

# Bathpool, Taunton

## Flood Risk Briefing Note

January 2017

This briefing note is intended to give an overview of the various flood risk management issues and activities affecting the Bathpool area of Taunton. Some of this information has already been provided to local residents in separate briefings. This briefing will be updated to reflect any future activities and/or changes to the flood risk situation in this location.

### History of flooding on the River Tone

- Following extensive flooding of Taunton in 1960, the River Tone was straightened in the late 1960's between Obridge and Bathpool, as part of the wider Tone Valley Flood Scheme. The photos below were taken around 1969, during construction of the scheme. Sections of the original river course were separated from the newly cut channel, particularly around the Bathpool Mills area (below left).



Upstream towards Obridge from Bathpool Bridge, A38



End of channel straightening works downstream of A38

- What remains of the original river course is now known as the Old River Tone. This runs behind properties along the A38 Bridgwater Road, under the road, and then around the rear of properties on Yew Tree Lane, before re-joining the main River Tone, via a flapped outfall structure south of the railway line. The Kingston Stream, Maiden Brook, Allen's Brook and Dyer's Brook all join the Old River Tone, contributing to natural watercourse flows through Bathpool. The catchment area drained by the Old River Tone outfall is just over 20 sq kms (around 5000 acres).
- When flood waters rise in the main River Tone, the resultant high water level causes the Old River Tone outfall flaps to close, and this then limits the escape of flood water from Bathpool. Without the flap gates in place, flood waters from the main River Tone would simply flow back up the course of the Old River Tone and cause flooding in Bathpool on a more frequent basis. Once the flap gates are closed or 'locked out', the Old River Tone begins to 'back up', and property flooding is possible in Bathpool depending on how long the outfall flaps are closed for and whether high flows are still coming into the Old River Tone from the tributary brooks and streams.

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08708 506 506

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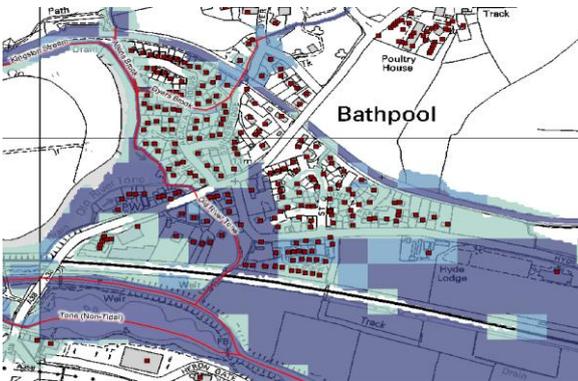
incident hotline

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floodline

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- Evidence from observed events, photographs and local media reports suggests that flooding in Bathpool has occurred more than 20 times since 1960. Not all of these events have involved internal property flooding, although many homes have been regularly inconvenienced by flooding of their gardens and road access points, and impeded foul drainage.



Risk of Flooding from Rivers map extract – Jan 2017



Flooding of road outside Acacia House, Bathpool



Flooding of road in Acacia Gardens housing estate



Flooding outside Swingbridge House, alongside the A38

### Community engagement to date

- Following significant property flooding in Bathpool in November/December 2012, a flood surgery event was held on 12 February 2013 at the Bathpool Methodist Chapel. The event was organised by us and West Monkton Parish Council (WMPC), and attended by over 70 residents/visitors. A host of issues were discussed.
- Some flooding issues are directly related to flows in the 'Main Rivers' – i.e. 'locking' of the Old River Tone when the River Tone is high and the limited volume available for flood water storage during an event (typically up to 20 hours+). This results in localised flooding around Acacia Gardens, Broomhay and Hyde Lane and Swingbridge – see photos above.
- Surface water runoff and flows in smaller ordinary watercourses also contributes to flooding and we have informed Somerset County Council (SCC) about these issues.
- Foul/combined sewer capacity issues also contribute to flooding and we have informed Wessex Water.
- Overspill water coming from the Bridgwater to Taunton canal was noted near Swingbridge in previous flood events and we have raised this with the Canals and Rivers Trust.

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## Historic Flood Risk Improvement works

- A small Flood Alleviation Scheme was built by Taunton Deane Borough Council (TDBC) in 2004 to protect two properties (Tapster Water and Watersmeet) from flooding by the Dyer's Brook.
- We carried out some improvement works at Bathpool following the winter 2012 flooding event. We replaced the old wooden flap gate outfalls on the Old River Tone with new lighter weight HDPE (plastic) flap valves in February 2013, as shown below:



Original Old River Tone wooden outfall flaps pre 2012



Current Old River Tone HDPE outfall flaps installed Feb 2013

## Winter 2016-17 flood contingency plans – Over-pumping strategy

- We are aware that there are growing community concerns about flood risk in Bathpool following recent flooding of property post-Storm Angus (Nov 2016).

In response to these concerns, we have recently produced a contingency plan to deploy a 10" mobile diesel pump on the upstream side of the railway bridge to 'over pump' water from the Old River Tone into the River Tone when the flap gates are closed. Our Field Team has positioned the pipework in the Old River Tone upstream of Walnut Tree Cottage and they successfully tested these pipes, together with the mobile pump in December 2016. The temporary installation is now complete and ready to run should it be required.

- This is a temporary measure for this winter (2016/17) which we would like to upgrade to a more permanent solution in the next financial year, subject to gaining funding approval. There won't be any telemetry or a river level gauge in place this winter to inform us when to start using the temporary pump, and we can't guarantee that this will prevent flooding if we get another major flood event similar to Nov/Dec 2012.
- For this approach to work this winter, we need input from the community. If local residents are concerned about high flows/water levels on the Old River Tone, Dyers Brook, Kingston Stream and Allen's Brook they should call our incident hotline telephone number: (0800 80 70 60). The service is free to use and is available 24 hours a day, 7 days a week.
- Our incident hotline operative will then call our local Flood Incident Duty Officer who will decide whether or not the mobile pump needs to be used. With the pipe work already in place, this operation is made easier and we will be able to react quicker to a flood event.

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## Taunton Strategic Flood Improvements Project

- Taunton Deane Borough Council (TDBC) and the Environment Agency (EA) are working closely together on the “Taunton Strategic Flood Risk Alleviation Improvements Scheme” to consider strategic long term flood risk reduction measures for Taunton, including the Bathpool area. The existing town centre flood defences, built in the late 1960s, and modified in the early 1990s, offer variable standards of protection and parts of them need repair and/or upgrading to ensure that they continue to afford protection to the town.
- Capita AECOM consultants started technical work for us and TDBC on the detailed options appraisal stage of the project in October 2016. The options being looked at are an upstream storage reservoir, improved town centre flood defences and modifications to French and Firepool weirs. A combination of these measures will need to be implemented to achieve an appropriate level of flood protection for Taunton in future years. Bathpool will be subject to its own discrete appraisal.
- Work to date has focused on data collection, reviewing the River Tone hydraulic model, drafting a communication and engagement strategy, and scoping site investigation surveys and planning requirements. Whilst Bathpool remains within the scope of the strategic project, earlier detailed appraisal work is so far focussed on upstream flood storage provision at Bradford on Tone. We envisage that the Bathpool appraisal phase will take place in summer 2017, and there will be more communication with the community nearer the time via a stakeholder working group.
- The project aims to define preferred options for flood risk reduction in early 2018, although delivery of any schemes on the ground is currently subject to funding being secured.

## Flood Modelling and Mapping updates

- In order to improve our understanding of flood risk throughout Taunton, we are re-modelling the northern tributaries of the Tone and integrating them into the existing River Tone model. The tributaries from Norton Fitzwarren to Bathpool will be added to the Tone model and this will increase the accuracy of the flood zone mapping around Bathpool.
- The model and mapping work is currently delayed but is due to be finalised in April 2017.

## Annual Maintenance

- We carry out an annual in-channel vegetation clearance of the Allen’s Brook, Dyer’s Brook, and the Old River Tone. This was last undertaken by us in autumn 2016.
- Typically, we hand cut branches and remove obstructions twice a year from the channel bed in accordance with the specification diagram below. We do this work to allow for better river conveyance, i.e. removing debris and obstructions from rivers so that water can flow more freely along the channel.

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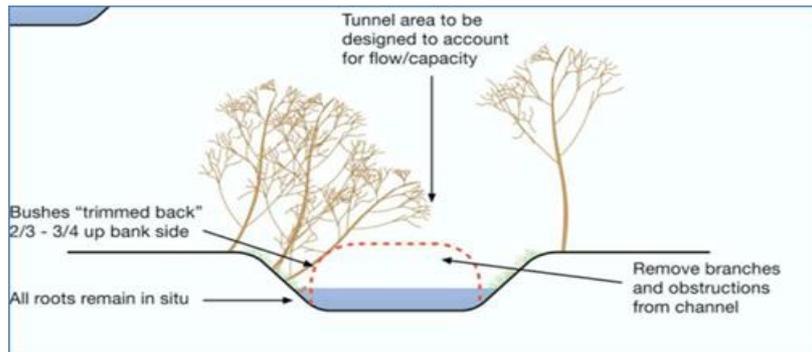
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- All waste is left on the river bank above high water mark, although where access allows, we can chip woody debris and leave wood chips on bank.
- We also carry out weekly operational checks to the Old River Tone outfall flaps in Bathpool. We look for any blockage or defects of the flaps, and when necessary, debris is removed and blockages are cleared on an ad-hoc basis

### Flood Warning service and proposed addition of telemetry

- During 2017, subject to funding, we hope to add a new telemetry station on the Old River Tone, near the flap valve outfalls into the River Tone. The ability to continuously monitor water levels at the outfall will allow us to better define any incident response e.g. temporary pumping, and potentially review the flood warning service provided to the Bathpool area.
- See below for further information on the existing flood warning service:

<https://flood-warning-information.service.gov.uk/target-area/112FWFTON30A>

If you have any feedback on the existing flood warning service, or would be interested in becoming a flood warden, we would be pleased to hear from you by email to the following address:

[wessexenquiries@environment-agency.gov.uk](mailto:wessexenquiries@environment-agency.gov.uk)

### Monkton Heathfield development proposals – Local Plan urban extensions

- Since April 2015, Local Planning Authorities such as TDBC only need to consult us regarding new development proposals located in Flood Zones 2 and 3 from the rivers and sea i.e. at direct risk of flooding. Our Flood Maps can be found online here:  
<http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683.0&y=355134.0&scale=1&layerGroups=default&ep=map&textonly=off&lang=e&topic=floodmap>
- For planning proposals located in the lower Flood Zone 1 designations, such as those at Monkton Heathfield, the Lead Local Flood Authority (LLFA – Somerset County Council) is now expected to provide comments to the Local Planning Authority (TDBC) on surface water runoff management from new development.

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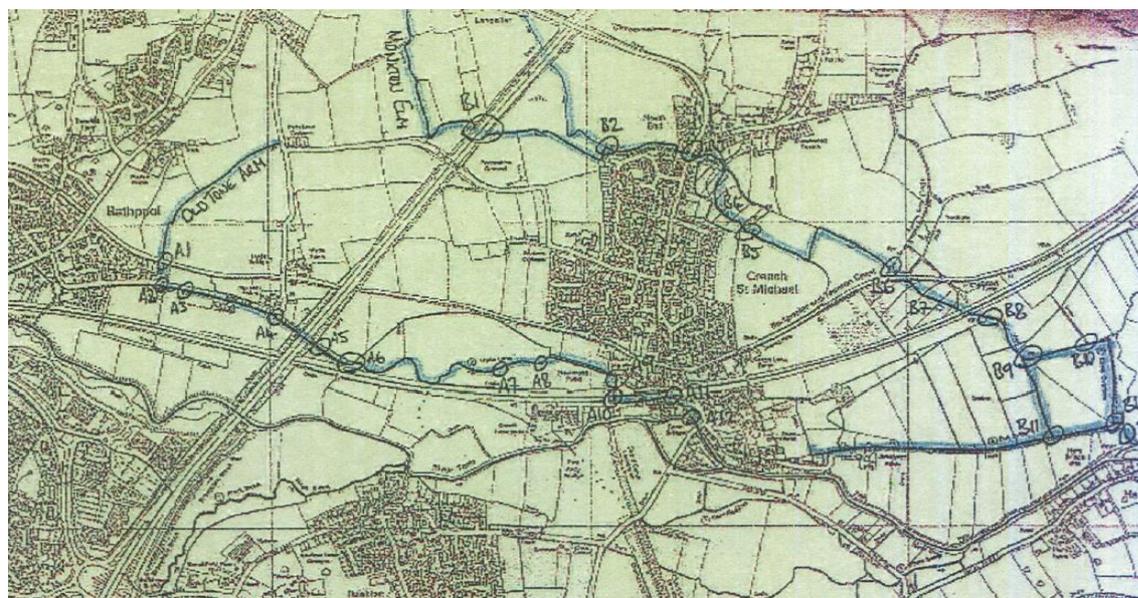
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- The LLFA typically advises developers to construct sustainable drainage systems (SuDs) to mimic pre-development 'greenfield' runoff rates so that run-off flows are appropriately controlled. This is to ensure that new development runoff does not exacerbate existing flooding problems nearby.
- Prior to April 2015, the Environment Agency was responsible for providing surface water management comments to the Local Planning Authority. Historically, we have worked with TDBC to ensure that appropriate flow control measures have been put in place for development near Bathpool e.g. Aginhill's Farm, Monkton Heathfield phase 1, and Farriers Green, etc.
- We have also ensured that where we know of development proposals that would contribute to flows in the watercourses running through Bathpool, the LLFA are now fully aware of the existing constraints and flooding history, and will pursue appropriate flow control measures from the developer(s).
- For example, we have recently advised TDBC and the LLFA that they should impose flow control measures and a section 106 legal agreement to contribute towards improvements at Bathpool, in the event that the Hartnell's Farm site planning application is renewed.
- As part of the first phase of the urban extension development at Monkton Heathfield, TDBC and ourselves secured a section 106 agreement with the development consortium to provide a sum of money (£98K) to carry out minor improvements to the watercourses shown in blue on the map below:



We would welcome any suggestions from landowners and the community as to what type of minor improvement works could be carried out, although we appreciate that this may have limited benefit to Bathpool owing to the location of the watercourses shown above, which predominantly fall in the Creech St. Michael Parish.

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