## 18-19 November 2009

## (Heavy rainfall and flooding in the Lake District, Cumbria)



## General summary

A warm, moist south-westerly airflow affected the UK between 18 and 19 November. This was associated with a very deep depression moving slowly north-eastwards between Scotland and Iceland.

A weather front associated with airflow brought exceptionally prolonged and heavy rainfall to the Lake District as the air was forced to rise over the high ground. Heavy rainfall persisted across northern England for around 36 hours.

High rainfall totals falling on already saturated ground caused many rivers in the Lake District to significantly exceed their previous maximum flows.

Significant weather event
The highest rainfall was recorded at Seathwaite in Borrowdale which recorded 316.4 mm in 24 hrs . The high ground toward the lower end of Borrowdale received more than 400mm of rainfall in the 72 hrs between 0900 on 17 and 0900 on 20 November.

The worst flooding impacts occurred in the valley of the River Derwent flowing through Borrowdale to the coast at Workington. There was widespread disruption across the area with many bridges damaged. In Workington a police officer died after the A596 Northside road bridge collapsed effectively cutting the town in half as the other bridge was also severely damaged. Cockermouth was also severely flooded with much of the town centre under 2 metres of water.

|  |  | Table of rainfall, | 17-20 November | 09 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount (mm) | Amount (mm) | Amount (mm) | Amount (mm) | Amount (mm) |
| Station** | 0900 17th - 0900 | 0900 18th - 0900 | 0900 19th - 0900 | 0900 18th - 0900 | 0900 17th - 0900 |
|  | 18th (24 hours) | 19th (24 hours) | 20th (24 hours) | 20th (48 hours) | 20th (72 hours) |
| Seathwaite | 60.8 | 142.6 | 2530 | 395.6 | 456.4 |
| Farm | 60.8 | 142.6 | 253.0 | 395.6 | 456.4 |
| Honister Pass | 73.4 | 151.8 | 229.2 | 381.0 | 454.4 |
| High Snab | 63.0 | 110.2 | 8.2 | 38.4 | 401.4 |
| Farm | 63.0 | 110.2 | 8.2 | 8.4 | 401.4 |
| Thirlmere, | 72.6 | 103.0 | 151.2 | 254.2 | 326.8 |
| Nook | 72.6 | 103.0 | 151.2 | 254.2 | 326.8 |
| Mickleden, | 57.0 | 106.6 | 145.6 | 252.2 | 309.2 |
| Middle Fell | 57.0 | 106.6 | 145.6 | 252.2 | 309.2 |
| Rydal Hall | 49.5 | 105.5 | 148.1 | 253.6 | 303.1 |
| Grasmere, Tanner Croft | 54.0 | 85.2 | 155.5 | 240.7 | 294.7 |
|  | 54.0 | 85.2 | 155.5 | 240.7 | 294.7 |
| Brotherswater | $r \quad 48.2$ | 91.6 | 153.4 | 245.0 | 293.2 |
| Dale Head | 51.2 | 90.8 | 150.8 | 241.6 | 292.8 |
| St Johns Beck | - 49.4 | 83.0 | 133.4 | 216.4 | 265.8 |

Table of 24, 48 and72hr rainfall totals at sites across the Lake District between 090017 and 090020 November 2009.

## Daily weather extremes 18 November - 19 November 2009

Highest Maximum Temperature (19 November)
$16.0^{\circ} \mathrm{C}$ at Nantwich, Reaseheath Hall (Cheshire)
Lowest Minimum Temperature (18 November)
$-2.4^{\circ} \mathrm{C}$ at Aboyne No 2 (Aberdeeshire)

## Most Rainfall (19 November)

253.0 mm at Seathwaite (Cumbria)

## Most Sunshine (19 November)

7.7 hours at Jersey: St Helier (Channel Islands)

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