

Environment Agency flooding update from David Hughes, Advisor, Partnership & Strategic Overview Team, West Midlands area (Email: david.hughes@environment-agency.gov.uk)

Hello Residents of Rolleston,

My name is Dave Hughes and I am working for the Environment Agency (EA) and looking specifically at the flooding problems being experienced by residents in Rolleston due to flooding from the local Main Rivers (namely the Rolleston Brook and the River Dove). A tender is going out in the near future for a new hydraulic model of the Rolleston Brook to be created. I am writing to bring you up to speed with our investigations and the proposed modelling of the Rolleston Brook

I have been involved in investigations of the flooding in the village previously; both when I previously worked for the EA and also when I worked for Staffordshire County Council. I have some previous reports of the problems that were reported from 2012. However, those reports cover a number of different locations and not all of them are related to the specific flooding from Main Rivers, (in fact most of them are not). I am happy to receive your comments about other flooding issues around the village and I will do my best to ensure that they get referred to the right authority.

But an EA team of specialists is currently investigating the flooding that originates from the Rolleston Brook. In the main, this causes regular flooding of the road Brookside at the bottom of the hill. In extreme events it causes flooding of properties from number 3 and downstream of that point. However, I am not sure exactly how many of these properties only experience flooding of gardens and drives and how many have suffered internal flooding into their buildings. I would appreciate any feedback you get back to me on your own flooding experiences. Your accounts help us to make the modelling much more accurate by calibrating the results. If you could also give me contact details for people we may not have spoken to yet, that would also be very helpful.

Previous correspondence and an examination of the gauging data in the area reveals that there are potentially two elements to the problem. Extremely heavy rainfall over the catchment, causes water levels to get very high in the Rolleston Brook. Typically these events take place over a shorter period of time, with levels going up and then down over a 4-5 hour period. Levels will seem to shoot up quickly at the start and very rapidly fall at the end. This correlates with some of the accounts sent in by residents.

The other major factor to influence the flooding is the level of water in the River Dove. Big events in the Dove will tend to happen over a 36-48 hour period and levels rise and fall more slowly. However, if there are high levels in the River Dove then water from the Dove can flood back up the Rolleston Brook channel all the way to the grounds of the Brookside Hotel. When that happens, it becomes more difficult for the Rolleston Brook to discharge, as the whole floodplain is already full of water. A bit like pouring buckets of water into an already overflowing bath. These kinds of events have been reported by residents as well.

The very worst events happen when these two types of events coincide with each other.

I have had a few site visits, one was to take photos and track the channel up through the village and also to look at the upper catchment of the river. One was a more detailed look at the Brook Hollows area. Another was to walk with local residents from Brookside and then downstream all the way to where the Rolleston Brook joins the River Dove.

The first main reason for these was to get a sense of what is happening on the ground, to feed into the detailed survey work that will be carried out to create a detailed picture of the Rolleston Brook channel and all of the most significant structures along its length. I walked the downstream channel with the residents who had raised concerns about debris and silt in that length and I was joined by an officer from our Asset Performance team who organise our maintenance works. Many areas were

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shown where vegetation was intruding into the channel, areas where debris can potentially get caught on existing structures and also areas where silt has built up. We pointed out at that time that the responsibility for maintenance of channels actually rests with the specific land owner in each case. Although the EA has carried out maintenance in the past, they are under no obligation to regularly desilt Main Rivers and do not have the levels of funding to do this.

However, we said we have no problem with land owners carrying out sensible watercourse maintenance themselves. Depending on what you are intending to do, you may not even need to submit applications to the EA for these works. Many activities only require you to register what you are intending on the EA website. I would be happy to talk anyone through the procedures to do this. I can also provide detailed advice on guidance on how to carry out dredging and clearance work in an environmentally friendly way. Unfortunately, some landowners have carried out works in the past that have harmed the environment and not even improved flood risk substantially. Please email me if you would like any advice on carrying out watercourse maintenance. As a result of the visit, our Asset Performance team did agree that silt probably needs to be removed at the end of Brookside where the river turns North alongside the old Brookside Hotel. Unfortunately, they do not have funding to carry out that work this financial year but will look at getting this done next financial year.

Looking at the upper catchment, revealed some areas where there may be opportunities to store water and only let it proceed downstream at a controlled rate that is unlikely to cause flooding. This could be in the form of engineered works or using more natural techniques known as Natural Flood Management (NFM). Features of that type would have to be agreed with the particular landowner/farmer in the upper catchment.

Another location where storage may be possible is at Brook Hollows. ESBC have managed to get funding to carry out improvement works to Brook Hollows. So I am speaking to them about the possibility of working with them, to use the lake to store water in a controlled way. But of course we also have to fit in with what ESBC and local residents want to achieve in the area.

Water has also been known to spill out onto the road from the end of Brook Hollows and out onto Burnside. Water can get deep here at the junction of Burnside, Brick Kiln Lane and Knowles Hill. There are also piped watercourses and other drainage that contributes to the problems at this location, so we will be looking in detail at this area. As far as I am aware, although these roads get badly flooded, the only property in this area that gets flooded via that route is the Rolleston Club on Burnside. If you know of other properties affected in that area, can you get back to me please?

As well as walk-throughs and talking with residents, we have been awaiting LIDAR survey data of the general area (aerial survey that gives ground levels). I have also obtained drawings and survey reports from Staffordshire County Council of all of the bridge structures along the route which they look after. We have attended web-meetings with the Parish, County Councillors, the local MP and residents. We're hoping that detailed survey of the channel and structures through the village will get underway next month.

I would ask for your patience regarding this problem. As well as this site I am also looking at another three locations with similar flooding problems around Staffordshire and of course Covid has introduced some delays and problems for the team. But we now seem to be moving forward with the modelling project and I will continue to talk to other parties with regard to potential improvements. Please do email me back with any questions and points that you wish to raise.

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