

GALGATE Flood Risk Management

July 2022 Briefing

This briefing has been created by the Environment Agency for the purpose of providing an update on the Flood Defence Realignment option we have been investigating.

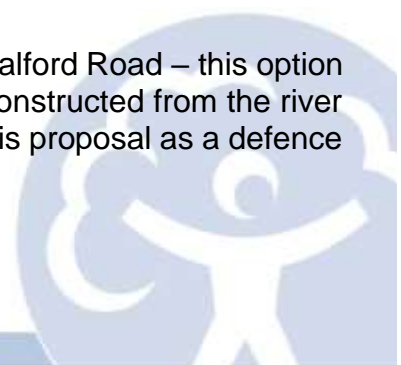
Following the flooding in November 2017, the Environment Agency carried out an appraisal of potential options to reduce flood risk in Galgate. Unfortunately, as previously communicated, all potential options were unviable due to the high costs associated with them.

The Environment Agency must therefore continue to inspect and maintain the existing flood defences as these are so important for the protection of Galgate against frequent flooding from the River Conder.

One option for better managing flood risk using the existing flood defences was to consider the removal of approximately 180m of the right bank (west) flood defence wall. It has been considered that by doing this, it would allow the field between the river and the railway line to flood from the River Conder more readily, providing additional flood plain storage so that homes on the opposite side would flood less frequently and less severely.



To offset any increase in flood risk further downstream – at Salford Road – this option would also require a new flood defence embankment to be constructed from the river towards the railway line embankment. We have referred to this proposal as a defence realignment option.



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We have been investigating the viability of the defence realignment option and have had to undertake new hydraulic modelling to inform the investigation. The modelling presented us with some unexpected results and after carrying out numerous checks we are now confident in our findings.

Investigation Results

The hydraulic modelling has shown that if we were to carry out the proposed defence realignment, then flood risk would actually **increase** to the majority of properties in Galgate.

During a flood event with the current defences in place there are two flooding mechanisms and flow paths from the River Conder:

1. Floodwater initially comes out of channel upstream of the A6 where the mill race was originally connected. It flows towards the A6 and passes underneath, through the mill race culvert, to the Wardfield Farm field. As floodwater collects in the field the post and panel flood defence prevents it re-entering the river and, when the level gets high enough, it flows south towards the properties on Salford Road, over Salford Road and back in to the River Conder downstream of Galgate Old Bridge.
2. If the river level continues to rise water will eventually overtop the left bank (east) defences and into the rear gardens/properties on Main Road.

Modelling has shown that in the defence realignment scenario, some of the floodwater currently held in the field is able to re-join the river channel, raising the water levels in the river. This reduces flood depths in the field and on Salford Road but increases them on Main Road.

Whilst this is not the outcome we hoped for, or expected, it is important that we carried out this investigation and modelling first. It has shown that such work would have actually increased flood risk.

What next?

On 27 July, the Environment Agency will be holding a virtual meeting (likely using Zoom) with the Galgate Flood Action Group and invite all residents to join us to discuss the findings of this investigation and take any further questions on this or flood risk management in general. Please contact Nick Fraser at nick.fraser@environment-agency.gov.uk if you wish to be forwarded the joining instructions.

