

Preliminary flood risk assessment: Leeds City Council

This addendum by Leeds 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 **Leeds City Council** were reviewed during 2017, using all relevant current flood risk data and information.

Past flood risk

Leeds has suffered repeated flooding since 2011, in locations across the metropolitan district. In some areas such as the urban areas to the South-East of the city we have seen homes, businesses and infrastructure affected several times in consecutive years. This has highlighted that heavily developed urban areas face high probability flood risk of a complicated nature, with networks of drainage and sewer assets both above and below ground being heavily compromised by years of irresponsible development and alterations.

Equally the increasing pressures to further develop these areas to support both local and national growth drivers add to both the number of areas at risk and the frequency to which these areas are affected. Many of these flood incidents have shown that areas of Leeds are very susceptible to rapid surface water flooding largely caused by heavy and often unpredictable downpours. Widespread and extensive flooding as a result of Storm Eva in December 2015 showed how vulnerable both residential and business properties are to fluvial and pluvial risks in the city and that often the two types of flood risk are seldom seen in isolation meaning we must now always seek to look at reducing flood risk holistically and not look to find solutions to these risk types separately. Storm Eva also had major impacts on critical infrastructure such as sub-stations, telecoms servers and bridges such as Linton Bridge. This has also led us to develop catchment based schemes that look at a wider geographic area when assessing potential solutions for reducing flood risk in Leeds

Future flood risk

Leeds has benefited from improvements made to future flood risk information provided by the Environment Agency since 2011. Updates to the Flood Risk Map for Planning during this time have been a valuable tool in understanding fluvial flood risk across Leeds. A significant degree of confidence is given when utilising this information, as it correlates well with records of past floods in Leeds. In many cases the updated Flood Map for Surface Water (now RoFSW) does not provide the detail of flooding mechanisms that are evidenced by records of past floods. Often there is a recurrence of flooding from combined multiple sources, which requires catchment specific modelling investigations to improve the understanding of future flood risk.

Updates to hydraulic models in many of the catchments across Leeds have taken place since 2011 providing a much greater level of detail around not only fluvial risk but also its interaction with pluvial networks, further work by Yorkshire Water to map and model their networks in some parts of the city have and will continue to highlight risk areas and areas where interventions are needed due to the condition of important assets in these areas. Equally major changes to land-use and the redevelopment of large areas of the city such as the South Bank development and HS2 will bring new challenges when we look to make the city flood resilient.

Flood risk areas (FRAs)

The following FRAs have been identified for the purposes of the Flood Risk Regulations (2009) 2nd planning cycle. The identified FRAs are intended to be combined in order to present a single FRA for

- Leeds.

An illustration of the single FRA, as well as the FRAs listed above can be found on the maps overleaf.

| ID | Name of Flood Risk Area | NGR |
|----|---|--------------|
| 1 | Aire - Armley & Bramley Fall Catchment | SE2599734846 |
| 2 | Aire - Bagley Beck Catchment | SE2123134968 |
| 3 | Aire - Balm Beck Catchment | SE3063730615 |
| 4 | Aire - Burley & City Catchment | SE2817734858 |
| 5 | Aire - Calverley Catchment | SE2124637282 |
| 6 | Aire - Carr Beck Catchment | SE1904636237 |
| 7 | Aire - Guiseley Beck Catchment (Guiseley, Yeadon) | SE1978341209 |
| 8 | Aire - Hol Beck Catchment | SE2417230466 |
| 9 | Aire - Horsforth Catchment | SE2173737944 |
| 10 | Aire - Lady Beck Catchment | SE2815237435 |
| 11 | Aire - Lin Dyke Catchment (Kippax) | SE4142530356 |
| 12 | Aire - Mickletown Catchment | SE4060427165 |
| 13 | Aire - Oil Mill Beck Catchment | SE2421040101 |
| 14 | Aire - Oulton Beck Catchment (Woodleford) | SE3385226593 |
| 15 | Aire - Stourton & John O'Gaunts Catchment | SE3407629869 |
| 16 | Aire - Swillington & Allerton Bywater Catchment | SE4021529236 |
| 17 | Aire - Wyke Beck Catchment | SE3444034874 |
| 18 | Nidd - Broad Wath Catchment (Wetherby) | SE4179649400 |
| 19 | Wharfe - Boston Spa Catchment | SE4124746221 |
| 20 | Wharfe - Collingham Beck Catchment | SE3564542571 |
| 21 | Wharfe - North Otley Catchment | SE1970047242 |
| 22 | Wharfe - Otley Catchment | SE2073144968 |
| 23 | Wharfe - Pool Catchment | SE2488344515 |
| 24 | Wharfe - Wetherby Catchment | SE4101547461 |

Other changes

There are other no updates that Leeds City Council considers important in relation to the assessment of flood risk in their area.

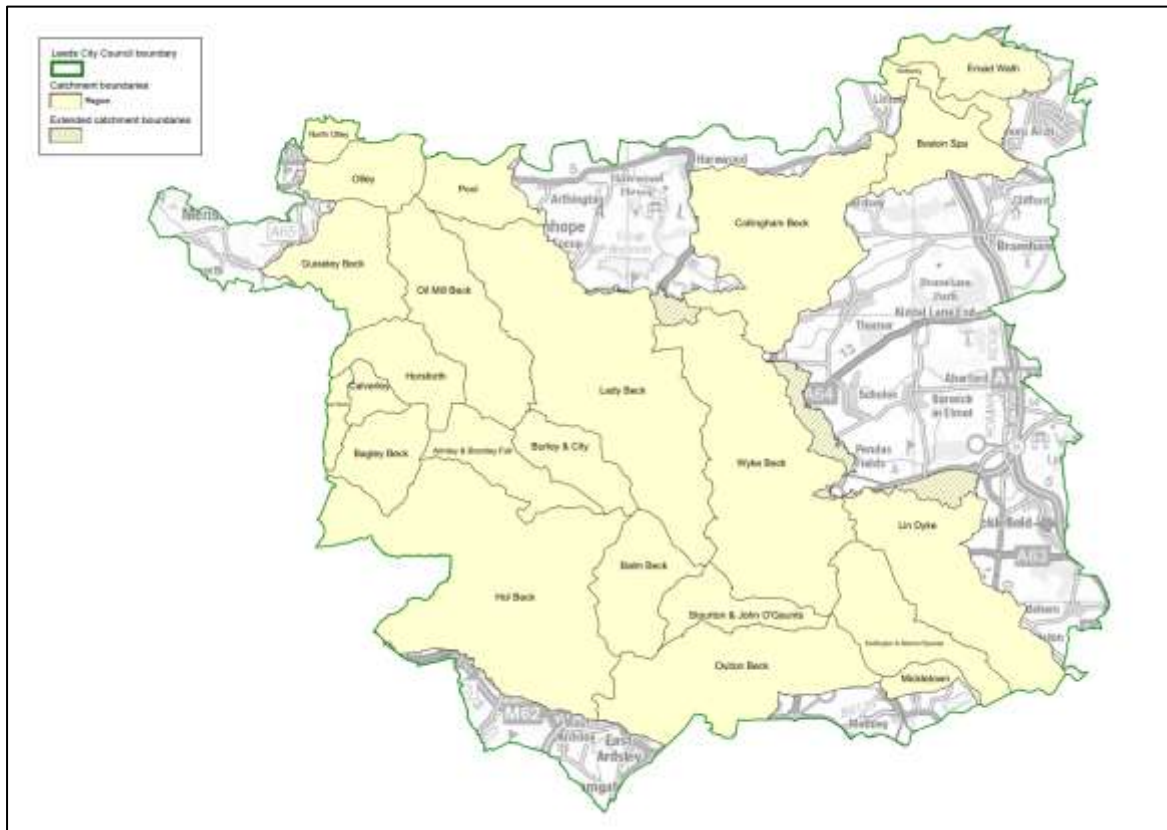
Leeds City Council

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Maps

Flood Risk Areas identified through catchment based approach



Leeds Flood Risk Area

