



## Monthly Weather Summary November 2024

**A month of contrasts and of two halves**

### General and Barometric Pressure

November was in many ways the proverbial *'month of two halves'* and managed to throw up some quite wide ranging contrasts.

For this site, the month would record two new November records:

The lowest minimum temperature and also the greatest 24hr rainfall total.

With high pressure dominant during the first half of the month, the only good thing that could be said about it was that it was dry. This being due to the fact that it was also very dull and mild.

On the first fifteen days of the month only one day didn't have 100% cloud cover at the 09h obs and the one day that didn't still had 95%!

It was also mild. The first three days had minimum temperatures over 9°C and high minimums would be a feature through to the 10<sup>th</sup>.

Most, but not all, day-time maxima were also above average.

Consequently air pressure would finish considerably above average for the month by 10.5MB, pressure rising to a high of 1042.2 MB (12<sup>th</sup>), the lowest being 980.4 MB during Storm Bert later in the month.

On the 17<sup>th</sup> it turned cold due to the introduction of an Arctic air-mass. Starting foggy, the 18<sup>th</sup> would only manage a maximum of 1.4°C, with the next two days both struggling to 2.1°C. However, the skies now cleared and this allowed for some very low overnight temperatures.

Both the 18-19<sup>th</sup> had seen air frosts, but a low of -7.6°C on the 20<sup>th</sup> was a new record low for November at this site; a record that lasted a day!

A minimum temperature of -9.0°C (15.8°F) on the 21<sup>st</sup> is a notably cold night and especially so for November. The 20<sup>th</sup> to 22<sup>nd</sup> were also decent sunny days.

However, the first 21 days of the month only saw 3.4 mm of rain, but this would change on the 23<sup>rd</sup> with the arrival of **'Storm Bert'**.

*Bert* (the 23<sup>rd</sup>) would provide 61.5% of the month's rainfall – but if the totals for the 22<sup>nd</sup> (15.6 mm – and which all fell between Mn and 09h on the 23<sup>rd</sup>) and the 24<sup>th</sup> (7.5 mm) are included, *Bert* provided 85.3% of the monthly total.

And in a month of contrasts, the 23<sup>rd</sup> managed to sum it up in just the one 24hr period – the day started with an air frost, was the only day of the month to see falling snow, but also the only day to have a 'day of lying snow'. However, it would then go on to be not only the wettest day of the month (and the wettest November day in my records), but also the warmest!

Indeed the 23<sup>rd</sup> started with 2 cm of level snow on the ground, but by 0730h the snow from overnight was turning to sleet and quite quickly the day became milder with that snow gone by lunch-time.

Through to the end of the month the 26-28<sup>th</sup> were dry, with more fairly sharp air frosts recorded on the 27-29<sup>th</sup>. Rain arrived late on the 29<sup>th</sup> with the month finishing on a grey and drizzly note.

## Temperature

With a mean minimum of 2.01°C and a mean maximum of 8.90°C November 2024 saw the temperature 0.63°C below the fifteen year average for this site.

This saw it being the coldest November since 2019 and since the record commenced (2009), nine have been warmer and six have been colder.

One of the contrasts of the month was the temperature and demonstrated by the first half of the month recording a mean temperature of 8.02°C whilst in the second half it was only 2.89°C.

The highest maximum during the month was 14.2°C (57.6°F – 23<sup>rd</sup>) and the lowest minimum, -9.0°C (15.8°F -21<sup>st</sup>).

At the Met' Office site at Shap a mean minimum of 1.4°C and a mean maximum of 8.4°C saw the monthly mean temperature 0.55°C below average.

It was the coldest November since 2019 and since the record began (1992), twenty have been warmer and ten have been colder (no data for two years).

## Precipitation

At Maulds Meaburn rainfall totalled 96.9 mm (3.81 In), this being 74.8% of the average for 2007-23, making it the driest November since 2021.

Since the record began (2007), six have been drier and eleven wetter.

Locally rainfall at Maulds Meaburn North was 100.7 mm and at Castlehowe Scar 132.3 mm.

At the Met' Office site at Shap, rainfall of 129.2 mm represents 63% of its average making it the driest November there since 2021.

And since the record commenced (1989), seven have been drier and twenty-eight wetter.

Figures from a selection of Environment Agency's rainfall sites were, (figure in brackets being the monthly average for 1991-2020) *'Data kindly provided by the Hydrometry and Telemetry team of the Environment Agency:*

At **Appleby in Westmorland** rainfall of **68.5 mm** (LTA of 86.7 mm) represents 79.0% of its average (1856-2023) and made it the driest since 2021.

Since the record commenced, 65 have been drier, 102 have been wetter and one was exactly the same.

**Kirkby Thore** **51.2 mm** -- (85.2 mm)

**Haresceugh Castle** (Kirkoswald) **59.33 mm** -- (107.0 mm)

**Brothers Water** **180.12 mm** -- (315.9 mm)

**Seathwaite Farm** (Borrowdale) **176.0 mm** -- (360.6 mm [average for 1845-2023]) represents 48.8% of its average, making it the equal driest since 1993. The previous driest to this being 1983.

Since the record commenced, twenty-eight have been drier, one hundred and fifty have been wetter and one was the same.

## OTHER:-

During the month the following '*days of*' were recorded:

Fog on two days

Snow fell on one day and was lying on the ground at 09GMT to a depth of at least 1cm on one day

The wind speed averaged 4.00 mph, with a maximum gust of 46 mph (24<sup>th</sup> and 25<sup>th</sup>).

We had 11 Air Frosts in the month (year 39) -- Grass Frosts totalled 17 (year 86).

One foot soil temp ranged from a low of 4.2°C on the 23<sup>rd</sup> to a high of 11.3°C on the 2<sup>nd</sup> with a mean of 8.3°C

One meter soil temp ranged from a low of 8.2°C on the 30<sup>th</sup> to a high of 11.5°C on the 4-5<sup>th</sup> with a mean of 10.3°C

The January to November period of 2024 is:

0.38°C warmer than the average for 2009-23 and with 117.9% of average rainfall for 2008-23

## Cumbrian Rainfall

The simple summary for November would be: *'very dry up to the 21<sup>st</sup>, wet thereafter, but with one very wet day in particular'*.

And that one very wet day was the 23<sup>rd</sup> which at most sites accounted for over 50% of the month's final total, rising to 71.5% at Kentmere (131.8 mm out of a total of 184.4 mm – this was also the greatest 24Hr fall in the county for the month).

Those first 21 days (22 at some sites) provided the driest spell of weather this year and which saw just 5.6 mm recorded at Dearham (Nr. Maryport), even Honister only saw 25.8 mm in this time.

However, in what would become an horrendous day, the 23<sup>rd</sup> was excessively wet, the following sites all recording in excess of 100 mm :

Kentmere	131.8 mm	Wet Sleddale	122.8 mm(+)	Demings Moss (A6 Summit, Shap)	119.4 mm
Coniston Copper Mines	113.0 mm	Honister	110.4 mm	Greenside Mines (Glenridding)	100.8 mm

Mainly within the LDNP the 30<sup>th</sup> would also be another wet day.

However, whilst the 23<sup>rd</sup> was virtually the wettest day across the county, the trend was bucked at Carlisle (30<sup>th</sup>) and Abbeytown (13<sup>th</sup>) and Abbeytown along with a few other sites in the far western portion of the county would record the lowest percentage falls along with very low monthly totals.

On a fall of 31.4 mm the Met'O site at Bridgefoot (just east of Workington) had the lowest percentage fall of 25.2% whilst the lowest monthly total at a standard site was 23.6 mm at Dearham (EA).

Locations around Carlisle also saw low totals; Scotby (non-standard) recorded just 23.0 mm with Cumwhinton having 25.8 mm and this month no site broke the trend, below average rainfall been recorded across the whole county.

(+) The EA site at Wet Sleddale is 638m further up the valley than the Met'O site at 'Shap' where only 88.2 mm was recorded.

Whilst the 88.2 mm was the wettest ever November day in the Shap record, the disparity in the two totals for such a short distance is still striking.

Are both totals spot-on? Does the slightly over-exposed site of Shap under record? Does spray from the reservoir somehow enter the gauge at Wet Sleddale?

Fair and reasonable questions, but which no exact answer as been forthcoming – and wouldn't it be better if the EA gauge was on the inlet side of the reservoir as opposed to the outlet?

**Impacts** – Storm Bert on the 23<sup>rd</sup> brought various impacts across the county. This included the A66 being closed to all vehicles from the evening of the 22<sup>nd</sup> due to the 'impending storm'.

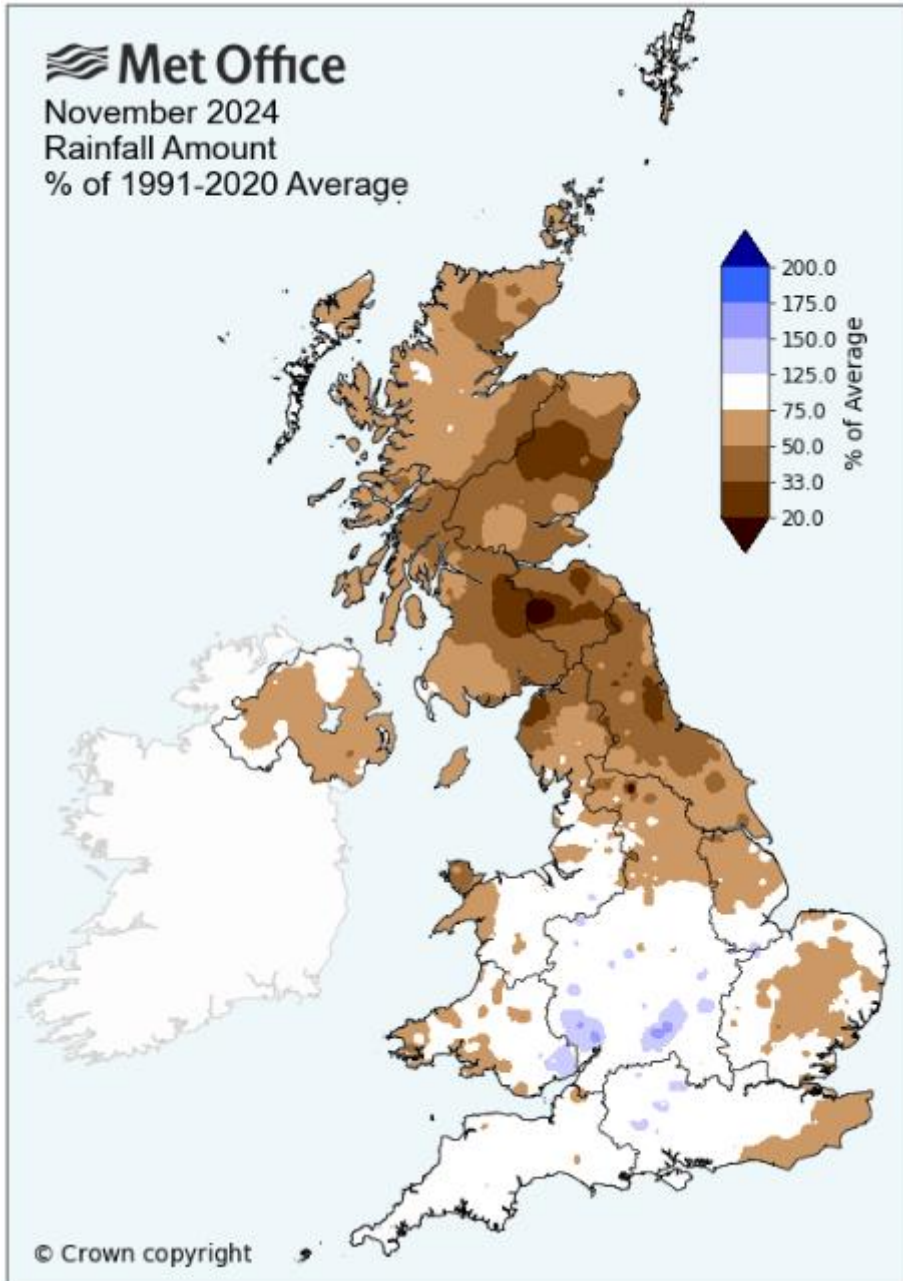
On the morning of the 23<sup>rd</sup> approx' 4000 properties 'across the region' were without electricity (power cables brought down), but Electricity North West were able to restore power quite quickly; however come 18h that evening there were still properties across the county without power, but with *'engineers on site'*.

Then with heavy rainfall and snow-melt, numerous roads became impassable due to more localised flooding.

**Thunder** – none

**Snow** – very limited and mainly just on the 23<sup>rd</sup> with any snow that was lying having melted come the afternoon

November's Rainfall Anomaly



November's Temp' Anomaly

