

Preliminary flood risk assessment: North East Lincolnshire Council

This addendum by North East Lincolnshire 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 North East Lincolnshire 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

Pluvial flooding events in 2012 and 2014 affected locations not previously thought to be at significant risk.

There were a number of intense summer rainfall events during this period and it was some of these that caused the flooding issues in 2012 and 2014 which wasn't the case for the 2007 floods.

The 2007 floods came about after a 10 day period of persistent rain with the 10th day bringing about the heaviest rainfall and a lot of the flooding was contributed to from fluvial sources. Also, a significant contributing factor to the 2007 floods was the lack of maintenance of land drainage and surface water drainage systems in a lot of the areas affected. Subsequent and continuing maintenance of these systems means the extent of flooding during an event similar to 2007 would be significantly reduced.

However, the 2012 and 2014 flooding was due to the overwhelming of drainage systems by intense summer rainfall events and was due to hydraulic inadequacy rather than lack of maintenance. Some maintenance issues were found and dealt with and these would have exacerbated the flooding at some locations but the overall conclusion was that the majority of the flooded locations will remain vulnerable to similar intense summer rainfall events unless appropriate flood risk management measures are put into place.

The Section 19¹ investigations highlighted contributing factors at different locations and provided evidence for possible mitigation measures. However, the main issue that came out of the flooding was the extent of the areas in Grimsby and Immingham that are served by drainage systems that can be overwhelmed by intense summer rainfall events.

It also raises the question of whether the standard of flood protection required by Anglian Water for their existing public sewer systems is adequate.

Also, as groundwater abstraction decreases due to the decline of industrial water abstraction in the area there is an emerging increasing risk from groundwater flooding that has become evident over the last two years. A representative from this LLFA sits on an Anglian Water Working Group that is looking at measures to reduce this risk.

¹ An investigation into a flooding event that a lead local flood authority (LLFA) is required to carry out under Section 19 of the [Flood and Water Management Act 2010](#), and according to [the LLFA's local flood risk management strategy](#)

Future flood risk

Pluvial flooding events in 2012 and 2014 affected locations not previously thought to be at significant risk.

There were a number of intense summer rainfall events during this period and it was some of these that caused the flooding issues in 2012 and 2014 by the overwhelming of drainage systems due to hydraulic inadequacy rather than lack of maintenance. Some maintenance issues were found and dealt with and these would have exacerbated the flooding at some locations but the overall conclusion was that the majority of the flooded locations will remain vulnerable to similar intense summer rainfall events.

The future climate change projections of drier summers but with periods of more intense rainfall will result in a significant increase in flood risk for parts of the Borough. It was these type of storms that highlighted the issues with the current level of flood risk.

There are already extensive areas in Grimsby and Immingham that are served by drainage systems that can be overwhelmed by intense summer rainfall events. Adjacent to these areas are others with similar ground levels and served by drainage systems with a similar hydraulic capability. The conclusion must be that the current climate change predictions will lead to a significant increase in numbers of property at risk.

Groundwater flooding is also becoming of increasing concern and will be more so as groundwater abstraction reduces. A Working Group has been formed comprising representatives from Anglian Water, Environment Agency and North East Lincolnshire Council. Its aim is to see what measures are necessary to manage the groundwater flooding threat.

Flood risk areas (FRAs)

No FRAs have been identified in the North East Lincolnshire lead local flood authority (LLFA) area for the purposes of the Flood Risk Regulations (2009) second planning cycle.

Other changes

None

**North East Lincolnshire Council
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