

Soil moisture on 31 May 2026 (see back page for explanatory comments).

Early May saw rain and windy conditions across the UK, before a period of higher pressure brought a record-breaking heatwave toward the end of the month. While many sites began to recover soil moisture early in the month, the majority dried further during the heatwave.

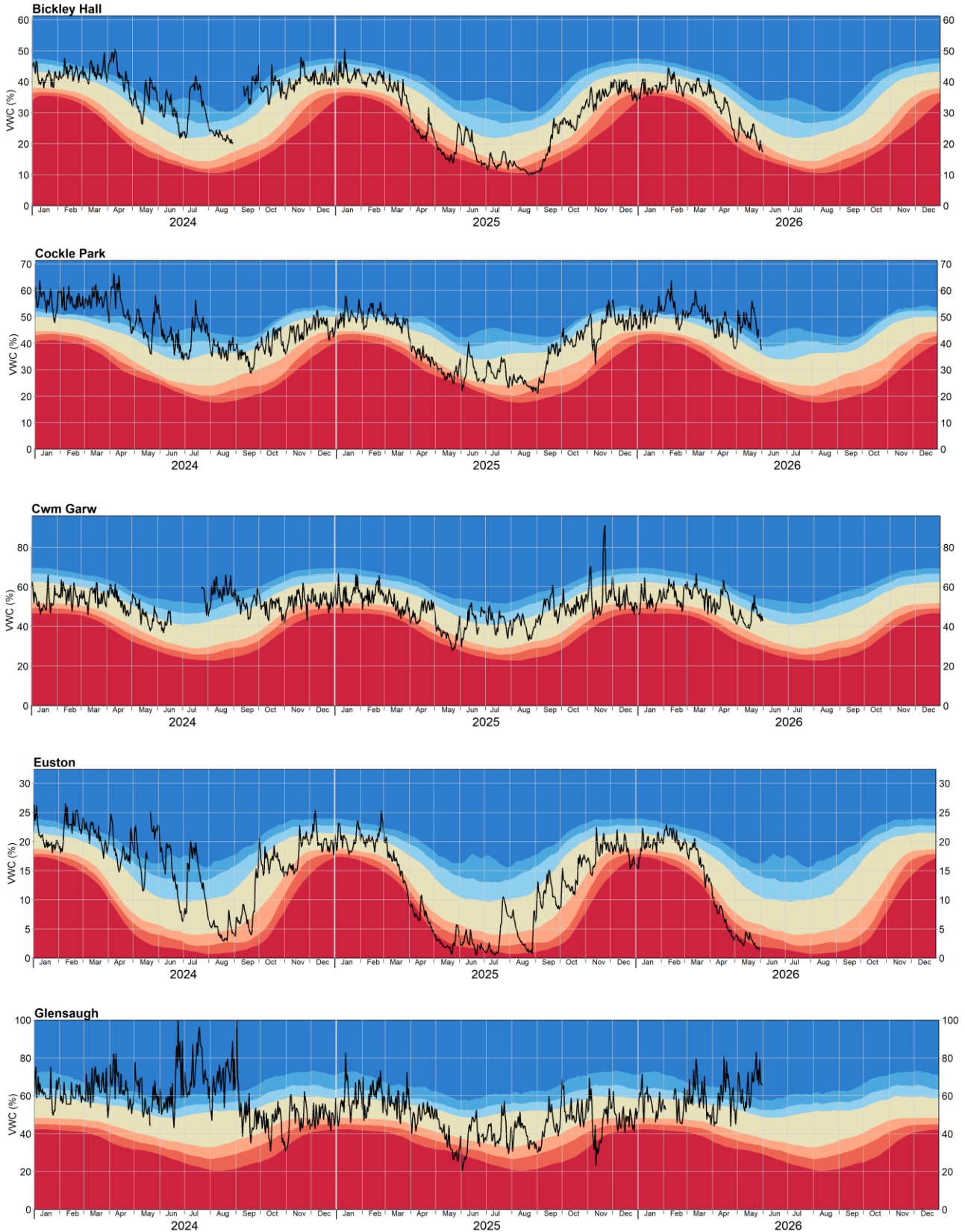
Despite the changeable weather and precipitation early in the month, the heatwave later in the month brought drier weather and high temperatures, making this May the joint 3rd warmest on record. A record-highest May temperature ever in the UK of 35.1°C was recorded on the 26th. The higher temperatures and limited rainfall in the second half of the month saw the UK receive just 78% of its average rainfall. Northern Ireland and the North-East of England were the only regions to record above-average precipitation. The South-East of England was once again the driest part of the country, seeing just 49% of the average precipitation.

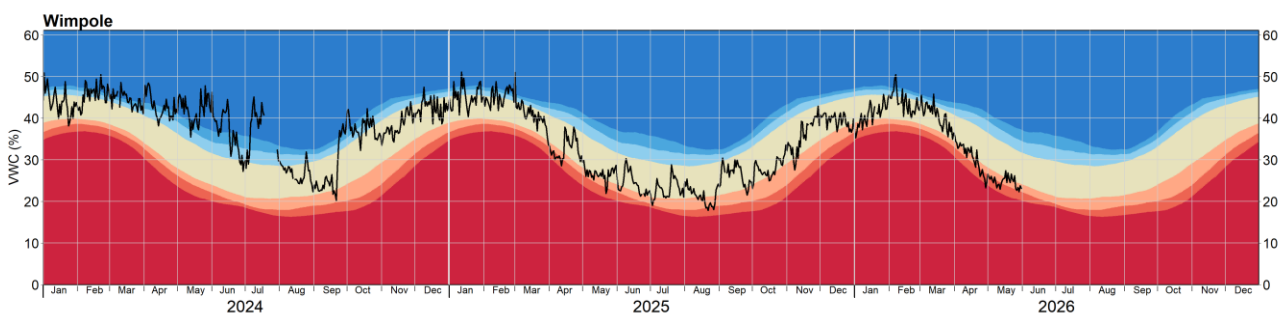
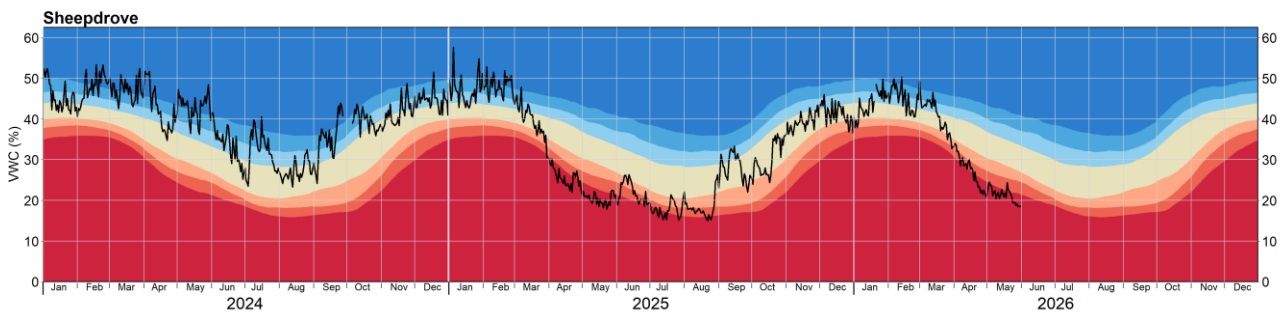
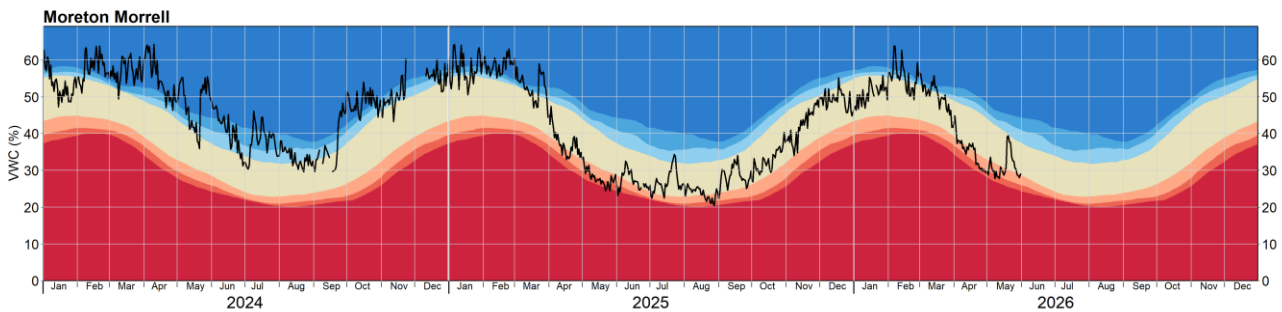
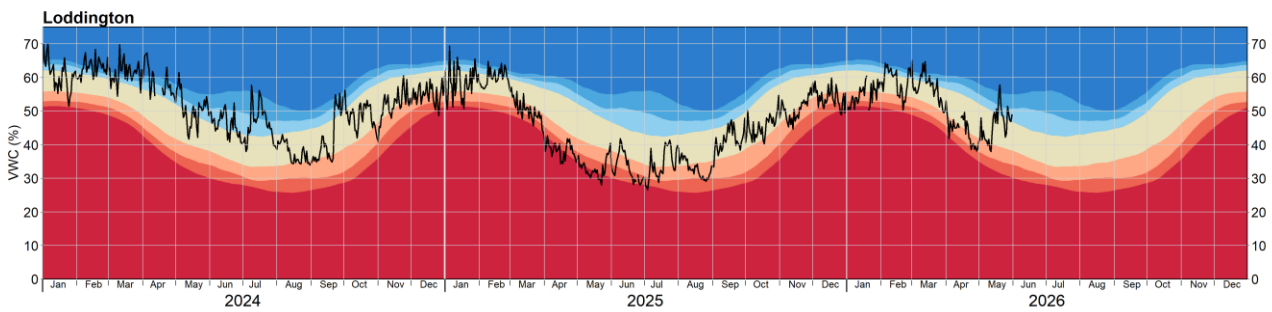
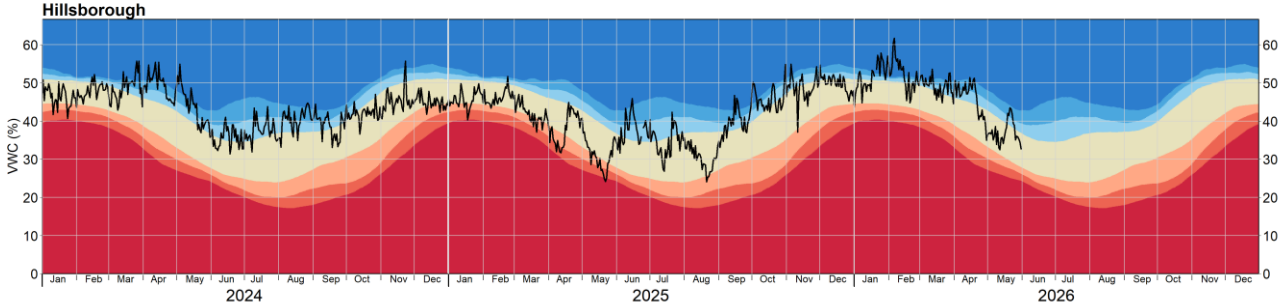
Significant precipitation at the beginning of the month was not enough to reverse the drying trend, with low precipitation in the second half of May pushing most sites into the “dry” category of soil wetness. Wimpole recorded its driest May on record at 24.9% water content, and Euston became the first site this year to be categorised as “extremely dry”. On the other hand, Loddington, Glensough, and Cwm Garw were the only sites to become significantly wetter.

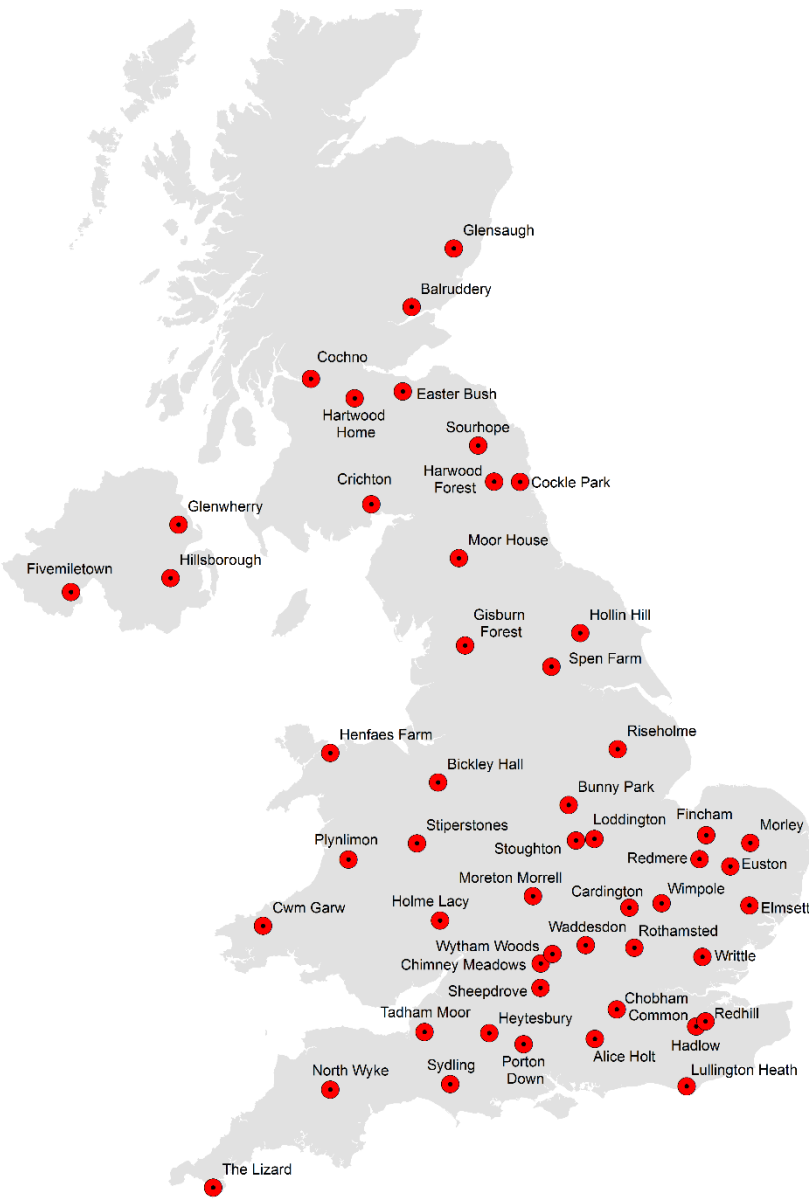
The record-breaking early heatwave and below-average precipitation this month prevented any recovery of soil moisture across much of the network, and as such, the drying trend has continued.

Network news

The ongoing preventative maintenance season had visits to Sydling, Porton Down, Bickley, Stiperstones, Heytesbury, Gisburn, Sourhope, Cockle Park and Moor House. Morley and Euston were also visited for reactive maintenance. Gisburn and Fivemiletown had connection issues this month and therefore have incomplete data sets.







About the maps on page 1: The maps show daily mean soil moisture on the last day of the month. Colours indicate wetness as in the legends.

The map on the left shows wetness as the volumetric water content (VWC) of the soil which is constrained by soil type, i.e. some soils are able to hold more water than others as indicated by the shape of the symbol.

The map on the right presents soil wetness adjusted for site specific characteristics, i.e. taking account of the possible range of soil wetness at each site. Field capacity (FC) is a key point in this range. When soil moisture is below FC soil moisture is said to be in deficit, i.e. there is a (positive) soil moisture deficit (SMD).

Grey shaded areas on these two maps represent principal aquifers.

About the graphs on pages 2 and 3: The black line shows VWC. The coloured bands indicate how VWC compares to historical variability for the site and time of year.

- exceptionally dry
- notably dry
- drier than normal
- normal
- wetter than normal
- notably wet
- exceptionally wet

About soil moisture: Soil moisture varies in the short term (hours to days) with rainfall and as water drains through the soil. Longer term variation is driven by the seasonal difference between rainfall and evaporation. Thus soil moisture decreases in the summer when evaporation exceeds rainfall but increases when this is reversed. In most winters under UK conditions, soil moisture reaches a relatively constant value, known as the field capacity. Field capacity is a measure of how much water the soil can hold against gravity and is strongly dependent on the soil type. Soils are expected to be around field capacity after being wetted to above field capacity and the excess water (e.g. from macropores) has drained away under gravity, which can take several days after heavy rain, to reach a near steady state. Differences in soil type and weather patterns cause variations in soil moisture between sites including when the soil returns to field capacity in autumn/winter and when soil moisture decreases in the spring/summer.

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