

Flooding in 2020

MIKE AVERILL



Figure 1: The Flood Barrier at Severnside North Bewdley

Mike Averill

We are quite used to winter floods in Bewdley with the sight of the Barrier often going up around Christmas but there had been a long run without local flooding from February 2016 to 2019. When 2019 arrived, there were two minor floods in March & June but it was the end of that year that softened us up for some very severe flooding a bit later, in early 2020.

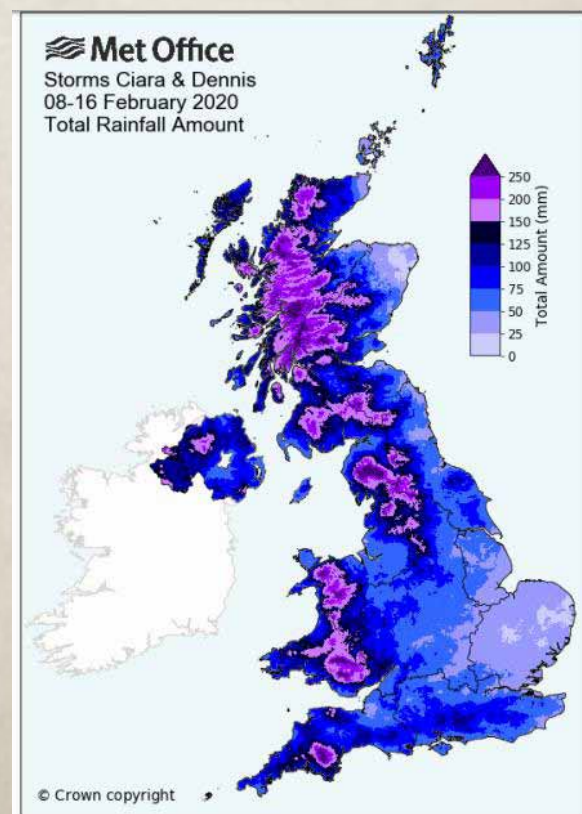
Build up to the floods in February 2020

September, October and November 2019 were all above average rainfall months ending the year 25% up on the annual average so no surprise that there was a fairly high flood on the 29th October peaking at 3.83m which is around the base of the demountable barriers on Severn Side North. All this wet weather saturated the ground in the winter so when we got the wettest February on record in 2020 it was bound to cause problems. What was particularly problematic was that most of the month's rain fell on the 9th and 15/16th which happened to be as a result of Storms Ciara and Dennis respectively.

Storm Dennis was a European windstorm which, in February 2020, became one of the most intense extratropical cyclones ever recorded, and rainfall totals from Storm Dennis caused the most significant impacts with flooding in parts of South Wales and England. The Met Office has now called February 2020 the wettest February on record for UK, England, Wales and Northern Ireland. In their map they show how much rain fell across the UK overall for the 9-day period from 8th to 16th February, including both storms Ciara and Dennis. Over 100mm of rain fell across many western parts of the UK through this period with 150 to 250mm or more across the high ground of Dartmoor,

Wales, Northern England, the Southern Uplands, West Highlands and parts of Northern Ireland. Most of the UK received the whole of February's average rainfall over this 9-day period, with around 150% fairly widely across east Wales, the West Midlands and a swathe of the Pennines through to Edinburgh and over 200% locally in the Pennines and parts of Gloucestershire and Herefordshire.

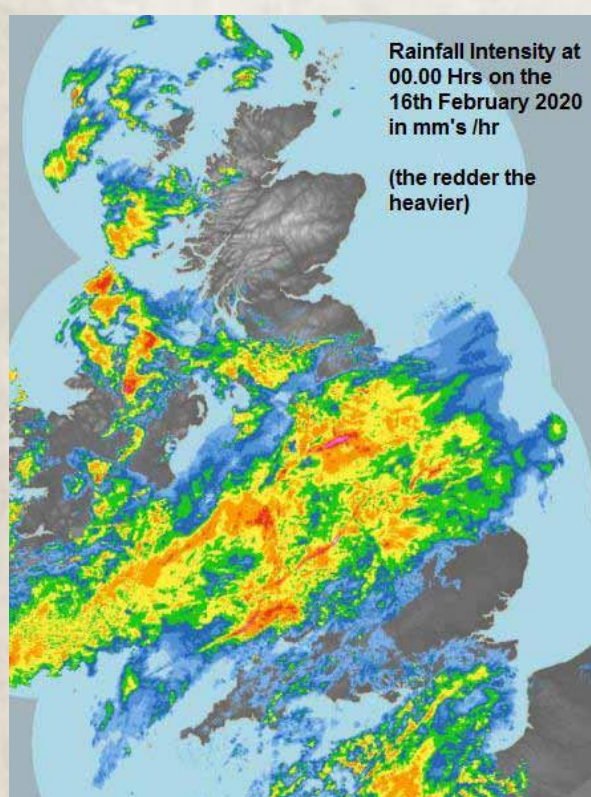
Storm Dennis produced rain that particularly affected



Wales, the Midlands and The Pennines, falling continuously for 24 hours from 11 o'clock on the 15th February. Rain-radar images at 00.00 UTC 16th February 2020 show the heavy and persistent rainfall from storm Dennis with the fronts sweeping across the UK.

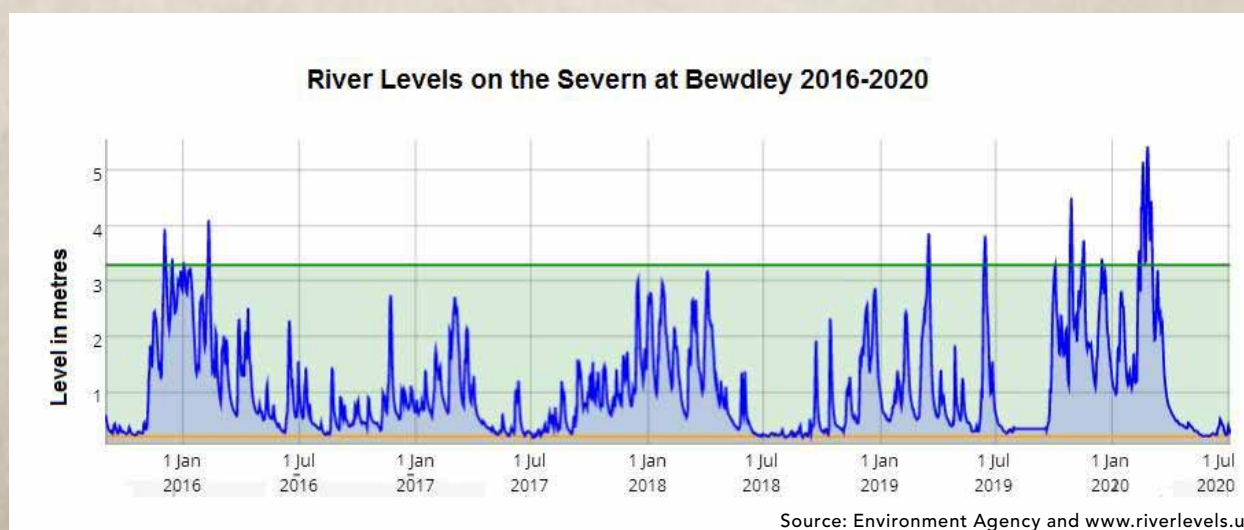
Flooding started causing issues across the West Midlands on 16 February, and a major incident was declared in Worcestershire as rising waters swept a woman to her death in the River Teme near Tenbury. In Hereford, the River Wye reached its highest level in

recorded history, and across that county landslides and high river levels damaged roads and bridges. As we have come to expect Bewdley usually gets the results of Welsh rain 3-4 days later, and so it was that the first peak of 5.24m reached Bewdley on the 19th February. Heavy rain again on the 24th in Wales brought another higher peak of 5.47m on the 26th at Bewdley. This peak was the second highest level since local records began in 1970, just short of the Nov 2000 level and historically only 1947 would have been higher. Levels remained high with another peak on March 3rd at 4.57m. On the ground the regular flood defences performed well (Figure 1) but the extremely high levels caused issues for the temporary barriers in Bridgnorth and at Beales Corner Bewdley.



Rank	Date	Stage (m's)	Flood Levels River Severn-Bewdley
1	1947	5.820	This level from local flood marks
2	02/11/2000	5.563	Continuous Recording commenced in 1970 Note on Flood peaks at Bewdley: River level recording stations record a level related to a local datum, and that is always related to Sea level, so that if the flood level is quoted as 4.50m's that is 4.50 m's above the local datum which is 17.000 m's at Bewdley, (giving a level of 21.500 m's above sea level)
3	26/02/2020	5.476	
4	13/12/2000	5.305	
5	19/02/2020	5.244	
6	12/02/2014	5.037	
7	30/10/1998	4.985	
8	22/01/2008	4.905	
9	07/02/2004	4.899	
10	25/12/1993	4.668	

Flooding in the Wyre Forest and Bewdley is normally either local as seen in the Dowles Brook or it may have originated outside the area in Wales producing floods in the Severn. During February, levels remained high in the Dowles and its tributaries but they didn't reach the peaks that we had in 2007 and 2012. Dowles actually had higher levels in late Dec 2019 at 0.902m and the wet February didn't produce levels over 0.6m even though 36.4mm fell on 15th Feb, one of the highest daily totals locally, but it was steady rain over 24 hours and not particularly intense. Properties at Bewdley affected



Source: Environment Agency and www.riverlevels.uk

Wyre Forest Study Group

were mainly on the east bank extending from the town up along Northwood Lane, where many dwellings close to the river became flooded. These properties were originally only for holiday use but have become used more permanently nowadays.

According to the Environment Agency in England, 3,431 properties were flooded during February, with

over 80,000 others being successfully protected by flood defences. The insured property market loss is estimated at around GBP 300 million (EUR 344 million), making the February 2020 floods the costliest flood event in the UK since the winter floods of December 2015, which cost the industry GBP 1.1 billion (EUR 1.26 billion) at the time.



Riverside properties flooded along Northwood Lane on 26th February 2020.

Mike Averill



Autumn leaves on Dowles Brook.

Graham Hill