

Preliminary flood risk assessment: Stoke-on-Trent City Council

This addendum by Stoke-on-Trent City Council (2017) updates the council's preliminary flood risk assessment report published in 2011. Read the addendum in conjunction with the [preliminary assessment report](#).

Addendum

The preliminary flood risk assessment (PFRA) and flood risk areas (FRAs) for Stoke-on-Trent City Council were reviewed during 2017, using all relevant current flood risk data and information.

Changes to the assessment of risk since the preliminary assessment report was published in 2011 are described in the statements in this addendum.

Past flood risk

On 8th June 2016 a storm moving from the west-east, hit the central and southern parts of the city. The high intensity and duration of the rain showers caused the highway drainage and sewer systems to surcharge, resulting in high volumes of overland flows being directed to residential properties and a school building. The influence of nearby culverted watercourses, (to which these drainage systems discharge to), is also considered to be a contributing factor to the flood event. The storms caused significant internal damage to fixtures and fittings to both residential and non-residential properties, and resulted in residents being temporarily re-housed and a school closure. No local rainfall and observed RADAR data was available to assess the likely annual probability of the storm event, however, initial estimates suggest that the storm was near to a 1 in 50 year event.

On 16th June 2016 a storm mirroring that observed on the 8th June, hit the central and southern parts of the city again. The storm appeared to be of higher intensity and longer in duration than the preceding storm and resulted in greater volumes of overland flows being directed towards residential properties, a school building and a care home. The clean-up operation of the previous storm had only just been completed when storm arrived and caused additional internal damage and a closure to a local primary school. The observed mechanism of flooding was very similar to the storm event of the 8th June, and estimated to be of the magnitude of a 1 in 50 to a 1 in 100 year event.

On 13th September 2016 a storm moving from the north-south, hit the eastern side of the city. The high intensity and duration of the rain showers caused the highway drainage and sewer systems to surcharge, resulting in high volumes of overland flows being directed to residential properties and a number of school buildings. The influence of nearby culverted watercourses, (to which these drainage systems discharge to), is also considered to be a contributing factor to the flood event. The storms caused significant internal damage to fixtures and fittings to both residential and non-residential properties. No local rainfall and observed RADAR data was available to assess the likely annual probability of the storm events, but initial estimates suggest that the storm was near to a 1 in 50 year event.

Future flood risk

The primary source of flooding in Stoke-on-Trent was always understood to be from surface water runoff. The flooding incidents in 2016 validated this assumption and has also highlighted the interaction of flooding from local public sewer networks and culverted watercourses.

Flood risk areas (FRAs)

No FRAs have been identified in the Stoke-on-Trent local flood authority area for the purposes of the Flood Risk Regulations (2009) second planning cycle.

Other changes

The City Council formally adopted its Local Flood Risk Management Strategy in March 2016. The Strategy sets out the legislative background and the roles and responsibilities of all of those involved in local flood risk management in the city.

The Strategy identifies the various sources of flooding and provides an assessment of the local flood risk in Stoke-on-Trent. It sets clear objectives for managing and reducing flood risk, based on the current and future flood risks associated with climate change, regeneration and development.

Stoke-on-Trent City Council
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