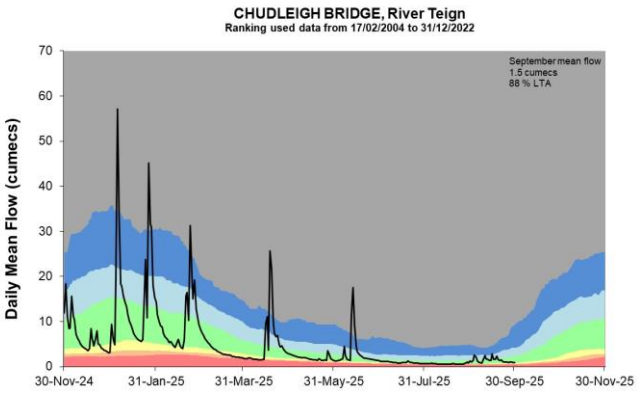
Figure 4.2: Daily mean river flow for indicator sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.

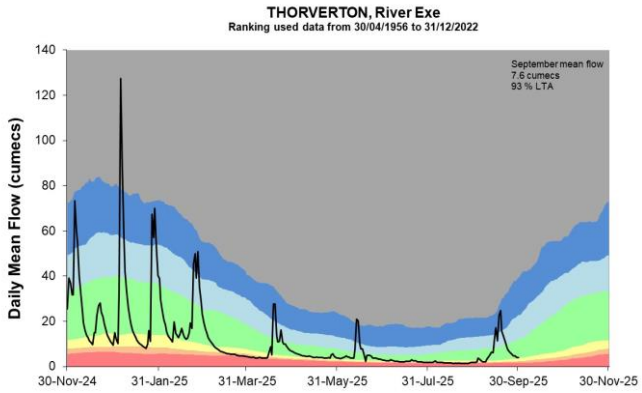


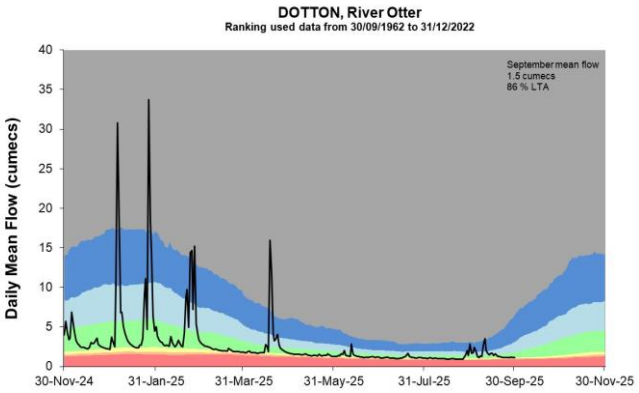


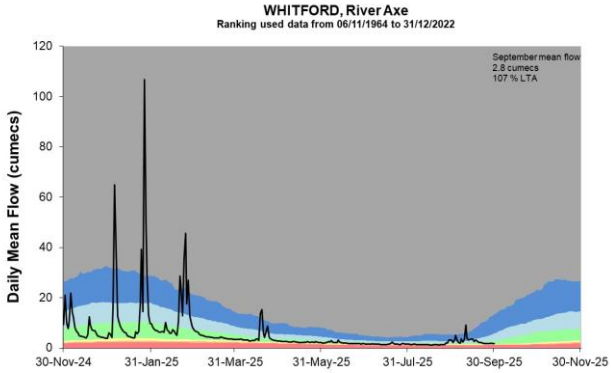










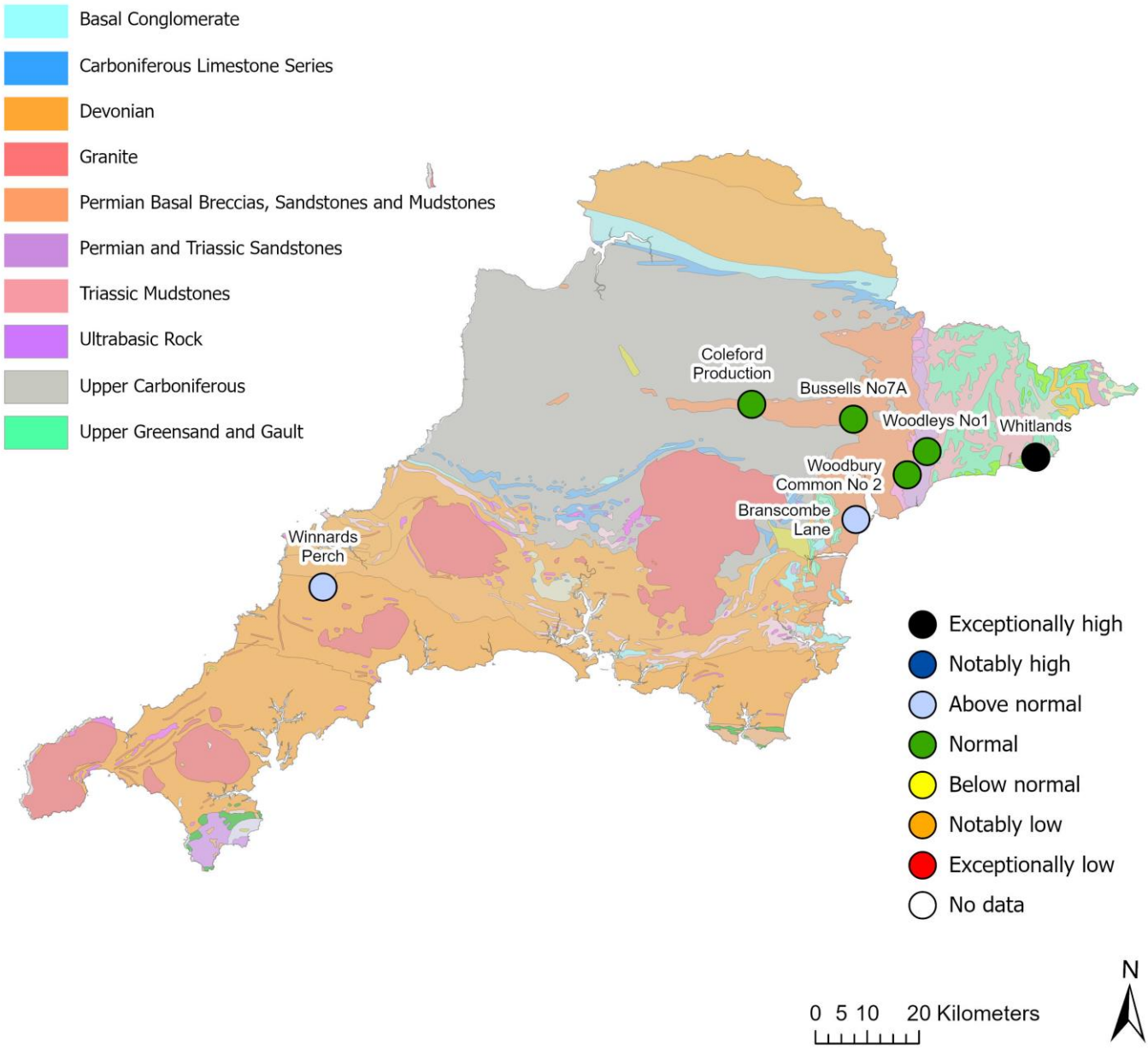


Source: Environment Agency.

5 Groundwater levels

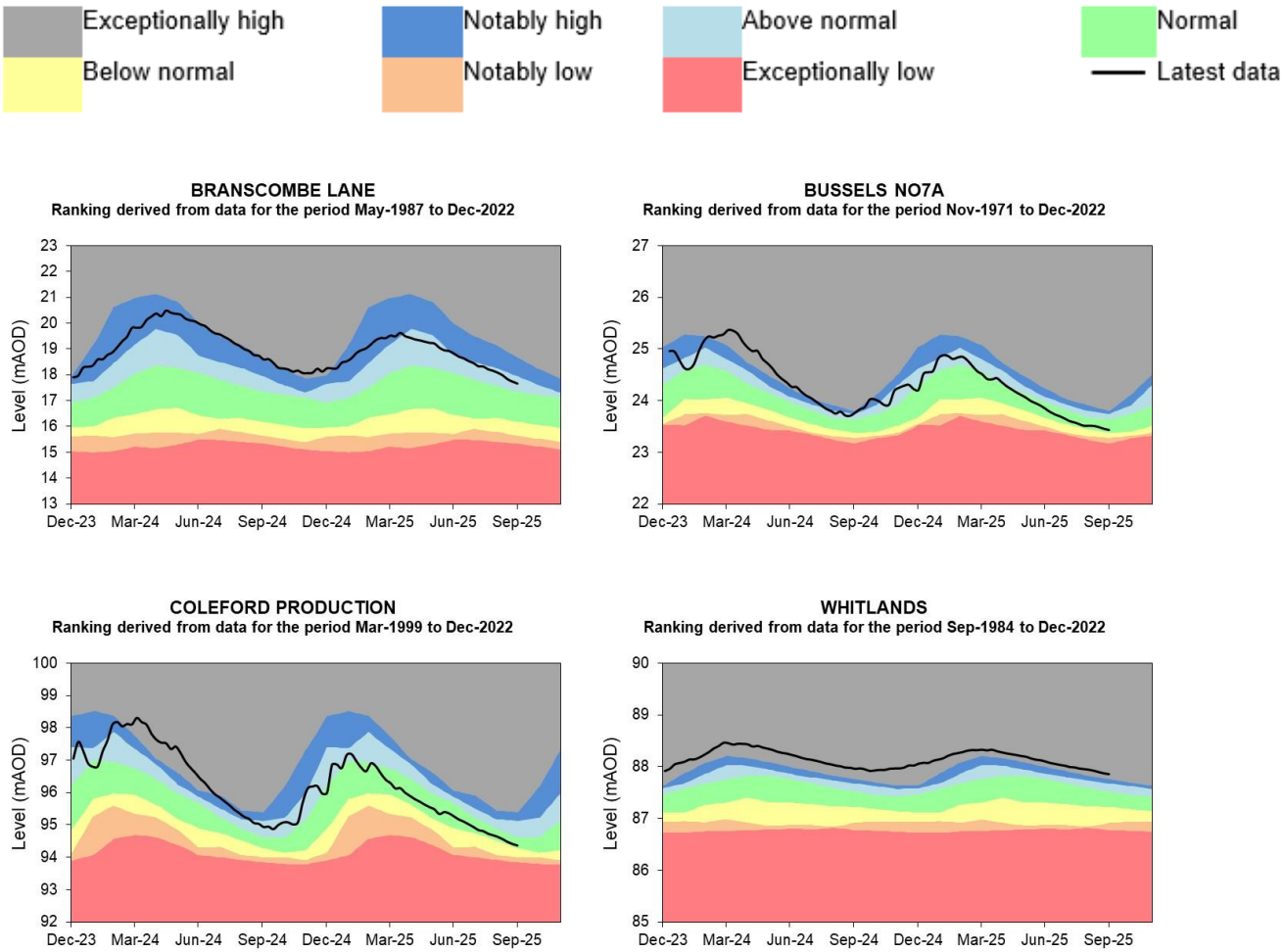
5.1 Groundwater levels map

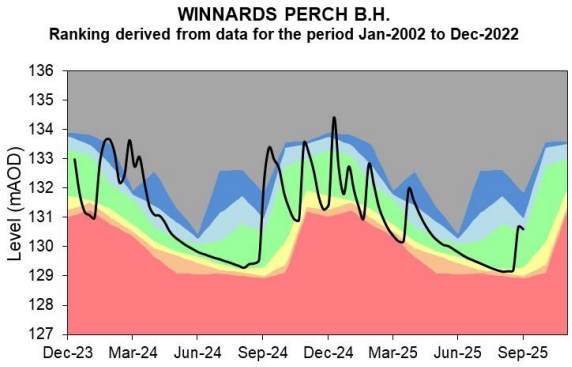
Figure 5.1: Groundwater levels for indicator sites at the end of September 2025, classed relative to an analysis of respective historic September levels. Table available in the appendices with detailed information.

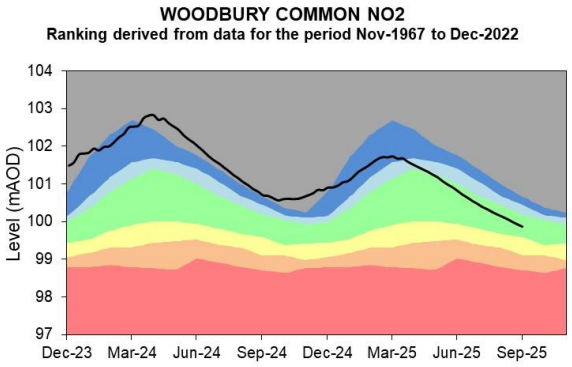


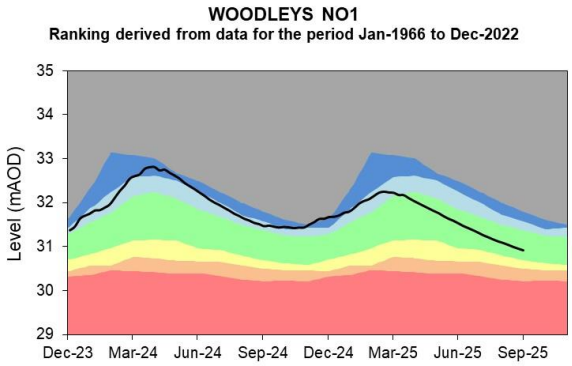
5.2 Groundwater level charts

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.





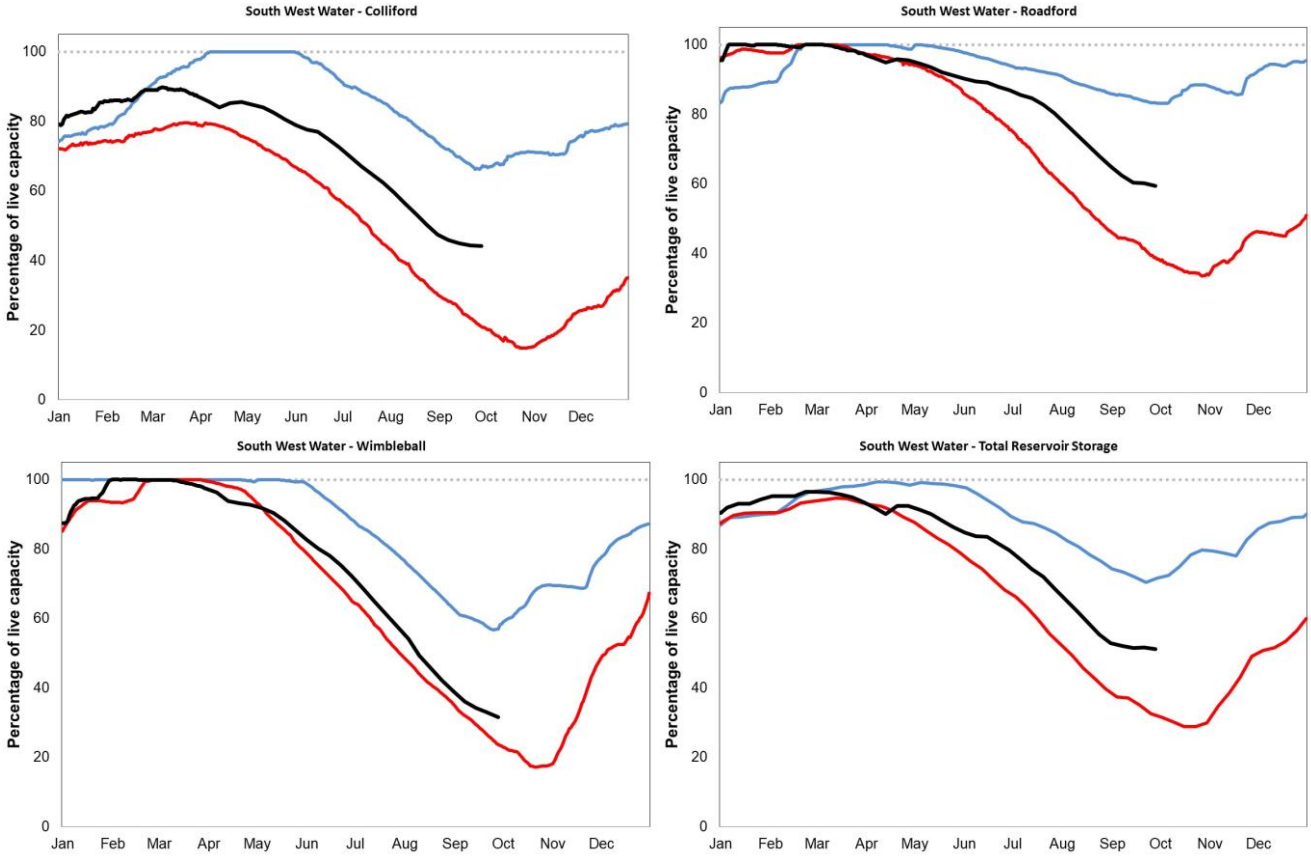




Source: Environment Agency, 2025.

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	September 2025 rainfall % of long term average 1991 to 2020	September 2025 band	July 2025 to September cumulative band	April 2025 to September cumulative band	October 2024 to September cumulative band
Avon Dart And Erme	165	Above Normal	Normal	Above normal	Normal
Exe	145	Above Normal	Normal	Normal	Normal
Fal And St Austell	162	Above Normal	Normal	Normal	Normal
North Cornwall	183	Notably High	Normal	Above normal	Normal
Otter Sid Axe And Lim	145	Above Normal	Normal	Normal	Normal
Seaton Looe And Fowey	171	Above Normal	Normal	Above normal	Normal
Tamar	177	Notably High	Normal	Above normal	Normal
Taw And North Devon Streams	167	Above Normal	Normal	Normal	Normal
Teign And Torbay	138	Above Normal	Normal	Normal	Normal

Hydrological area	September 2025 rainfall % of long term average 1991 to 2020	September 2025 band	July 2025 to September cumulative band	April 2025 to September cumulative band	October 2024 to September cumulative band
Torridge And Hartland Streams	188	Notably High	Normal	Above normal	Normal
West Cornwall	176	Notably High	Normal	Above normal	Normal

8.2 River flows table

Site name	River	Catchment	September 2025 band	August 2025 band
Austins Bridge	Dart	Dart	Above normal	Below normal
Bellever	East Dart	Dart	Above normal	Below normal
Bodmin Dunmere	Camel	Camel	Above normal	Below normal
Chudleigh Bridge	Teign	Teign Upper	Normal	Below normal
Dotton	Otter	Otter	Normal	Below normal
Gunnislake	Tamar	Tamar Lower	Normal	Below normal
Gwills	Gannel	Gannel	Normal	Below normal
Restormel	Fowey	Fowey	Normal	Below normal
St Erth	Hayle	Hayle	Normal	Normal
Thorverton	Exe	Exe Lower	Normal	Notably low
Torrington	Torridge	Torridge Middle	Above normal	Notably low
Truro	Kenwyn	Tresillian Trevella Kenwyn	Above normal	Normal
Umberleigh	Taw	Taw Middle	Normal	Notably low
Whitford	Axe	Axe Devon Middle	Normal	Normal

8.3 Groundwater table

Site name	Aquifer	End of September 2025 band	End of August 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	Above normal	Below normal
Woodbury Common No2	Budleigh Salterton Pebble Beds	Normal	Normal
Woodleys No1	Otterton Sandstone Formation	Normal	Normal

8.4 Rainfall Catchments

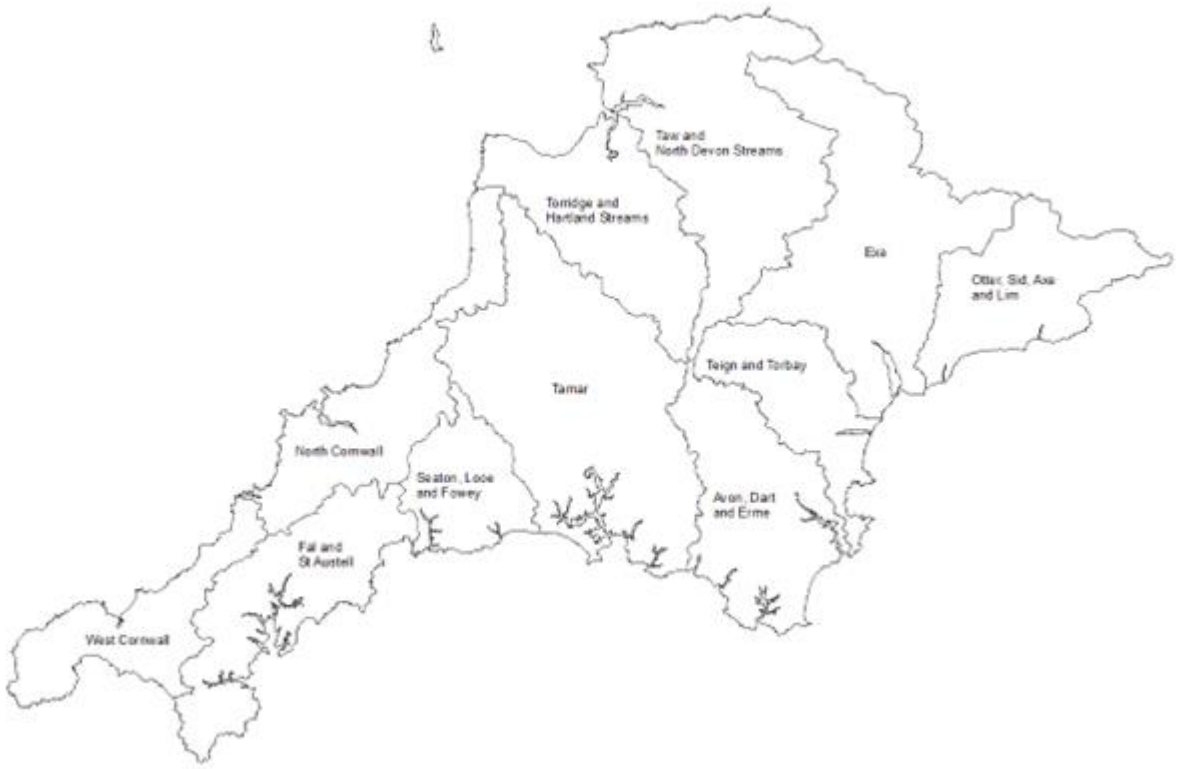


Figure 6.1: Rainfall catchments in Devon and Cornwall. Crown copyright. All rights reserved. Environment Agency, 100026380, 2025.