

Selly Park North and Selly Oak Flood Alleviation Scheme – December 2016

Background

There are over 150 homes at risk of flooding in Selly Park north and Selly Oak, with a significant number of these having flooded on Thursday 16th June 2016. This event followed a similar pattern to the previous flooding experienced in this area in September 2008, but was significantly larger in scale.

Whilst Selly Park north is situated on the left bank of the River Rea, the community flood primarily due to the Bourn Brook overtopping at Pershore Road (one of the main arterial routes into the city). Just upstream of the Pershore Road Bridge is the old Pebble Mill Sports and Social Club (a remnant of the old Pebble Mill BBC Television Centre). Historic modifications to the river and a constriction under the Pershore Road have resulted in the site flooding on a number of occasions, with flood waters then spilling onto the highway and into the Selly Park North community (Figure 1).

The Rea Catchment Partnership (a group of organisations seeking to deliver flood risk and environmental improvements across south Birmingham) has been working to deliver a flood alleviation scheme for the community and secure the funding needed.

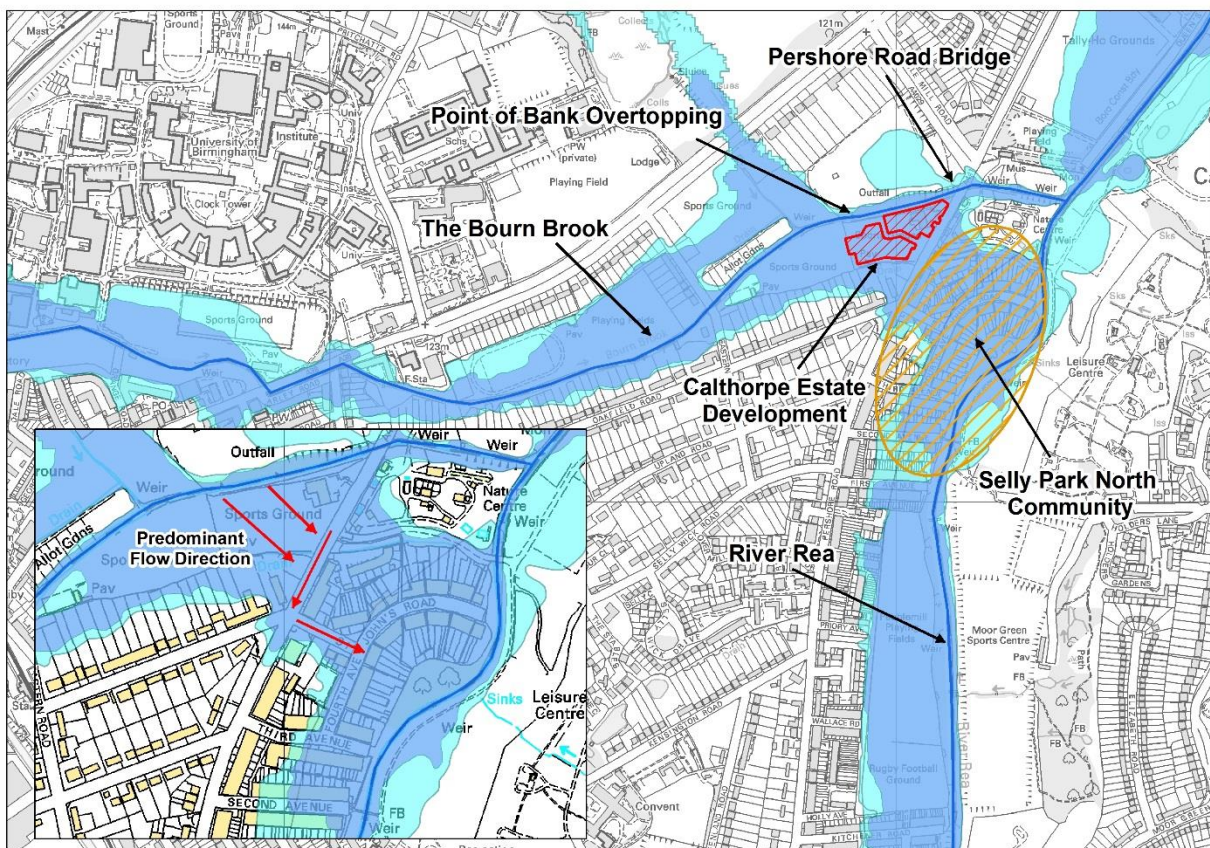


Figure 1 – Map showing key flooding mechanisms in Selly Park North

After a significant amount of detailed analysis, a number of consultants working on behalf of the Environment Agency, Calthorpe Estates and Birmingham City Council have developed a combined solution, consisting of upstream storage and downstream conveyance works. A flood risk scheme for this area has been rigorously appraised and assessed, with two Environment Agency framework contractors confirming

that the proposed scheme is the best option for managing flood risk in this area. Details of this scheme were approved as part of a hybrid planning application in October 2016.

Funding

Changes to government funding in 2011, mean most flood defence schemes attract a percentage of capital money relative to the benefits proposed. However, external funding must also be sought to secure government funds and reach the total required. The scheme that has been developed is currently estimated at £4.3 million. Partnership discussions have resulted in a significant proportion of the costs being taken on by Calthorpe Estates, with an agreement of around £2 million in kind and direct cash contributions. The contribution will be funded through development on the Pebble Mill Sports and Social Club site. Other public funding sources have been investigated but are not sufficient to close the identified funding gap.

Based on discussions with local planning officers, there are no other large developments earmarked within the Local Plan, in this catchment, that will be able to provide the funding required to deliver a scheme for the community of Selly Park north and Selly Oak. It should also be noted that the Pebble Mill site is integral to a flood risk management solution, with the development proposals being designed to enable the alleviation works.

Proposal

Upstream storage will be provided by enhancing an existing storage area at Harborne Lane. A series of habitat improvements will also be delivered, with areas of wetland and new planting being created.

The flow improvement works will be delivered on the Pebble Mill Sports and Social Club site prior to development (Figure 2). The works in this area will include the raising of land on two plots to ensure that future development is safely above the flood level. This will also create an overland flow route to direct flows to a new bypass culvert running underneath the Pershore Road. This arrangement will prevent flood water getting onto the highway and being routed towards the community.

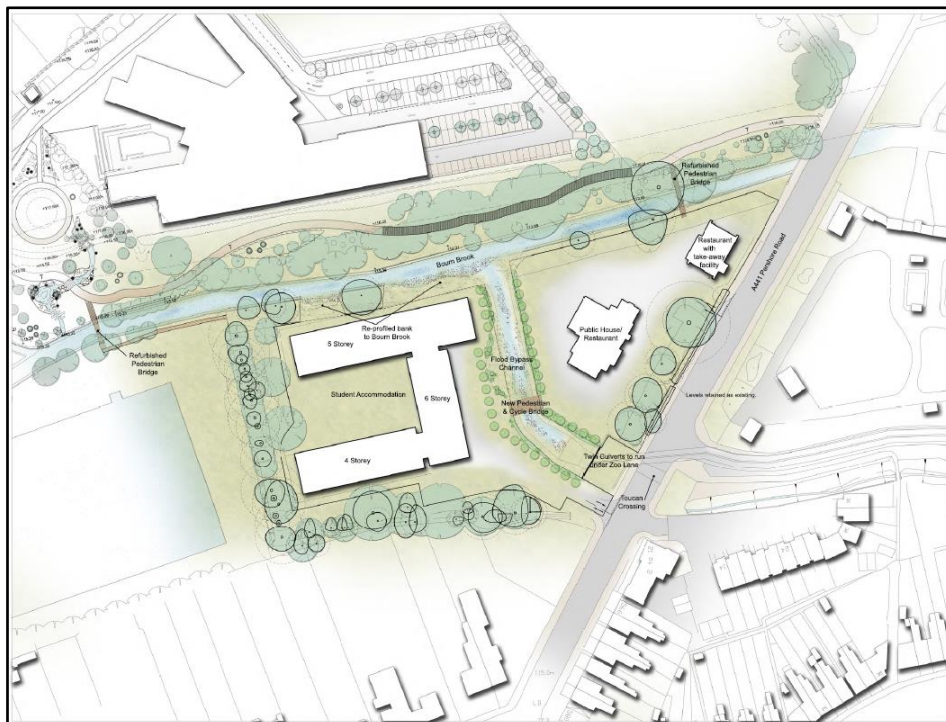


Figure 2 – Preliminary Outline Design for Pebble Mill Area

June 2016 Flood Event Analysis

Following the flood event on 16th June 2016, significant analysis has been undertaken to ensure that the computer model used as the basis for the flood alleviation plans is robust. The storm has been re-created based on local rain gauge records and then applied to the model to replicate the June event. Flood extents and depths have been verified.

The same event has been simulated with the flood alleviation proposals included, to ensure that the scheme would have prevented the spill of flood water from the Bourn Brook onto the Pershore Road and into the Avenues that ultimately resulted in flooding to properties. It should be noted that the flood alleviation scheme has been designed to deal with flood events larger than those witnessed in 2008 and 2016.

The use of highly detailed computer models is standard for both the assessment of flood risk and the design of alleviation schemes. The model in this location has been calibrated and verified against previous flood events and accurately reflects flooding dynamics in this area.

What Happens Now?

Planning permission for the scheme, and facilitating development, was received in October 2016, with detailed designs having now been completed. A business case has been submitted outlining all of the engineering, environmental and economic details of the scheme, which will be reviewed by the Environment Agency's Large Project Review Group (LPRG). Legal negotiations with all parties are also being finalised. The business case and finalised legal agreements are required to secure the funding needed for construction. If successful, it is hoped that construction of the scheme will commence early 2017, with a drop in event being run prior to construction to provide you with further details.

Should you wish to receive more information please feel free to visit our website www.reacatchmentpartnership.co.uk and use the "Contact Us" option. Alternatively feel free to contact the Environment Agency directly at Enquiries_Westmids@environment-agency.gov.uk