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The Great Drought of 2025

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'2025 was the UK's warmest and sunniest year on record'

This was the headline from the Meteorological Office News and Media Website on Friday 2 Jan 2026. Their regional summary is in the table below.

Met Office 2025 sunshine and average temperature

2025	Sunshine	Value (hrs)	Average Temperature	Value (°C)
UK	Record ✔	1648.5	Record ✔	10.09
England	Record ✔	1826.4	Record ✔	10.94
Scotland	Second	1399.4	Record ✔	8.63
Wales	Second	1640.6	Second	10.29
Northern Ireland	Eighth	1386.5	Second	10.09

Before we dive in and look at what it meant in the West Midlands, let's consider what a drought is and how it is defined.

A drought according to the World Health Organisation is a "*prolonged dry period in the natural climate cycle that can occur anywhere in the world*".

What are Droughts in the UK?

A drought, as defined by the UK Met Office, is a prolonged period of below-average rainfall, resulting in significant water shortages for human activities, agriculture, and the environment. These events can last from weeks to several years, with impacts including dried-up rivers, failed crops, and reduced water supply. The UK Met Office notes that in the UK, an absolute drought is historically defined as at least 15 consecutive days with less than 0.2 mm of rainfall.

How you assess a drought? That depends where you are. The Intergovernmental Panel on Climate Change uses four common types of drought to try and assess the impact:

Meteorological – when rainfall in an area is below average for the region;

Agricultural – when lack of rainfall or dry soil affects farming and crop growth;

Ecological -when the lack of water affects the local environment; and

Hydrological – when water supplies such as streams and reservoirs are low, which can be caused by low rainfall, lack of snow melt, or other reasons.

In a global context, droughts in the UK are generally not as severe, long-lasting, or ecologically devastating as those in, say, Australia. While the UK is increasingly facing severe, climate-driven droughts that impact water supply, agriculture, and infrastructure, Australia's arid climate, high rainfall variability, and intense, multi-year droughts represent a fundamentally different, and often more extreme, scale of crisis.

We do not get many severe droughts in the UK and so when they do occur there is always a lot of post-event analysis and calls for better preparedness in case they are to be more frequent. The 2025 drought in the UK was certainly severe, marked by the hottest, driest spring on record accompanied by the lowest rainfall in decades during the summer, leading to critically low reservoir levels by the autumn. From farms to gardens and wildlife areas, there were concerns that the impact would be long lasting and take a long time to recover from. Anyone with a garden will remember the struggle to keep lawns and flower beds from wilting in 2025. Water supplies were so short that large sections of the country were declared a drought area.

The UK has experienced over 30 notable droughts in the last 200 years, ranging from multi-year "long droughts" to short, intense summer heatwaves. Some of the worst have been 1854-1860; 1890-1910; 1933-1935, 1975-1976, two periods in the 1990s and at least six very dry years this century culminating in 2025.

Although the UK is a small country the weather can vary tremendously from North to South and so you have to look at the local detail where National claims of extreme weather are concerned, to see if the claims apply to your area. According to the Environment Agency's 'Dry weather and Drought in England Report' (26 September to 2 October 2025) the status of the drought at the end of September 2025 was summarised in Figure 1. Five areas were in drought conditions, seven in prolonged dry weather and three in normal condition.

South East Water, Southern Water, Thames Water and Yorkshire Water all brought in hosepipe restrictions due to the lack of rain. We are more fortunate in the Severn Trent Water area as even before the drought ended they announced that they would not need to impose a hosepipe ban thanks to the secure water sources in Wales.

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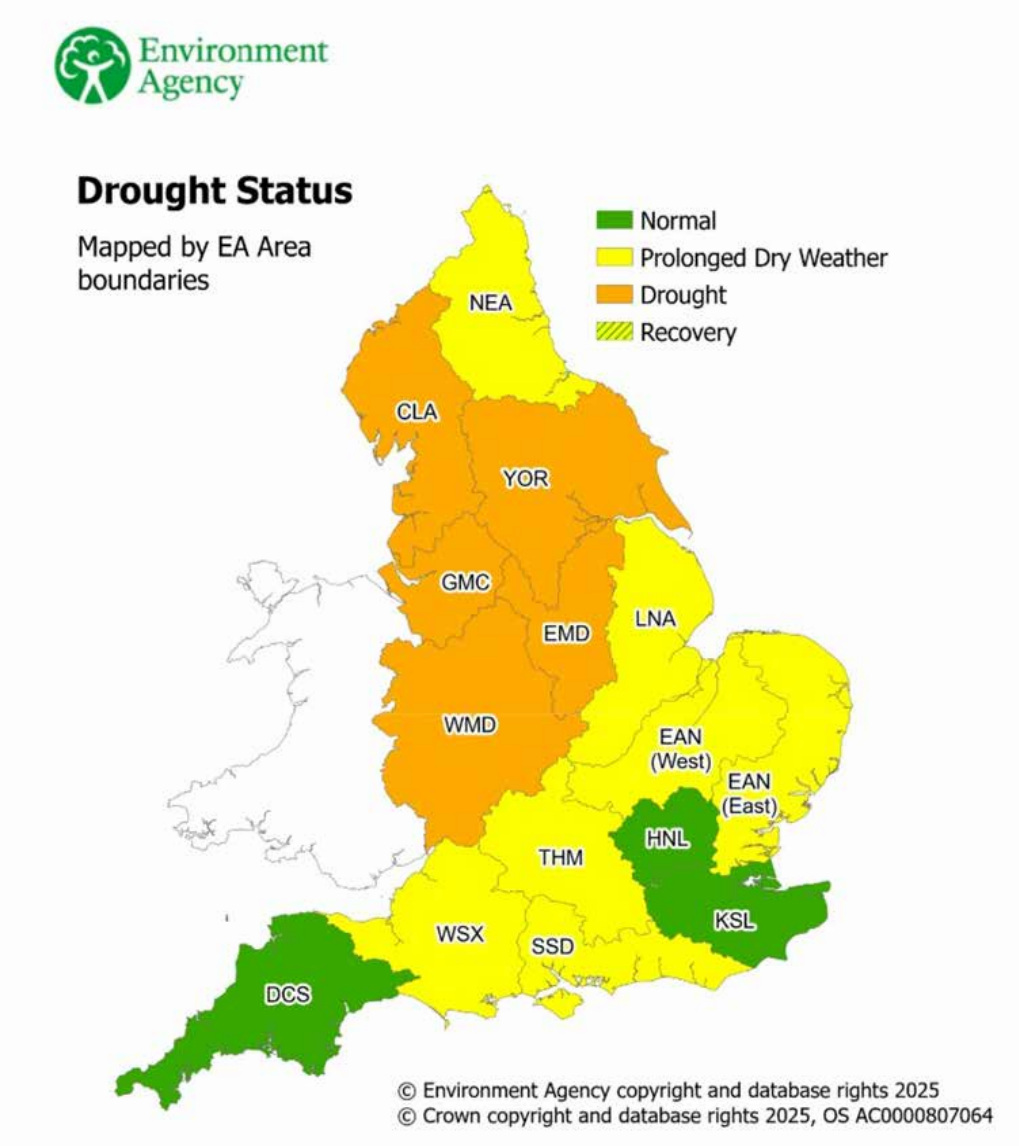


Figure 1. Drought status of Enviroment Agency Areas at the end of September 2025.

What were remarkable about 2025 were the extreme and record-breaking weather events across the UK. The winter months were dominated by cold spells, snow, and powerful storms, while spring and summer brought unprecedented warmth and sunshine. From early March a dry spell set in which kept going, meaning the UK experienced its sunniest spring and warmest summer on record, with multiple heatwaves and high temperatures. Autumn and early winter saw a return to wetter and more unsettled conditions, with several named storms and significant rainfall, particularly in Northern Ireland and Wales.

In the West Midlands, the drought developed slowly from spring with many pools and ponds drying earlier than usual. We do not notice it because the River Severn is supported by Welsh Reservoir releases but the small streams were reduced to a trickle with only groundwater providing any water.

The main feature of the drought was the lack of rainfall from March onwards. Annual rainfall in 2025 was only the 6th driest since 1983 after 2011, 2003, 1996, 1991, and 1995, but if you look at the March to August period, it was the driest on record. Even going back as far as 1767 it was still the driest period recorded at Oxford University, our oldest rainfall station.

Watching the rainfall figures at Kidderminster, the summer total only reached 58% of average by the end of September and 84% by the end of the year, helped by a very wet November.

We have become accustomed to the graph produced by the Met Office (Figure 2) showing the mean annual temperature for the Midlands from 1659. It is apparent that 2025 not only joins the above average trend since 1990 but was in fact the **warmest** with a mean temperature of 10.94°C, surpassing the previous record from 2022 and

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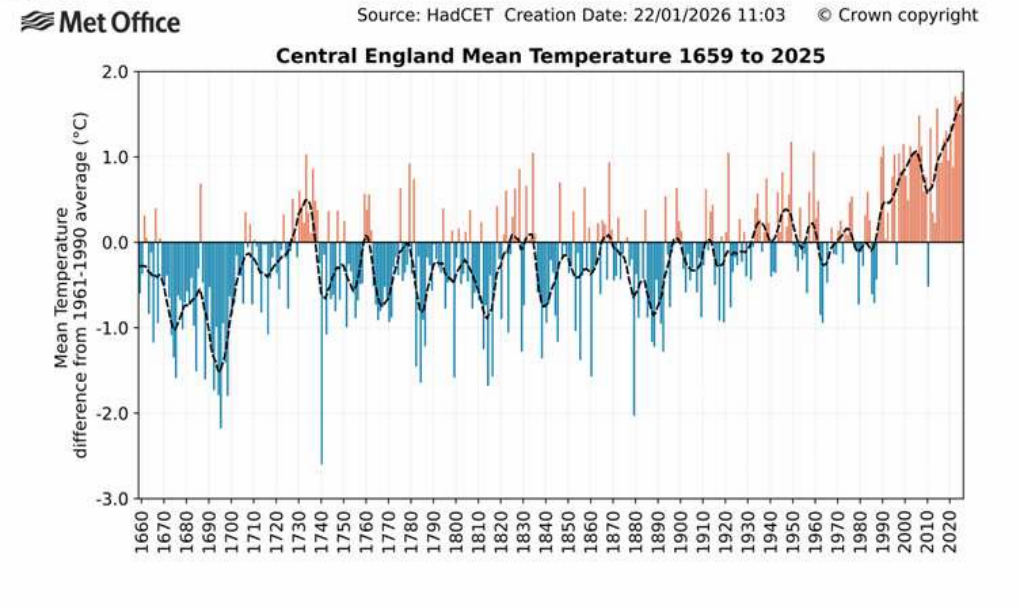


Figure 2.Central England Mean Temperature 1659 - 2025. HadCET

marking only the second time the annual mean surpassed 10°C, highlighting significant ongoing climate change. 2025 heads the list of 2022, 2023, 2014 and 2024 as the five warmest years since 1884.

2025 is also claimed as the sunniest ever year for the UK and England but for the West Midlands was a not quite record breaking. Ross-on–Wye, Herefordshire, for instance was only the 12th sunniest annual total since 1931 and 9th sunniest March to September. Shawbury in Shropshire was similar being the 7th sunniest annual total since records began in 1946, and 9th sunniest March to September.

Local effects

Whilst enjoying the pleasant sunshine and warmth, it is the water features that tell us the environment is under stress. Streams struggle to keep flowing unless there is a high water table but some still dry up such as the tributary of the Dowles Brook from Far Forest, at Rudds Bridge reported by Graham Hill and Rosemary Winnall (2nd July 2025). Wetlands that rely solely on groundwater like Wilden Marsh, similarly were really suffering by the end of August (Figure 3), and the pond at Penny Hill Quarry had gone totally dry by September (Figure 4). Hartlebury Bog has a history of drying out in recent years but in 2025, it went dry in late May several months earlier than usual. Aquatic wildlife suffers badly if their life cycle extends beyond a year and even in water bodies that drop to low levels the waters can become turbid and prone to algal growth in the heat.

The extreme conditions did however, give the opportunity to visit the storm water storage pools that we now see associated with building developments, in order to see if they retain water in a dry spell. Many did not unfortunately but the one at Lea Castle, Kidderminster did, even though it was 100% covered in duckweed.

Just outside our area, the River Teme had parts of its upper reaches dry up leaving fish floundering on gravel beds.

The River Severn is different though because



Figure 3. Wilden Marsh, 15 August 2025. Mike Averill



Figure 4. Penny Hill Quarry, 30 September 2025. Mike Averill

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although it may look very low, it is never allowed to be lower than a specified level. This has been the case since the late 1960s when Clywedog Reservoir was built and releases from this and Lake Vyrnwy now supplement flows in the River Severn. This is not directly for water supply rather it is to maintain a healthy flow for extraction as well as keep a reasonable ecological regime going. In addition to the two reservoirs, there is also the Shropshire Groundwater Scheme which pumps water from the Triassic sandstones in Shropshire into the tributaries of the River Severn and this was turned on in 2025.

In 2025 Llyn Clywedog was 71% full at the end of September after many releases while it had been over 95% full at the end of the preceding March. It was fortunate that the very wet 2024 had fully filled all the reservoirs over the winter. In 1976 by comparison, the reservoir was only approximately 35% full after a very dry 1975. Water became so scarce that there were periods in 1975 when a drought order had to be enacted to enable lower than the statutory minimum flow at Bewdley for a short period. This was before the Shropshire Groundwater Scheme was built in 1984.

The 2025 drought was notable for its record-breaking mean temperatures and exceptional soil dryness, with river flows in some areas comparable to, or lower than, notable drought years like 1976, 2018, and 2022. However, the 1976 drought remains the benchmark for the most extreme water supply restrictions and peak daytime heat.

How does 2025 compare to the 1976 Drought?

In living memory we always look back to 1976 which is always quoted as our most severe drought so it is useful to compare that with 2025. (How does summer 2025 compare to summer 1976 Author: Met Off Press Office 5 September 2025)

The summer of 1976 is legendary in British climate statistics. It is often regarded as the benchmark for extreme British summers. However, the climate in which it occurred was fundamentally different from today's. While summer 2025 is exceptional in the context of the historical record, just as 1976 was at the time, current climate projections suggest that similar conditions could be much more common in the future.

The main character of the 1975/76 drought was that it lasted for 17 months covering a winter period

2025 was, like 1990, an example of one of those ‘one off’ summer droughts. 1976 was long running and more impactful on water supplies because of the lack of winter rainfall period to recharge the reservoirs and top up groundwater levels.

How rare is a summer like 2025?

A key question is how truly exceptional was 2025? We must once again go to the UK Met Office for their expert analysis and they say in their Blog: *The year in weather: 2025*. Met Office Press Office 29/12/2025.

> *Attribution studies show that, in a “natural” climate without human-induced greenhouse gas emissions, a summer like 2025 would be a roughly one-in-three hundred and forty-year event. In our current climate, however, it is estimated to be a one-in-five-year event, approximately 70 times more likely due to human activity. This means that, while summer 2025 is exceptional by historical standards, similar scenarios might be much more common in the near future.*
>
> *It is important to distinguish between mean, maximum, and minimum temperatures. While 2025 set new records for mean and minimum temperatures, the record for daily maximum temperature, calculated by averaging the daily peaks across the entire country for a season (June-July-August), still belongs to 1976 as it had 16 days exceeding 32°C, compared to nine days in 2025.*

While the 2025 UK drought was severe and broke several historical climate records, it was not definitively "worse" than all others; rather, it was uniquely extreme in specific categories like temperature and spring dryness, with multiple heatwaves and high temperatures. Autumn and early winter saw a return to wetter and more unsettled conditions.

In summary, the UK experienced a severe drought with temperature, sunshine and rainfall records being broken but locally we missed out on record sunshine totals. Lack of rainfall however, was record breaking with the driest March to September period recorded since 1767.

The summer of 1976 was extraordinary for its time, but in today’s world, summers like 2025 are no longer once-in-a-lifetime events. Understanding this shift is crucial for how we prepare for and respond to future extremes.