

# 1 Appendix Mapping: supporting information

## 1.1 Flood Zones

The data used to prepare the fluvial mapping for this study is based on Flood Zones and the results from hydraulic models either provided by the Environment Agency or prepared for the purposes of this Strategic Flood Risk Assessment (SFRA). Hydraulic models used include:

- River Blythe
- River Cole
- Cheswick Green.

### 1.1.1 Flood Zones 2 and 3a

Flood Zones 2 and 3a have been taken from the Environment Agency's Flood Zone 2 and 3, as shown on their Long term flood risk information [website](#).

### 1.1.2 Flood Zone 3b

Flood Zone 3b has been identified as land which would flood with an annual probability of 1 in 20 years (5% AEP). It has been derived from a combination of results from the Environment Agency detailed hydraulic models, 2014 Jflow+ modelling of the River Blythe undertaken for the Environment Agency, and additional 2D hydraulic modelling undertaken for this SFRA.

There may be some minor discrepancies between Flood Zone 3b and Flood Zone 3a in places as the 2014 Jflow+ modelling has not yet been used to update Environment Agency Flood Zones.

## 1.2 Climate change

The three climate change allowances for the '2080's were modelled by re-running the Environment Agency's detailed models of the River Cole and Cheswick Green and the 2014 Jflow+ modelling of the River Blythe.

Watercourses covered by Environment Agency Flood Zones but not by the models detailed above, were modelled for climate change as part of this SFRA using Jflow+.

The mapping provides a strategic assessment of climate change risk – developers should undertake detailed modelling of climate change allowances as part of a site specific FRA, following the guidance set out in the SFRA main report.

## 1.3 Surface Water

Mapping of surface water flood risk in Solihull Metropolitan Borough Council has been taken from the updated Flood Map for Surface Water (uFMfSW) published online by the Environment Agency.

Category	Definition
High	Flooding occurring as a result of rainfall with a greater than 1 in 30 chance in any given year (annual probability of flooding 3.3%)
Medium	Flooding occurring as a result of rainfall of between 1 in 100 (1%) and 1 in 30 (3.3%) chance in any given year.
Low	Flooding occurring as a result of rainfall of between 1 in 1,000 (0.1%) and 1 in 100 (1%) chance in any given year.
Very Low	Flooding occurring as a result of rainfall with less than 1 in 1,000 (0.1%) chance in any given year.

The uFMfSW is derived primarily from identifying topographical flow paths of existing watercourses or dry valleys that contain some isolated ponding locations in low lying areas.

Although the uFMfSW offers improvement on previously available datasets, the results should not be used to understand flood risk for individual properties. The results should be used for high level assessments such as SFRA's for local authorities. If a particular site is indicated in the Environment Agency mapping to be at risk from surface water flooding, a more detailed assessment should be considered to more accurately illustrate the flood risk at a site specific scale. Such an assessment will use the uFMfSW in partnership with other sources of local flooding information to confirm the presence of a surface water risk at that particular location.

## 1.4 Groundwater

Mapping of groundwater flood risk has been based on the Areas Susceptible to Groundwater (AStGW) dataset. The AStGW dataset is a strategic-scale map showing groundwater flood areas on a 1km square grid. It shows the proportion of each 1km grid square, where geological and hydrogeological conditions indicate that groundwater might emerge. It does not show the likelihood of groundwater flooding occurring and does not take account of the chance of flooding from groundwater rebound. This dataset covers a large area of land, and only isolated locations within the overall susceptible area are actually likely to suffer the consequences of groundwater flooding.

The AStGW data should be used only in combination with other information, for example local data or historical data. It should not be used as sole evidence for any specific flood risk management, land use planning or other decisions at any scale. However, the data can help to identify areas for assessment at a local scale where finer resolution datasets exist.

## 1.5 River networks

Main Rivers are represented by the Environment Agency's Statutory Main River layer. Ordinary Watercourses are represented by the Environment Agency's Detailed River Network Layer

## 1.6 Sewer and reservoir flooding

Due to licencing and confidentiality restrictions, sewer flooding data has not been represented on the mapping. Please see the main SFRA report for further information.