

Notes of Flood Response Working Group Meeting Held via Zoom 10th March 2021

Present.

Parish Council

John Bailey, Iain Keeping, Neil Matthews, Ann Wright (Clerk)

Old Mill Place Representatives

Peter Jones

Bolesworth Estate

Tom Wallbank

Cheshire West & Chester Council

Adam Ryder – Flood Risk Management & Project Officer

Cllr Mike Jones

Environment Agency (EA)

David Brown – Senior Advisor, Flood Risk Management

Claire Nicholls - Flood Resilience Advisor- Greater Manchester, Merseyside and Cheshire

Tattenhall Wildlife Group (TWiG) & Sandstone Ridge Trust

Andrew Hull

Other Interested Parties

Chris Evered, Janet Hollins.

Welcome & Introductions.

Apologies were received from Mr & Mrs Lavender who were unable to attend the meeting.

Notes

The group noted the notes of the meeting held on the 10th February and additional comments provided by Mrs Layfield and Andrew Hull, page 4 of the notes.

General Update

It was reported that the Chairman had met with representatives from EA on the 2nd March, notes from the meeting can be found page 6 of the notes.

The meeting had confirmed the Mill Brook was classed as main river and the Mill Race was an ordinary water course and that CW&C was the lead local flood authority and are responsible for producing Section 19 Report.

It was reported that a Section 19 report was required when there had been damage to properties and or disruption to businesses through flooding.

CW&C and EA have a duty to produce flood risk assessments and that these should already be in place and should be reviewed and amended over time.

It was noted the interim report was expected in the next 3 to 4 months.

The final Section 19 Report for the flooding in October 2019 in Northwich has only just been published, the interim report was published in November 2020.

CW&C was undertaking a debrief of the incident response and a form had been circulated to Parish Councils which had to be completed by the 11th March at noon.

Environment agency Update

David Brown provided the following update, he showed a map showing the various routes the water flowed into Old Mill Place noting the surface water was also an issue flowing from the direction of the junction with Tattenhall Road.

He confirmed the event or rain fall exceeded the capacity of the culverts and breached the dam.

He showed possible mitigation works to reduce the impact of flooding in the future which included raising the footpath at the read of Old Mill Place, raised earth works on the Mill Field adjacent to properties on Old Mill Place and flood gates.

It was noted water had also flowed into the mill Brook from the Flacca drains. It was reported that water had flowed past the Tattenhall Centre and had gone towards Covert Rise and also down the High Street to Old Mill Place. It was noted this had not happened previously when there was flooding in the village. Mr Brown confirmed that areas flooded and had running water in Cheshire where it had not occurred previously. It was highlighted that the downpour was not that heavy however because the ground was so waterlogged it had nowhere to drain to. Concerns were voiced about the water coming over the top of the dam and it was recognised the dam is holding back a huge amount of water, it was suggested the proposed earthworks should protect properties if the dam overflows in the future.

Mr Brown agreed to forward his drawing emphasizing these were only preliminary reports and were therefore subject to amendment page 8 of the notes.

Tattenhall Wildlife Group (TWiG) Update

Mr Hull reported that TWiG had been undertaking nature conservation and natural flood defense works upstream from the Mill Pond over a number of years.

Phase 1

A 'Leader' grant was used to create a chain of ponds parallel to the Mill Brook.

In 2016 in partnership with The Bolesworth Estate and EA works were undertaken to lower the bank of one side of the Mill Brook to create floodplain, to allow water to flow on to adjacent land during heavy rain to reduce the flow of water into the village.

A series of woody debris dams or leaky dams were created by volunteers. Since the project was completed in 2016 TWiG volunteers have continued to monitor the wildlife in the area and the flood events. The project has significantly reduced the amount of water flowing downstream.

Phase 2A

Sandstone Ridge Trust working in partnership with Reaseheath College, ELM Associates, Bolesworth Estate and EA are about to start a project on China Meadow which will incorporate 2 large earth bunds which hold water in the valley in the field again reducing the flow downstream during periods of heavy rain.

It is estimated that Phase 1 has the capacity to hold 1,000 cubic metres of water, Phase 2A will hold 5 to 10,000 cubic metres of water. Without the phase 1 works being undertaken the flooding in the village would have been significantly worse since 2016.

It was noted that the Mill Brook was straightened in the late 18th century to power the Mill however its original route through China Meadow is visible as such the works are following the natural route of the Mill Brook.

Mr Hull thanked the following for making the implementation of these works possible:

- Bolesworth Estate inc. Tom Wallbank
- Tenant Farmer
- EA
- ELM Associates
- Reaseheath College

Phase 2B

It was noted a grant application had been submitted for funding to undertake further works including tree planting, creation of ponds and woody dams further upstream as far as Harthill where the Mill Brook starts.

It was noted this grant if approved would provide funding for the tenant farmers whose land is taken out of production for scheme, currently farmers do not receive funding for these types of scheme but under the 2024 Agriculture Act will do.

It was discussed what area of land forms the catchment for the Mill Brook, it was estimated

that it is 12 to 15KM2, it was asked if the amount of water to be held back was adequate for the catchment area.

It was noted that this was the key question. It was stated that the Phase 1 and 2 works needed to be accompanied with other works in the village as previously suggested not instead of them. It was highlighted that the bunds on China Meadow would hold additional water back to the water which would be held back if no works are undertaken and as such it will reduce the water flow downstream. It was noted the earth works bunds are designed for their stability.

It was reported that there had been a significant land slip at Raw Head and increased tree planting should be pursued.

It was noted that once Phase 2A is completed that land will still be able to be farmed 90% of the time as there was a need to protect productive agricultural land.

Car Park Seepage

It was asked whether the issue of seepage from under the car park which is chronic issue on Old Mill Place will be considered at part of the section 19 Report. It was reported that this is resulting in flooding in cellars across the road from Old Mill Place and of the Barbour Institute.

It was noted there are 2 boreholes on Old Mill Place one of which has been capped and the other was used to supply water for soft drinks and to increased the flow Mill Brook when flow fell below the required levels for the sewerage treatment plant further downstream.

It was noted the seepage would be considered as part of the Section 19 Report.

Section 19 Report

A draft report for submission to CW&C for consideration as part of the Section 19 investigation had been circulated, Cllr Keeping confirmed he would update this to include the issue of seepage under the car park, it would then be circulate to the group for review and comment and would then be submitted to CW&C (Adam Ryder).

It was asked if the Section 19 investigations would look at surface water drains capacity given the amount of surface water from both direction of the High Street which flowed into Old Mill Place, Mr Ryder confirmed this would be taken into account.

It was reported that if all the road drains had been functioning it would have had a significant impact on the water levels as it was surprising how much water drained when a drain on Rocky Lane had been cleared.

It was noted that Keysbrook would not be included in the investigations as it did not meet the necessary criteria of damage to property which refers to internal habitable areas.

Future Meetings

It was agreed the next meeting would be held after the preliminary Section 19 Report is published unless further information is available before then.

NEXT MEETING
TBC

Ann Wright 11/03/2021

Additional information Received since publication of Notes of meeting on 10th February 2021.

Clarification from Mr& Mrs Layfield

- 1) When Barrett built these houses in OMP the drain construction was wrong (or insufficient) resulting in severe drain away problems in the severe flood of 2000. This was supposedly corrected at the time to the apparent satisfaction of the Chester Council.
- 2) When we first moved here (December 2003) the garden was very dry but rapidly became wet over a quite short period. I contacted Barrett concerning poor drainage and lack of weep holes in a retaining wall in the back garden at the back of the lawn and the Mill pond dam wall beyond. They visited, inspected garden and pond but we did not hear anything back from them. I contacted them again and was then told that their Chester office, who had supervised the build was closed and no longer their responsibility.
- 3) When our garden began to grow rushes, I contacted the Mill Pond owner to review the apparent seepage from the pond. As a result, he instructed a local builder to construct a clay dike to hold the water back.
- 4) Our garden remains wet, although the rushes have now gone. We strongly suspect there is an underlying problem, possibly a fracturing of the old field drain from the Flacca down to the Mill field to the millstream which we believe is routed under our garden and our neighbours. This clearly adds to the present flooding penetration as it occurred recently.

Clarification & Information from Twig

1. Under **'Membership'** '... *It was reported that the Bolesworth Estate had worked in partnership with the EA and tenant farmers to elevate the flood risk etc....*'. Naturally, this should read '*alleviate*' BUT there is no mention of TWiG who were one of the two partners etc.

For information - this was: Phase I of Slowing The Flow of the Mill Brook in 2016.

- The lead organisation of Phase I was The Environment Agency
- The partners of Phase I were Bolesworth Estate and Tattenhall Wildlife Group (TWiG)
- The project summary is listed below:

This was a habitat creation scheme which incorporated innovative, Natural Flood Management (NFM) techniques along 230m of Mill Brook, upstream of Tattenhall near Chester. This partnership project with the Bolesworth Estate and Tattenhall Wildlife Group created 1.5ha of priority reedbed and wet grassland habitats within a new excavated floodplain area. The project helps attenuate flood peaks and reduces risk downstream in Tattenhall. The North West Regional Flood and Coastal Committee allocated £13,500 of funding to this scheme from the North West 'Slowing the Flow' project.

- For further information/contextualisation and prior to this work in 2016, TWiG was successful in obtaining £19,000 in 2011 to interpret and manage the Mill Brook Wildlife Corridor. This money from the Northern Marches Leader Programme (Project Ref NM3064) included the excavation of a series of small ponds adjacent to the Mill Brook to the south of Jubilee Wood. These ponds formed part of the wider natural flood management techniques at that time. Cllr Doug Haynes was a member of the Leader Programme Team. This detail should be incorporated into the Notes to further contextualise work undertaken by TWiG in support of flood management within the village but receives no mention in the Notes.

2. Under **'Identification of Hazards'** - '*Concerns were raised that when planting took place upstream of wildflowers and trees that heavy plant machinery was used and that this may*

have damaged the land drains when undertaking the works'.

No idea who raised these concerns but for clarification, TWiG has an excellent working relationship with the EA and have, at all times, worked under their guidance and with the support of Bolesworth Estate.:

- 1200 trees were planted in 2012 creating Jubilee Wood - this tree-planting project led by TWiG included volunteers from the local community, Park Primary School, local scouts, guides, beavers etc. Planting of saplings took place by hand (no heavy plant machinery involved)
- Subsequent tree-planting events have taken place led by TWiG and adjacent to the Mill Brook post 2012 - reporting of which has appeared on Tattenhall Online/The Sandstone Ridge Website (2017/2019/2020)
 - <https://www.tattenhall.org/news/beavers-success-community-engagement-at-its-best.html>
 - <https://www.tattenhall.org/news/tree-planting-success-from-our-local-eco-warriors-in-community.html>
 - <https://www.sandstoneridge.org.uk/news/cubs-and-beavers-get-their-hands-dirty.html>
- Ironically the Parish Council actually part-funded some of these projects. These trees, all planted by volunteers, combine to reduce flood risk and 'slow the flow' (ie in the heart of the village). Since 2012, therefore, some 2000 trees have been planted by hand (no heavy plant machinery involved)
- In terms of the wildflowers that have been planted - ELM used a 'mini-digger' to agitate the top soil - this can hardly be described as 'heavy plant machinery'. Ironically the fracturing of flood drains can have a beneficial impact on flood risk because water from the drains simply flows out at the point of fracture and does not flow into the stream. That said, flood drains were not damaged during the above.

Notes of Meeting with Environment Agency Representatives & CW&C Held via Zoom 2nd March 2021

Present.

Parish Council

Iain Keeping, Ann Wright (Clerk)

Cheshire West & Chester Council

Adam Ryder – Flood Risk Management & Project Officer

Environment Agency (EA)

David Brown, Claire Nicholls.

(Apologies – CW&C Cllr Mike Jones)

Purpose of Meeting: To open discussions with EA and obtain background information.

Mr Brown reported that he had been in site at the end of January and had met with a landowner and a representative from TWiG.

He noted that during the 2021 flooding water had breached the dam from the mill pond and flowed into the Millfield out onto the High Street and into Old Mill Place, it had also overflowed at the rear of properties into Old Mill Place and the two culverts had surcharged. Surface water had entered Old Mill Place off the High Street from both directions.

It was noted that there is a large amount of local knowledge of the flooding which has happened on a number of occasions including before residential properties were built on the site.

It was confirmed this section of the Mill Brook is classified as a main river and is the responsibility of EA.

It was noted that there is a national strategy to address flood risk which includes a number of measures and policies. At a more local level there are flood risk management plans and flood risk maps, these are periodically reviewed and adjusted based on the information available at that time of review.

When Old Mill Place was last reviewed the flood risk was reduced for zone 3 to zone 2 (see attached map) which is lower risk. It was confirmed the rating and map would be subject to review.

Mitigation

It was noted Phase 1 of mitigation was undertaken with TWiG and has been completed, a second phase had been agreed but had stalled for a number of reasons, this is now being considered again and funding is still available for the project if it can be undertaken before the 31st March 2021.

It was noted the scale of the storm on the 20th January was unprecedented and resulted in flooding across Cheshire.

Drainage from Old Mill Place

It was suggested that there may be potential drainage issues on Old Mill Place which residents are concerned about relating to the location of the old mill race which is now piped and enters the Mill Brook further downstream.

It was asked what the status of this would be as it's not a main drain or a surface water drain. It was believed this would be classed as an ordinary watercourse.

Cllr Keeping confirmed he has plans showing the route of this drain, it is not known if it has

been blocked or damaged or whether it has the necessary capacity.
It was noted that where this flows into the Mil Brook that flow will be restricted if the level of the Mill Brook is above the outlet.
Mr Ryder confirmed this will be included in the investigation.

CW&C Section 19 Report

Mr Ryder confirmed the consultant has now been appointed by CW&C and is keen to begin work as soon as possible.

It was understood the consultant will collect information about the flooding which took place on the 20th January and will consider historic information as well as existing assets and infrastructure. The process will result in recommendations.

It was not clear at this stage how local input can be made into this process.

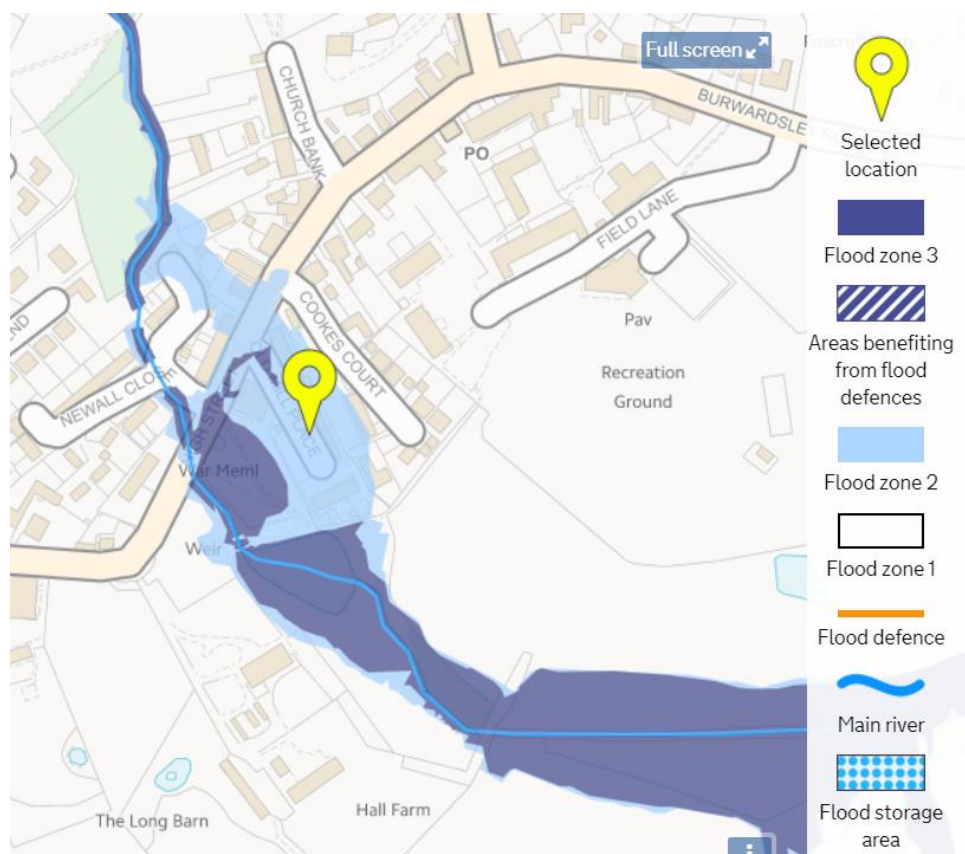
It was hoped that CW&C and EA would work together to resolve the flooding issues.

Mr Brown confirmed that James Orme (CW&C Highways) has undertaken a lot of investigative works of the drains and different watercourses in Tattenhall previously.

The representatives from EA confirmed they were happy to attend future meetings of the Working Group and agreed to attend the next meeting on the 10th March and provide an update.

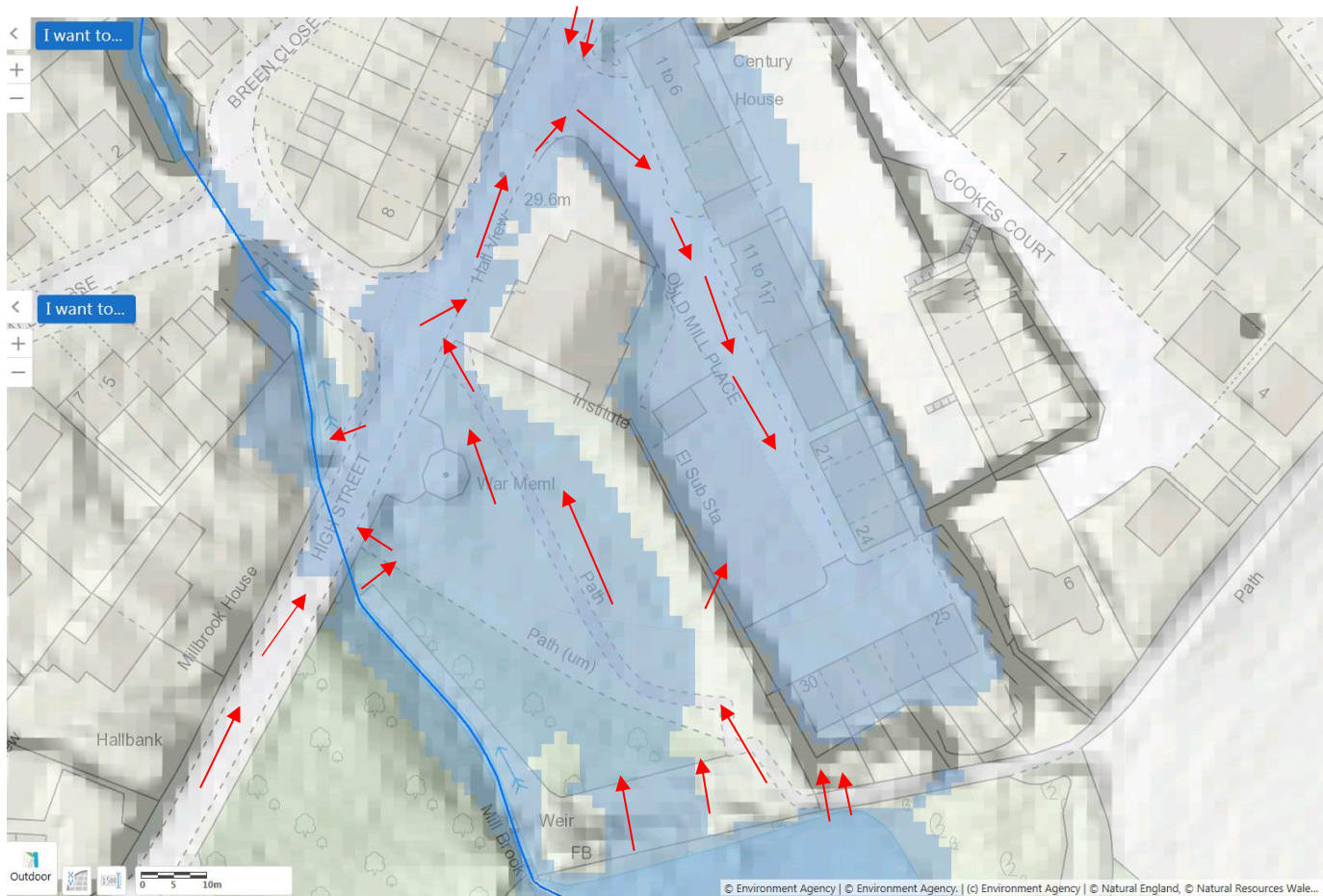
All were thanked for attending the meeting.

Flood Risk Management Map



[Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://flood-map-for-planning.service.gov.uk)

Jan 2021 post-flood observation



Red arrows = flood route.

Water over topped the Old Mill Pond dam, and affected properties in the back of old Mill Place.

Footpath raising along here, would prevent this flood route, although this would need to be done in conjunction with some minor ground raising between the park and old Mill Place.

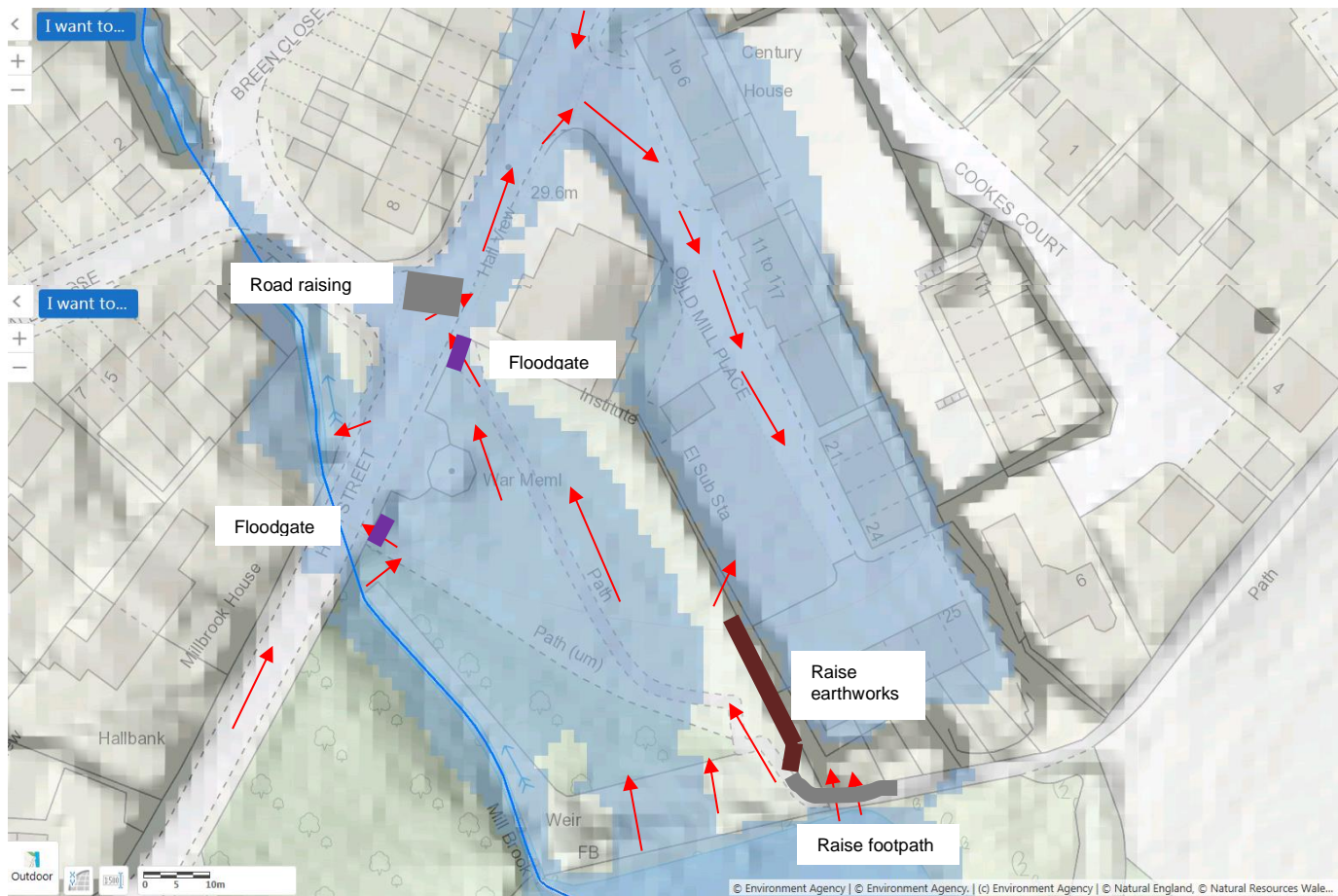
The main issue appears to be with the conveyance capacity of the culverts that take Mill Brook under the High street.

Downstream levels in Mill Brook were not observed to be limiting, although they were observed to be high.

The observed flood wrack shows back up in the war memorial park, spilling onto the high street and down into Old Mill Place. There was also a direct route over the dam.

Water exits on to the High street via the gap in the stone wall by the brook and via the gateway in the bottom corner of the memorial park. It then goes down the High Street, past the institute and flows down into the Old Mill Place low spot. Surface water also flows from the North down the High Street into Old Mill Place. Residents reported that on this event, surface water also flowed along High street from the south. Surface water exit from Old Mill Place is further hampered by the Old Mill race having been culverted and reportedly replaced with a 300 mm pipe. This will not aid the evacuation of surface water from this point.

Possible interventions
Upstream NFM
Localised ground raising



The fluvial route could be improved by containment in the park.

Raising of the footpath by the dam. This will be required, whatever the other solution, as there is direct overtopping from the dam to this point. Given the risks of dam fail, further raising of the dam is not an option.

This would need to be accompanied by earthworks downstream to contain the water within the park, and keep out a direct flood route from Old Mill Brook.

Further containment in the park is problematic as the walls are not to flood standards and may fail with more load on them. But the potential for earth raising round the park remains.

Road raising on the High street could have the same desired effect of containment.

This does not solve the surface water issue though, with water running down the road from the village centre from the north (and south) into Old Mill Place. Flooding could still occur from this route.

Although without the main river flows, these may be manageable.