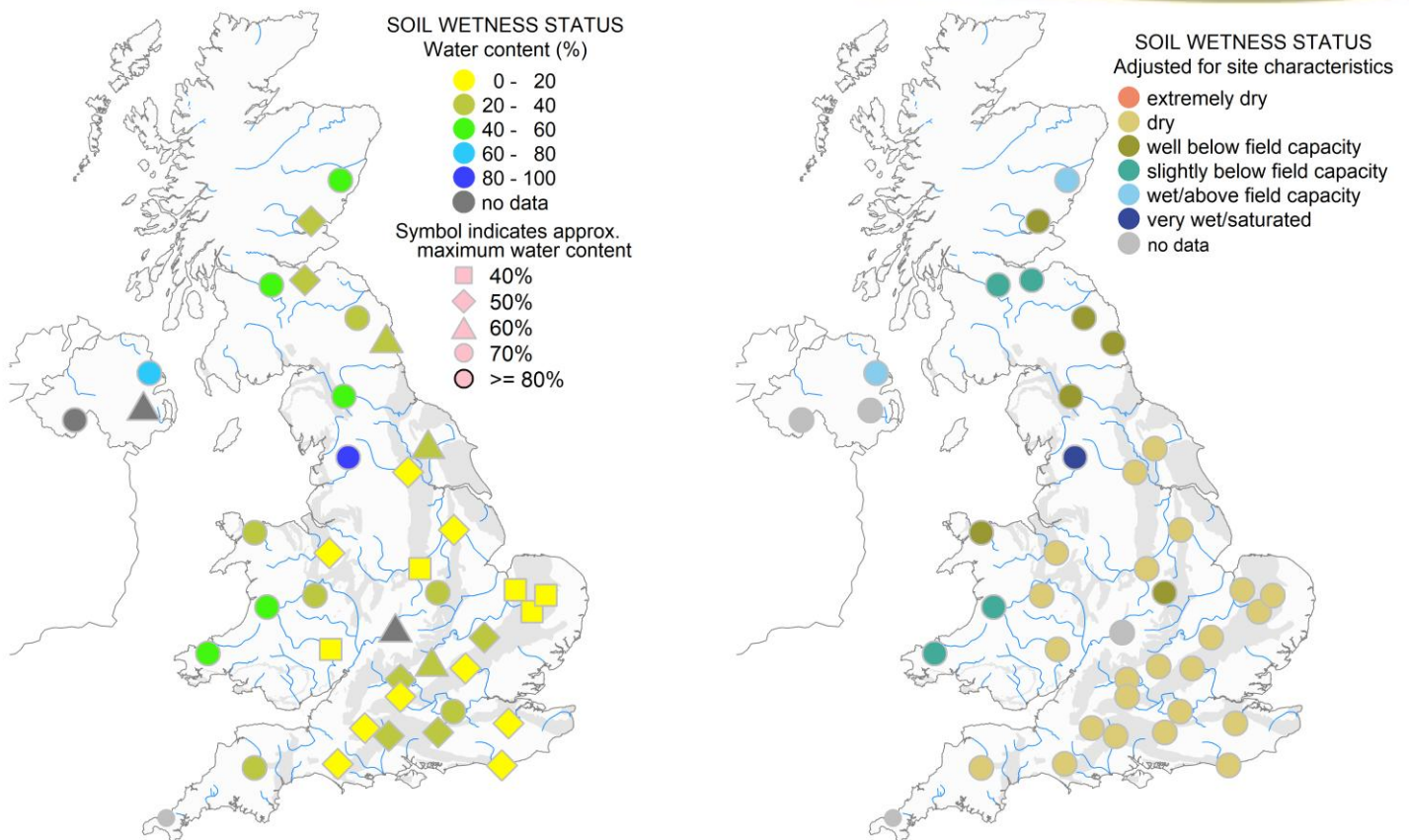




Soil moisture on 30 June 2026 (see back page for explanatory comments).

June followed a similar pattern to May, with heavy precipitation and unsettled weather in the early part of the month, allowing many sites to recover soil moisture. However, another record-breaking heatwave toward the end of the month resulted in sites reverting to end-of-May soil moisture levels, or drier.

This first half of this month saw significant precipitation throughout the UK. The second half of the month however saw a divergence between regions, with below average rainfall in North-West, North-East, and Central England, while in Scotland the precipitation was 118% of average, and Northern Ireland 183% of average. The UK overall ended the month with above-average rainfall.

Record-breaking heat across the UK this month saw its second hottest June on record, and England's record hottest, with a record high of 37.7°C measured in Norfolk. These temperatures, alongside lower precipitation in the second half of the month, meant that any soil moisture recovery seen in early June after the May heatwave was reversed, with most sites across the UK ending the month at a similar or lower soil moisture level in comparison to the end of May. Only a few sites were noticeably drier, including Bunny Park, Chobham Common, Fincham, and Holme Lacy. Beyond this, during the record-breaking heatwave, three of our stations recorded their highest-ever temperatures at Cwm Garw, Porton Down, and Heytesbury. Our highest June temperatures were recorded at Euston (36.62°C), Fincham (36.42°C), and Morley (36.25°C).

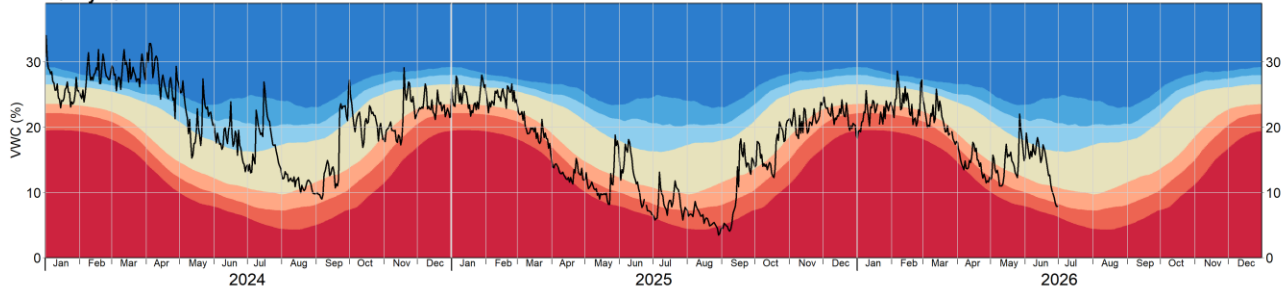
Forecasts for a hot, dry July will likely lead to very dry soil conditions across much of the network, particularly in Central and Southern England.

Network news

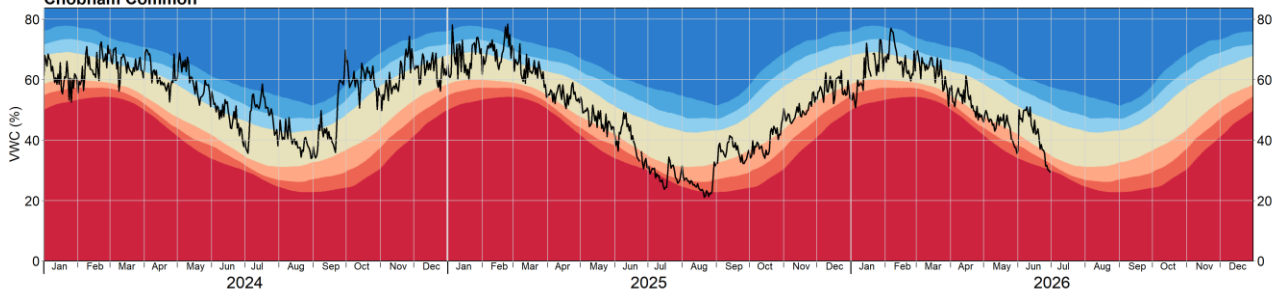
A break in the preventative maintenance season saw only one site visit occurring this month, with the COSMOS team visiting Cwm Garw to repair a broken sensor. Connection issues at Fivemiletown persisted this month, with Hillsborough and Moreton Morell also experiencing connectivity issues.



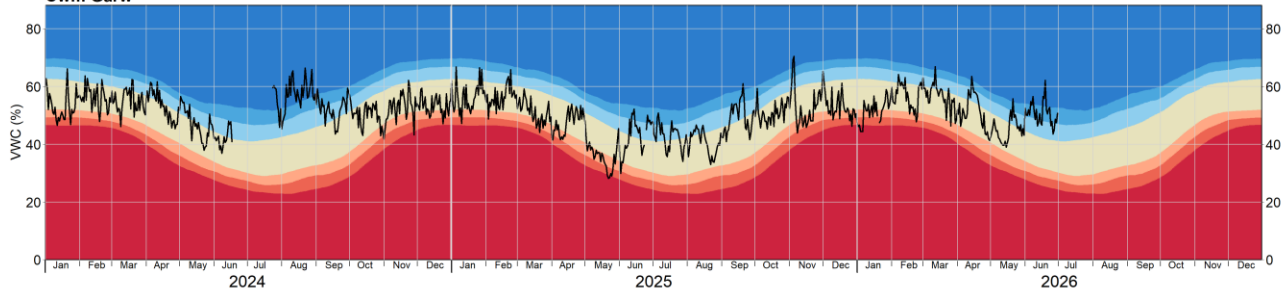
Bunny Park



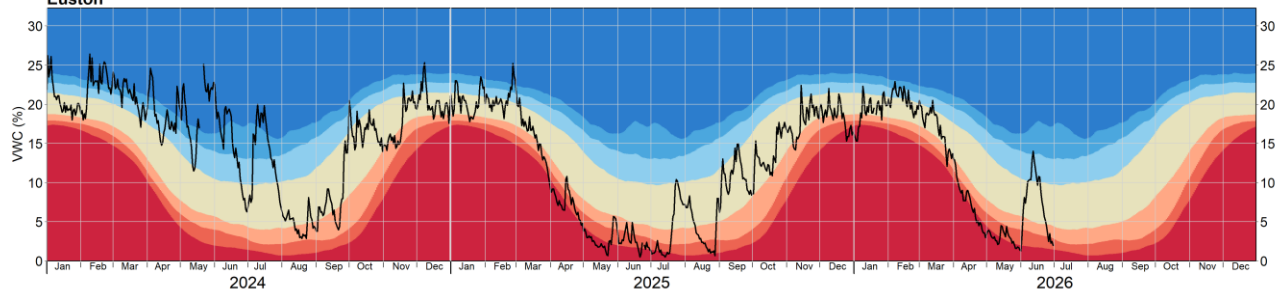
Chobham Common



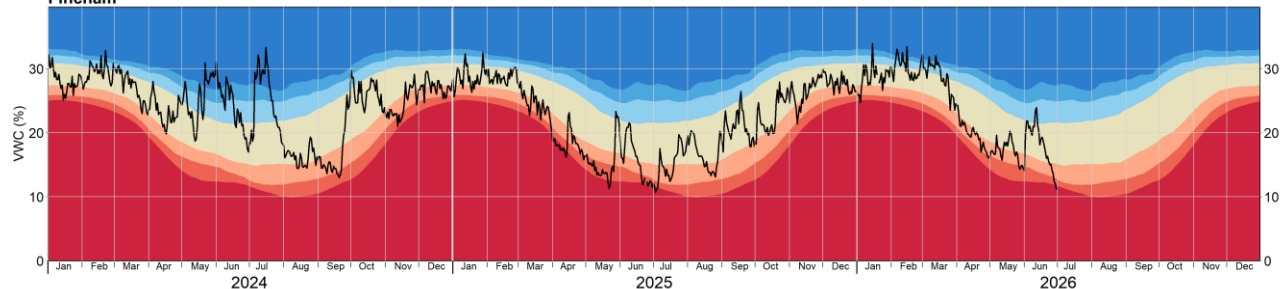
Cwm Garw



Euston

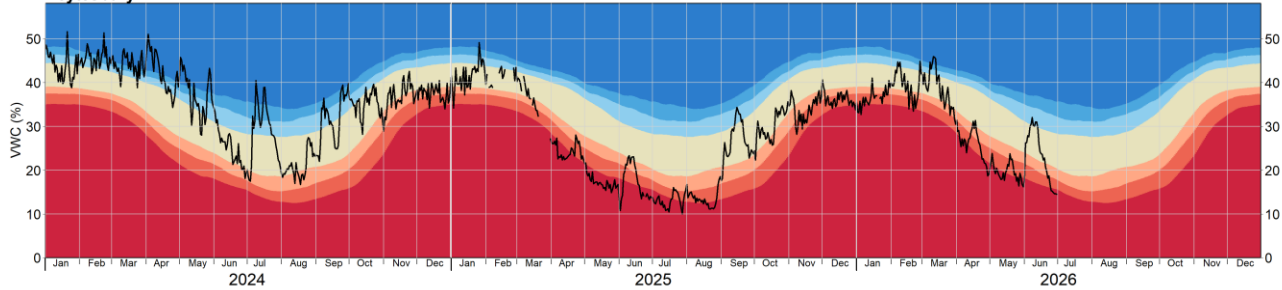


Fincham

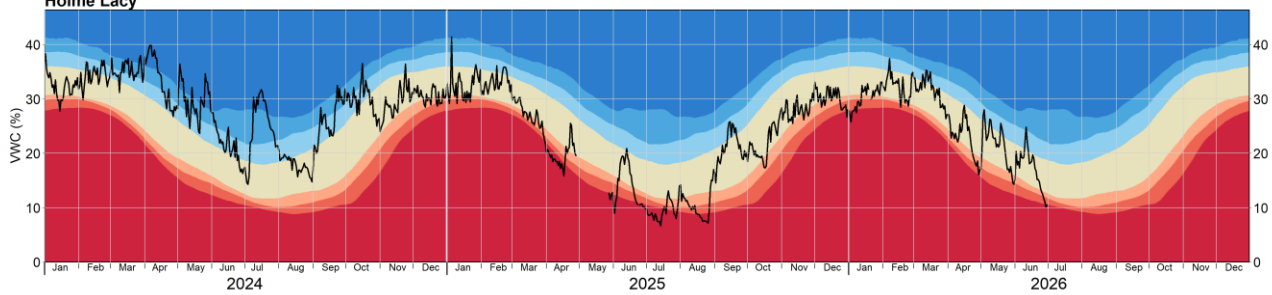




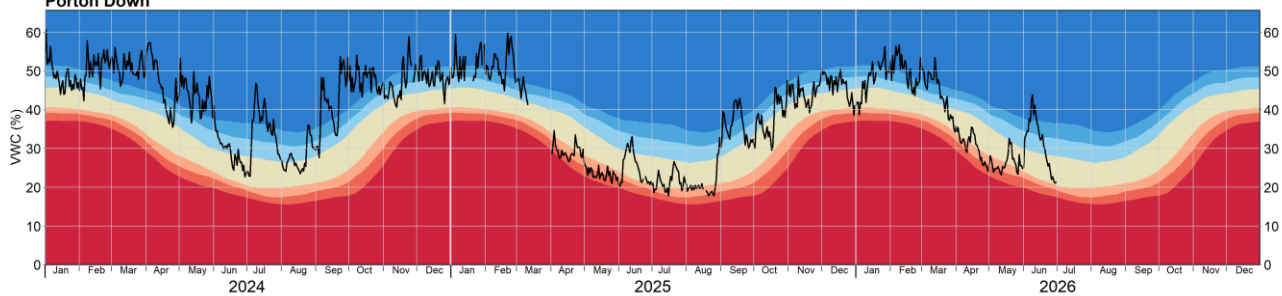
Heytesbury



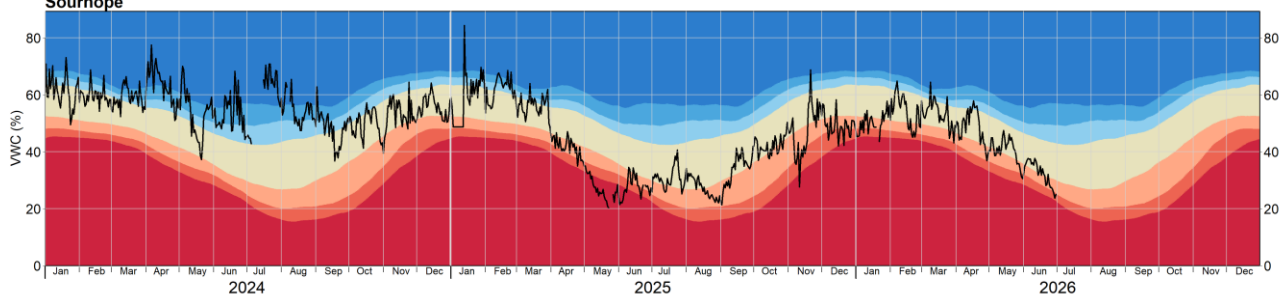
Holme Lacy



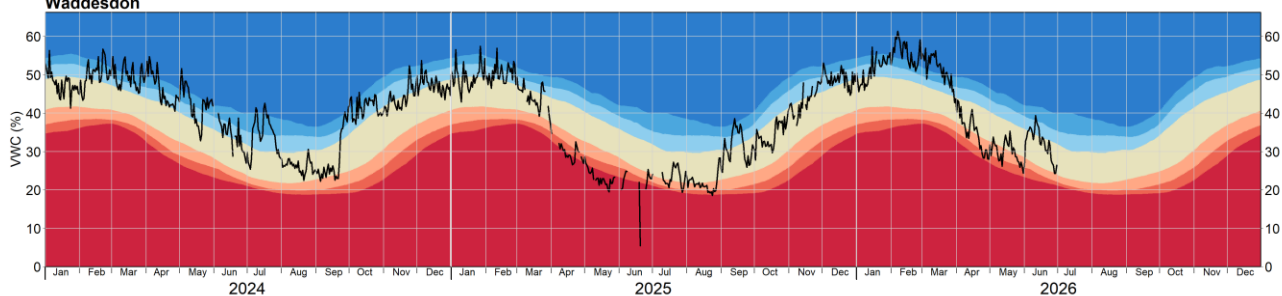
Porton Down



Sourhope

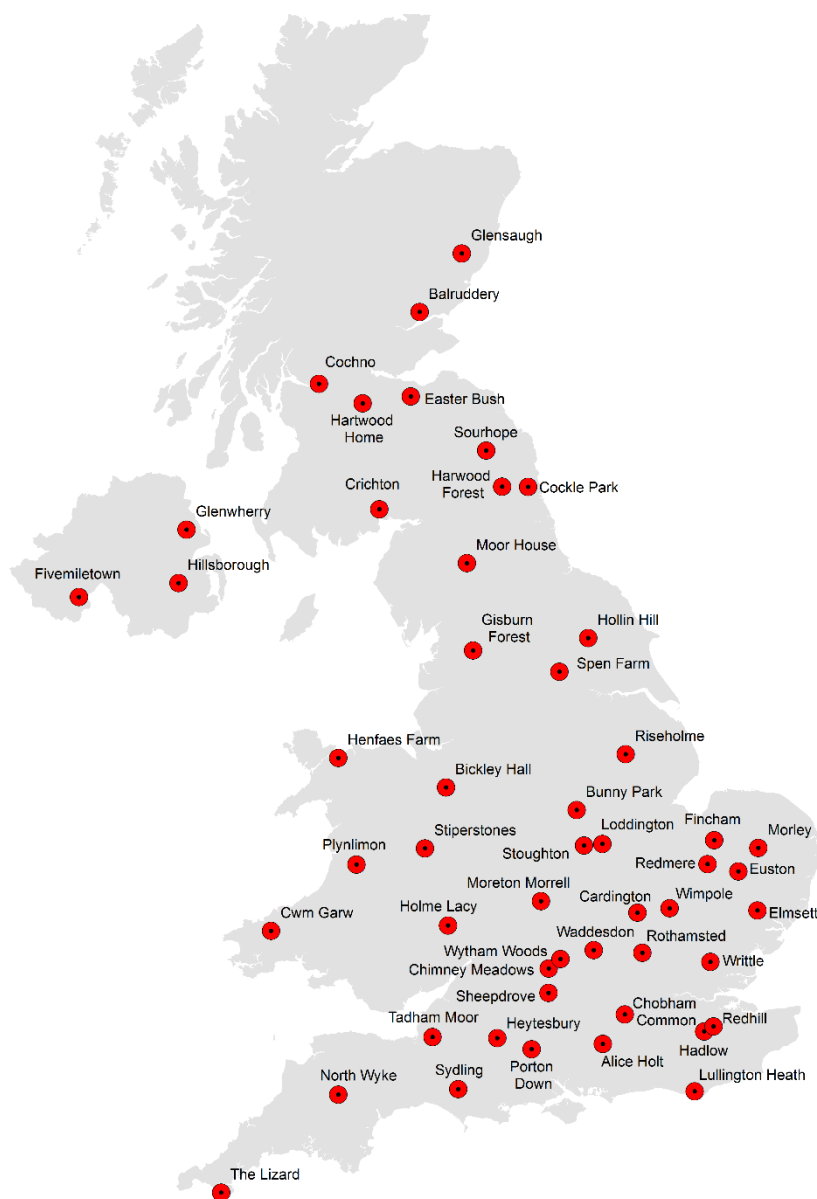


Waddesdon





Issued on 09 July 2026



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.



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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