

Exceedance Event Analysis – Selly Park

The following plans provide an indication of the level of flood risk in events above the design standard of the proposed flood alleviation scheme.

As demonstrated in the “current flood risk” document, flooding to the Selly Park area is currently expected in all events larger than the 1 in 10 year return period event (I.e. an event with a 10% chance of occurring in any given year).

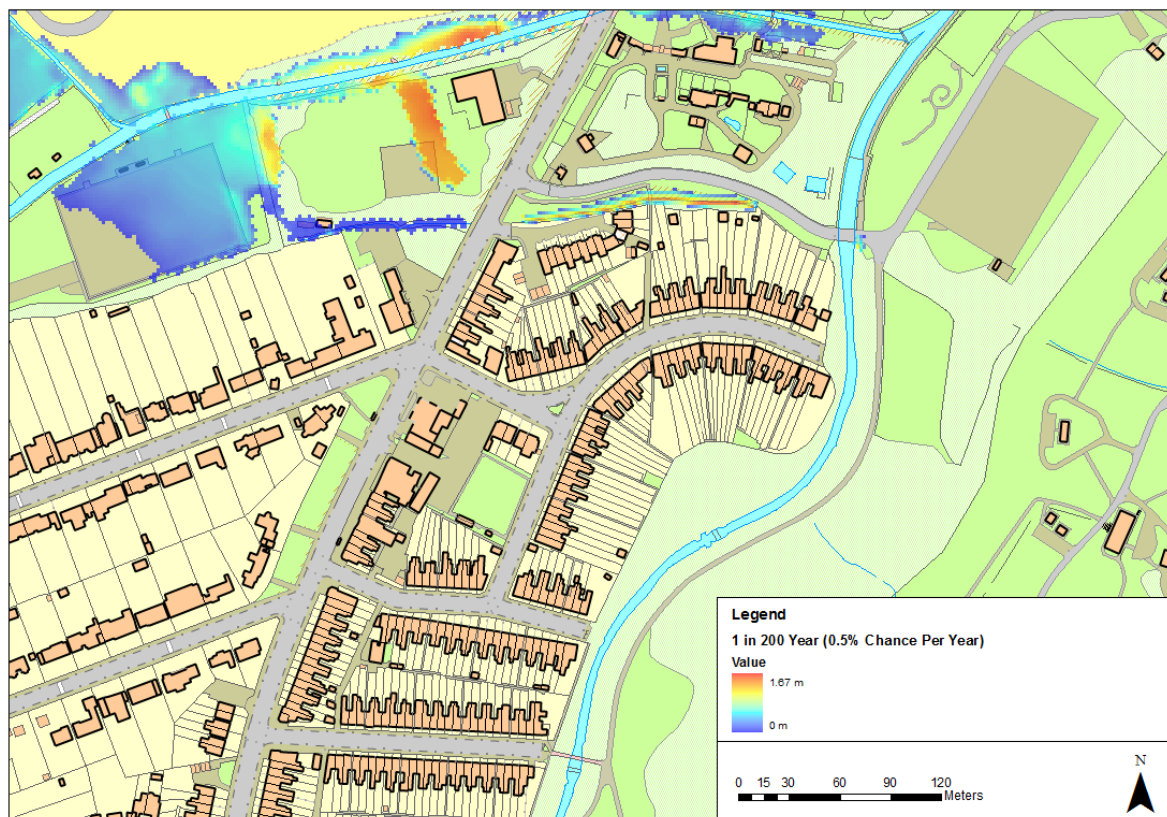
The scheme proposed will prevent flooding from the Bourn Brook in all return periods up to, and including, the 1 in 200 year event (I.e. an event with a 0.5% chance of occurring in any given year). This is consistent with the majority of flood alleviation schemes delivered nationally.

The flood alleviation scheme will still operate in events larger than this, resulting in reduced extents and depths of flooding. However, exceedance flows could pose a risk to the community. A series of large magnitude design flood events have been simulated to understand the extent of this risk.

Two depths are shown on each of the images below, including the deepest location of flooding, at the road junction. Depths at specific locations can be provided if requested.

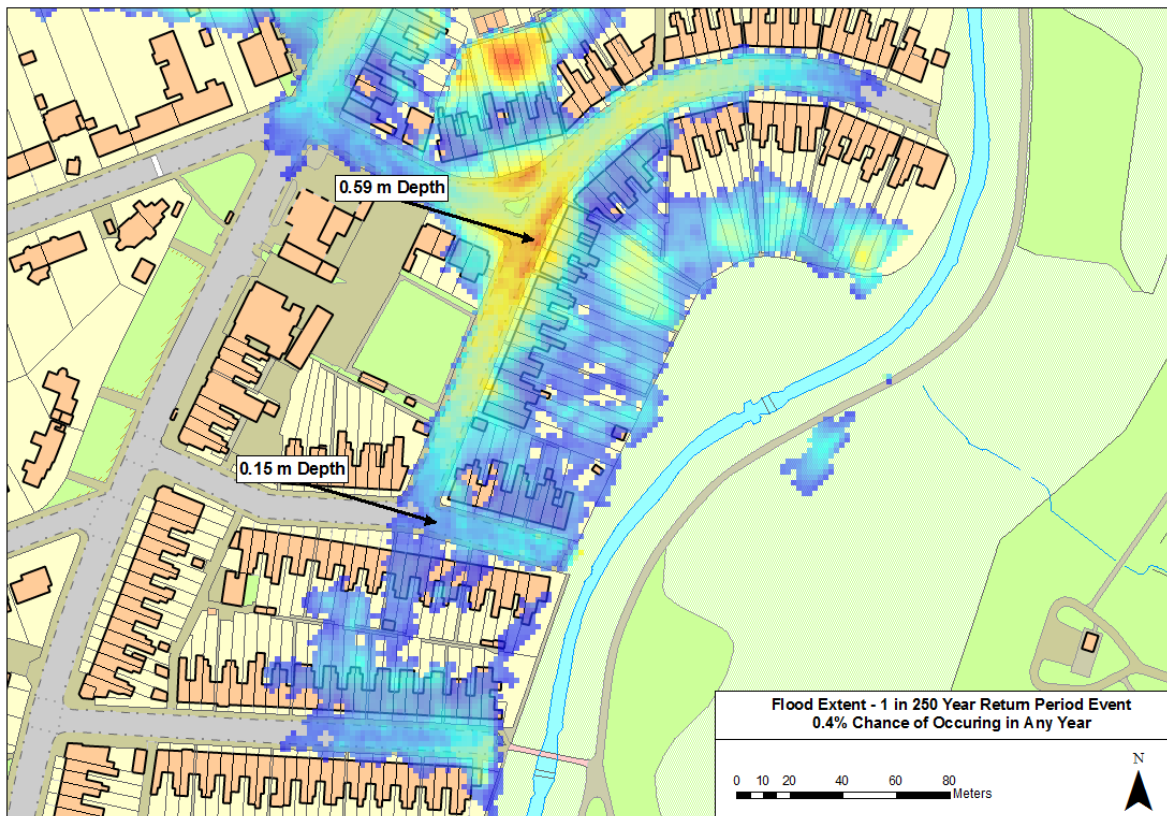
All of the scenarios in the below images assume that the proposed flood alleviation scheme is in place.

Return Period – 1 in 200 year event – I.e. an event with a 0.5% chance of occurring in any given year

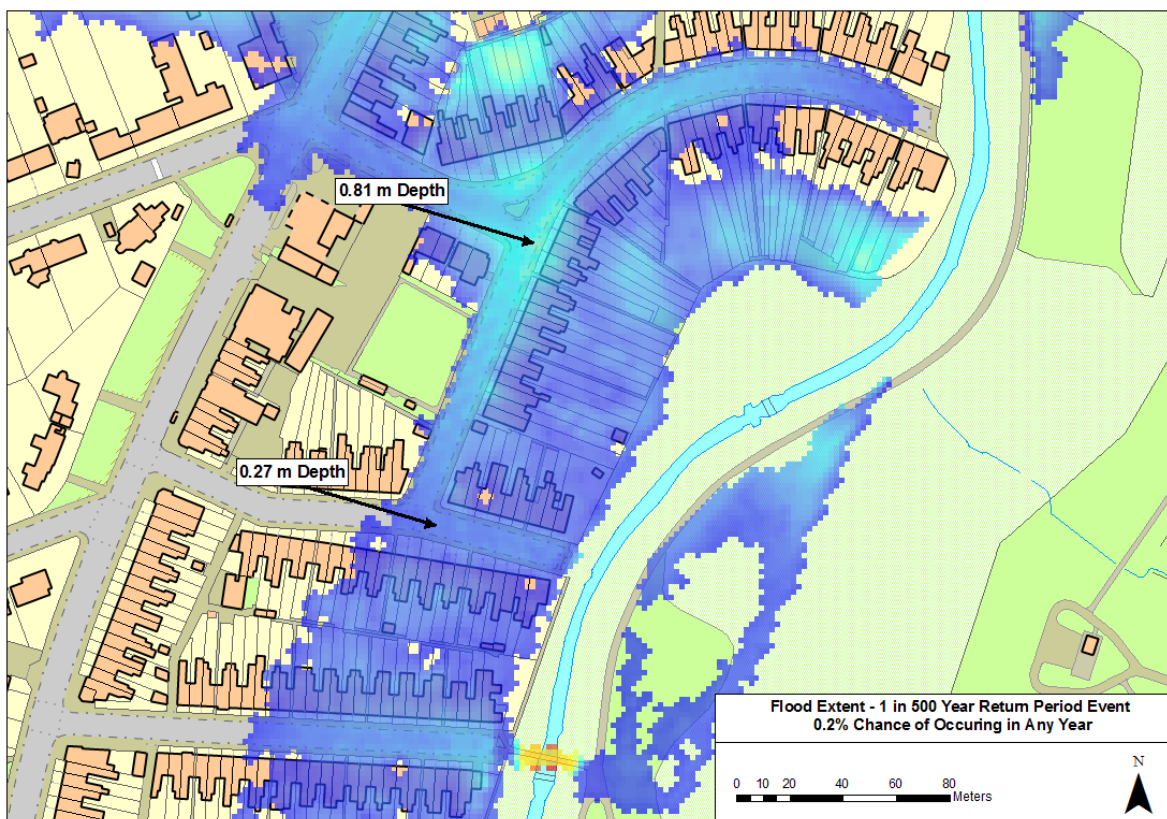


(Plots from the 10%, 5%, 2%, 1.33% & 1% design storm events show a similar extent, with no property flooding predicted)

Return Period – 1 in 250 year event – I.e. an event with a 0.4% chance of occurring in any given year.



Return Period – 1 in 500 year event – I.e. an event with a 0.2% chance of occurring in any given year.



Return Period – 1 in 750 year event – I.e. an event with a 0.13% chance of occurring in any given year.

