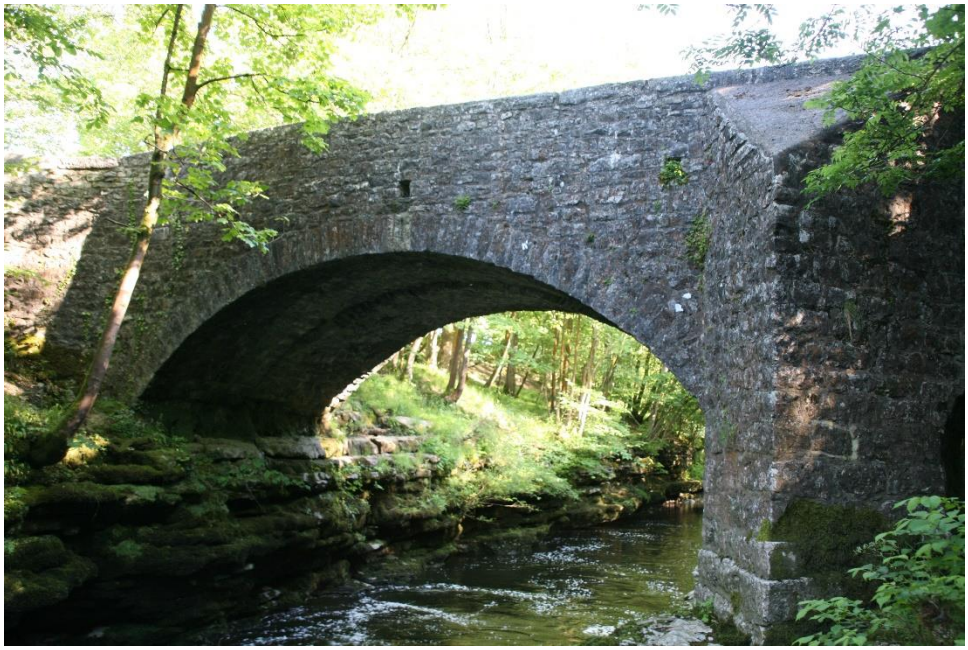
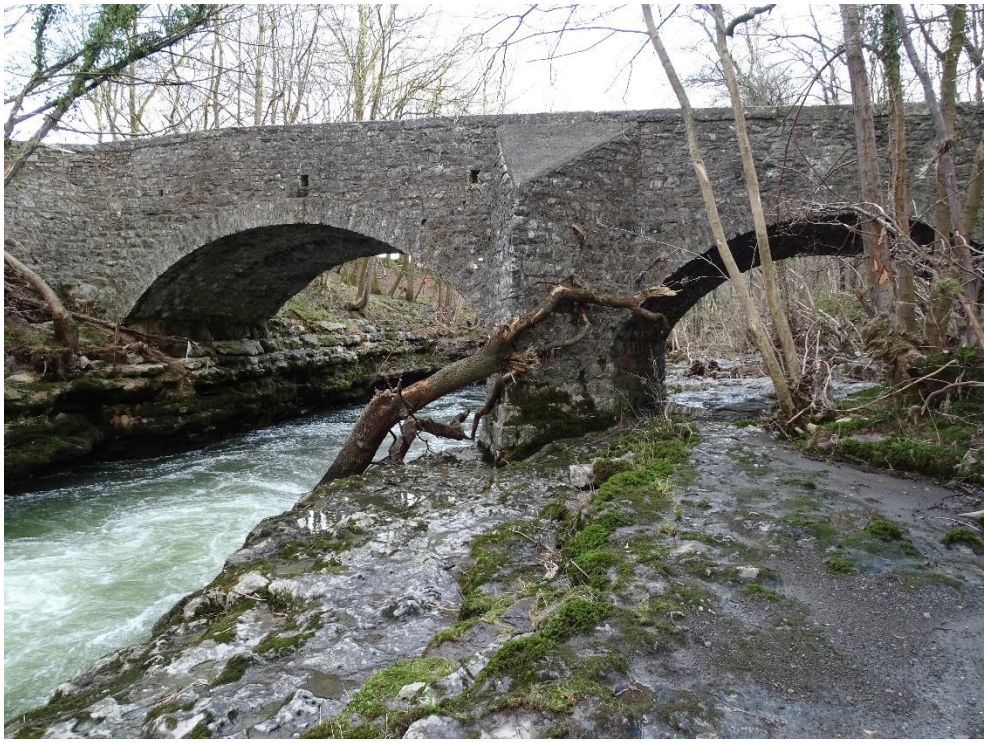
Bridge of the Month No61, January 20165
Natland (again)

After 5 years of producing these notes, only about 530 people are signed up to receive them and typically only about 300 actually open them. I am aware that some people print them off and circulate them but please understand that you are subverting one of the only benefits I get from this work which is proper direct contact with interested readers. PLEASE encourage people to sign up for themselves here http://eepurl.com/ccAyL. There is a full archive of pdf files at https://goo.gl/crU7aZ.

20 months gone and back to Natland. Here to embark on a major review of Cumbrian damaged bridges following the flood in late in December. The scale of that issue is visible from the map we built based on the data made public by Cumbria CC. Anyway, we visited Meg again in Natland so I walked down to have a look at the little bridge there. Not high on the list of priorities but it tells us a lot about the flooding. To begin with, here is a May photograph from the last visit in 2014. There is a dry span to the right but the river overtopped the bridge this time round.

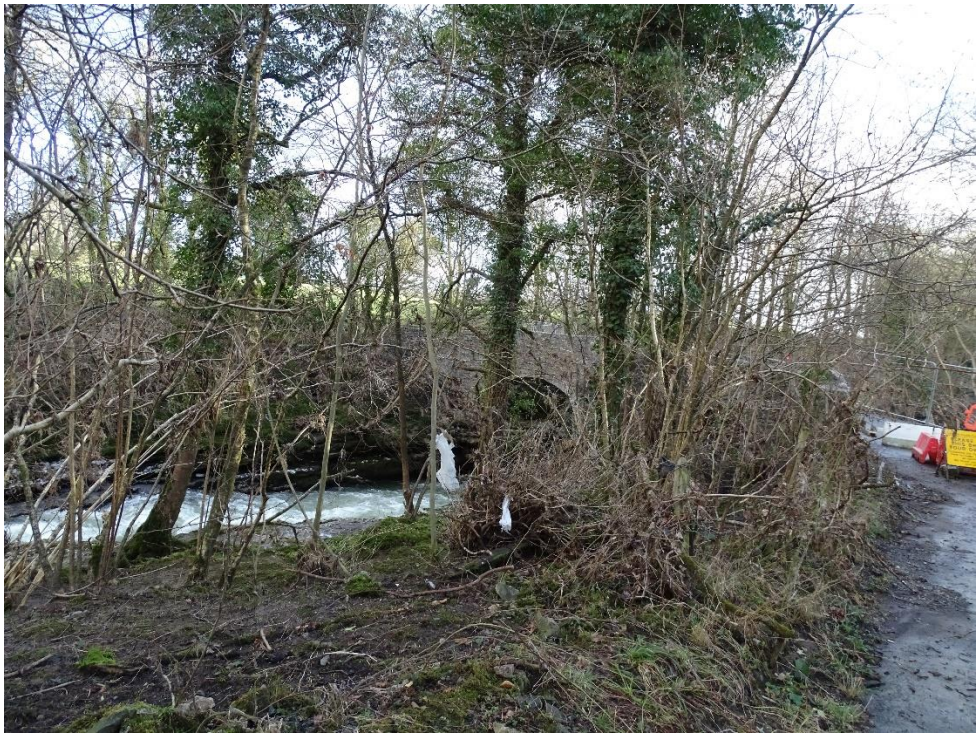


A similar view from 30th Jan 2016 is shown below. I suspect that the trees to the right helped to impede the flow and so raise the level upstream.

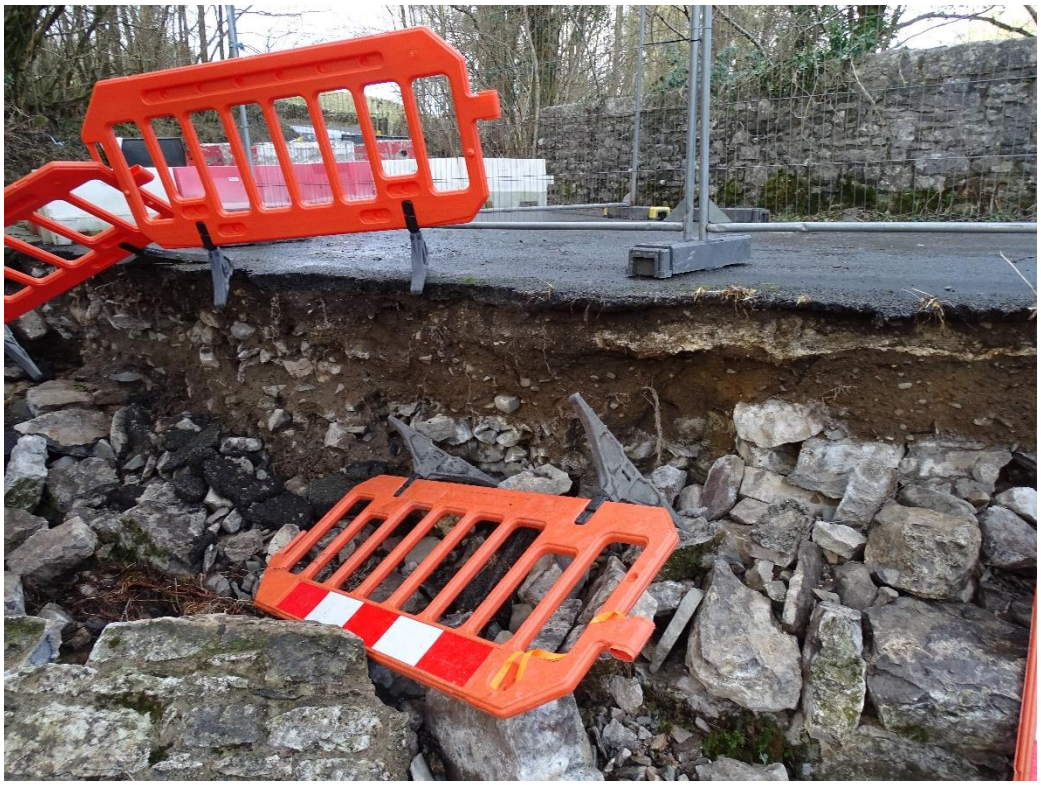


I don’t know of any record from the actual flood, but the flow of water got on to the approach road further to the right in this picture, the west in geographical terms.

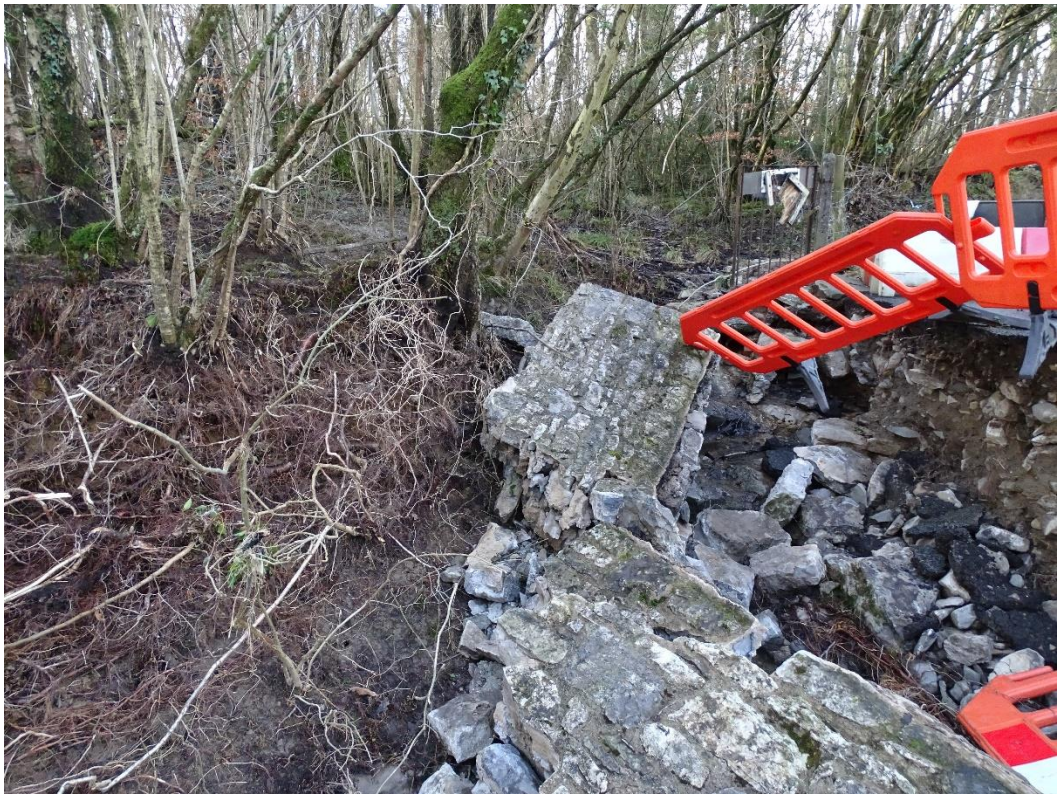
The picture below shows the approach and gives a clearer picture of the scale of the flood. There is debris in the bushes above carriageway level at the front. Part of the river flow diverted o to the road and hit the inside curve of the parapet wall taking down the wall right to foundation and arch level.



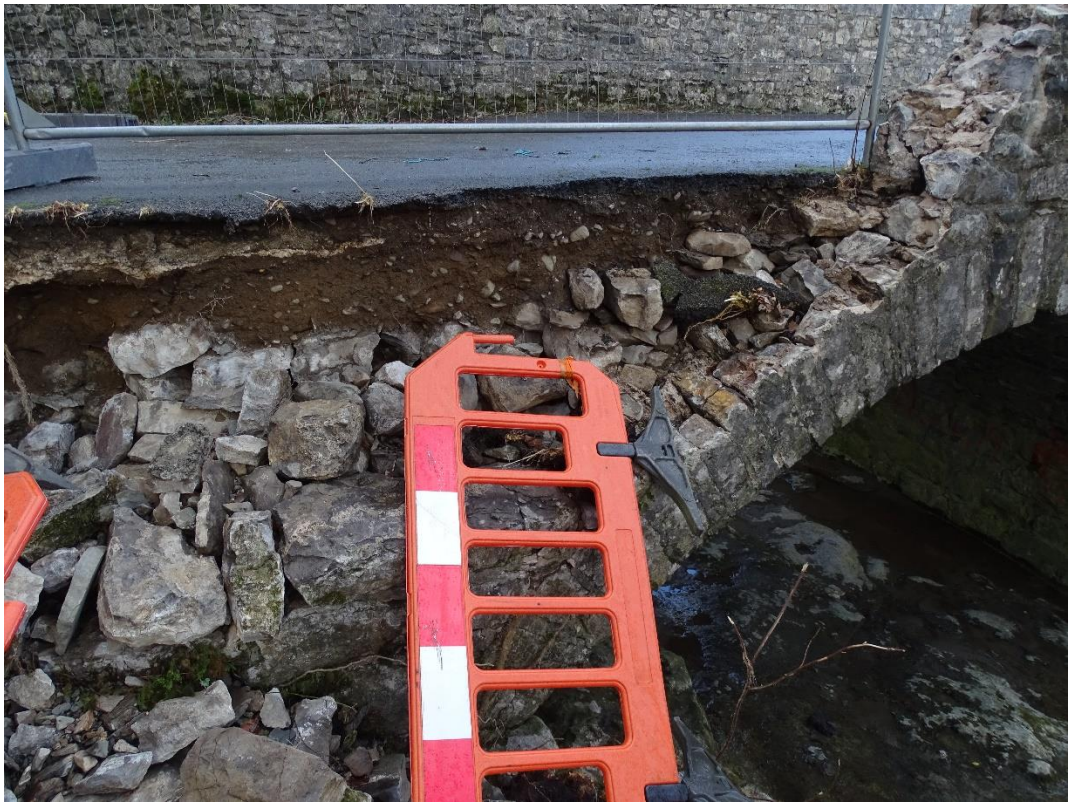
Below is a view back up the road from the fallen masonry. The river came over just above the furthest barriers.



And below is the damaged wall.



A view from the other direction shows the scale of destruction. Notice the spit voussoir stone just to the right of the plastic barrier base.

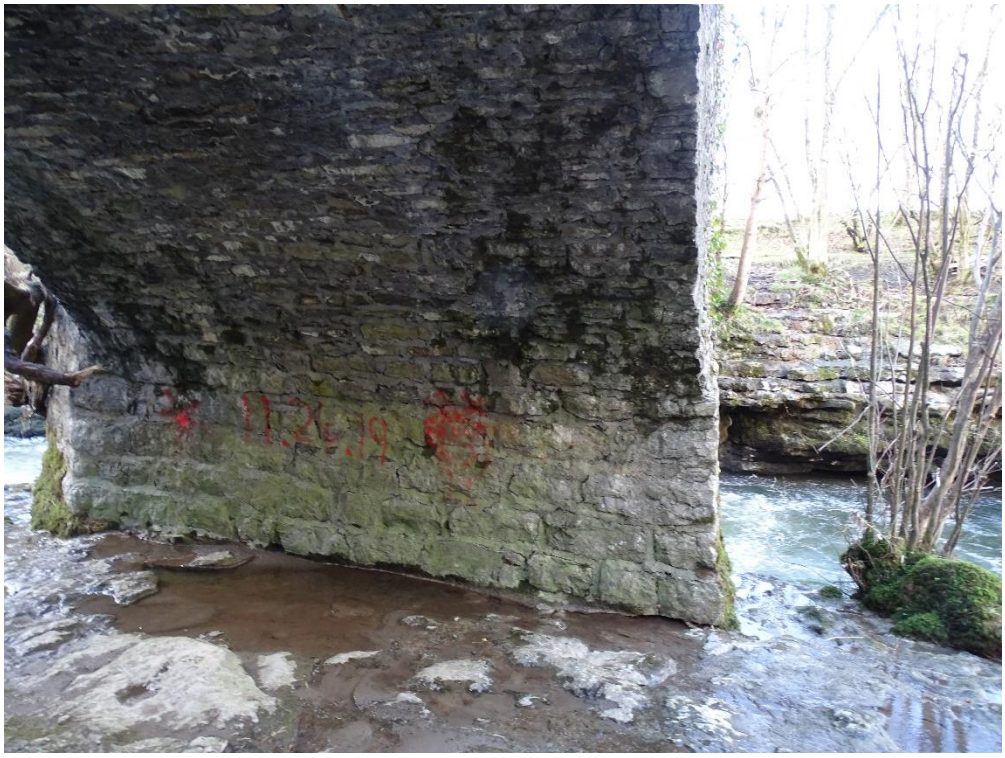


The damage underneath is much less severe, though clearly there is damage.

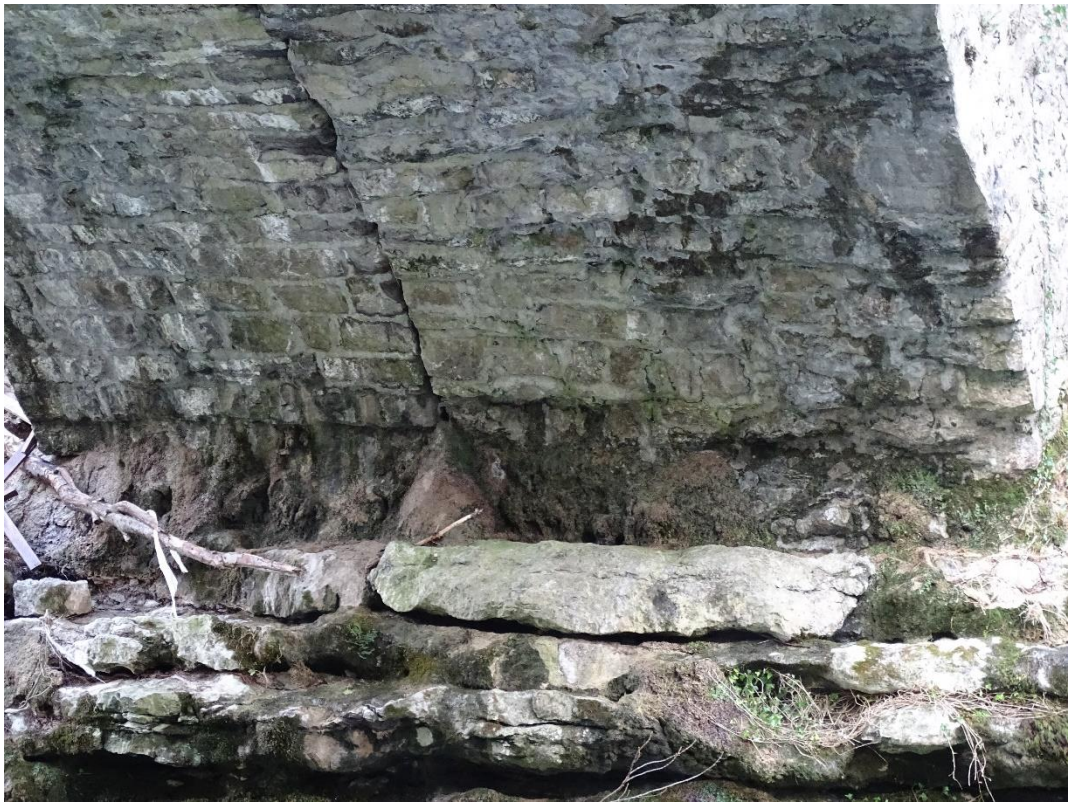
Below that crack is the most obvious place. Since I took this photo, I have been wondering about the attrition round the crack. I think that the wall must have rocked considerably before collapsing, first generating this crack and then pushing the outer stone up and down abrading the corners.

In the scale of things, this is modest damage and a sound rebuild job on the spandrel and parapet should improve matters.

At the opposite springing of this side arch there is wash out of the mortar at the foundation and that really needs replacing quickly before it creates further damage. There are already 2 cracks visibe around it. There is a crack right round the first stone, then another 3 stones in rising diagonally up the joints. Another big flood might well remove these if they are not repaired.



The thing that alarmed me most was the eastern springing of the main arch.



The first impression is of clay as though the stone facing has been lost. Luckily, I was able to go back to my previous set. Though I don't have a shot from this angle, the first image above can be pushed a little to reveal the condition from 2014.

And here we see that the springing actually looks the same.

This is my biggest excuse for making a revisit this month. I am forever banging on about two open eyes and one open mind. I was here myself 2 years ago and though “surely I would have noted that”? But it seems not. On the previous visit I had seen it as exposed rock, which it surely is or it would have been washed away.

And I think that is enough to justify this note. Something completely new next month, I promise.