



5.2 Outline of methodology for identifying future floods and their consequences

The methodology for identifying future floods and their consequences within Derbyshire is outlined in the 'Flood Map for Surface Water Property Count Method' published by the Environment Agency and based on thresholds for what is considered to be of local Significant Harmful Consequence as discussed in "Section 4.2 - What are 'significant harmful consequences' and why".

Derbyshire has identified future flood risk in accordance with the 'Flood Map for Surface Water Property Count Method' guidelines published by the Environment Agency by making reference to all the Ordnance Survey MasterMap building outlines and comparing these with the Flood Maps for Surface Water. Where buildings either intersected with or were wholly contained within the polygons identified within Flood Maps for Surface Water these buildings were extracted into a separate layer / table. Using the building type attributes stored in the National Receptor Data (NRD) it was possible to identify three types of building; Dwellings, Critical Services and Non Residential Properties. These three categories were extracted to separate layers and each layer compared with the km grid squares enabling a count of the numbers of each building type in each grid square to be undertaken.

The category counts per km grid squares were compared to the local thresholds for Significant Harmful Consequence determined in "Section 4.2 - What are 'significant harmful consequences' and why" and where any one of the three categories; Dwellings, Critical Services and Non Residential Properties exceeded the threshold the km grid square was highlighted to show that there was a likelihood of Significant Harmful Consequence within the km grid square.

Urban

Number of Properties > 5

Critical Infrastructure > 1

Number of Non Residential Properties > 2

If any one of the above thresholds were exceeded then the km grid square was highlighted buff as shown in "Drawing No PFRA 05 - Future Surface Water Flood Risk – (Urban based on local threshold)" on page 33.

Rural



Number of Properties > 2

Critical Infrastructure > 1

Number of Non Residential Properties > 1

If any one of the above thresholds were exceeded then the km grid square was highlighted green in colour as seen in "Drawing No PFRA 05/01 - Future Surface Water Flood Risk – (Rural based on local threshold)" on page 34.

The two drawings, urban and rural, were combined to provide a County picture of Future Flooding likely to occur as a result of a 1 in 200 year chance event and a flood depth of

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300mm. This may include areas which are already prone to flooding and have a flood history known to the LLFA. In these areas flood risk may increase in the future.

Please refer to “Drawing No PFRA 05/2 - Future Surface Water Flood Risk – (Combined Urban and Rural Split)” on page 35.

Finally, an exercise was undertaken in order to identify areas where future flooding may occur, particularly where it is not identified within the current records of past flooding. The drawing of Historic Flood Events (Drg No PFRA 02) was combined with the drawing of Future Surface Water Flood Risk – Combined Urban and Rural Split (Drg No PFRA 05/2) to identify areas of flooding or future flooding that may not have been reported or may not yet have occurred, but can be identified. This will provide information to assist the councils Emergency Planning teams be more proactive in working with communities to develop an awareness of future risk.

Please refer to “Drawing No PFRA 06 - Predicted Areas of Surface Water Flooding based on Local Thresholds” on page 36.

