

Preliminary flood risk assessment: East Riding of Yorkshire Council

This addendum by East Riding of Yorkshire 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 East Riding of Yorkshire Council (ERYC) were reviewed during 2017, using all relevant current flood risk data and information.

Past flood risk

The original 2011 PFRA explained that as information on past flooding is of variable quality it is difficult to use specific test of 'significant harmful consequences'. Furthermore, because records of historic events rarely contained quantitative and spatial data they were unable to compare them to the Defra thresholds at the time. Therefore, ERYC decided instead to consider the language and descriptions as well as associated data in order to assess the significance of those recorded flooding events.

Since 2011, the council has seen numerous flooding events in the area. Data collection and capturing of records is much improved due to systems put in place by the risk management authorities in the area. As a result of this a more analytical approach is now taken when identifying significant harmful consequences and whether a formal investigation should be undertaken.

The Environment Agency guidance for this review advises lead local flood authorities (LLFAs) to include all events for which a subsequent investigation was undertaken under section 19¹ of the Flood and Water Management Act, in the updated Annexes. ERYC takes a proactive approach to flood investigations following flooding events and has set out its criteria for conducting flood investigations in Appendix C of its Local Flood Risk Management Strategy. Though the criteria has no specific thresholds it defines the points that should be considered by council officers and a procedure for that decision to be made, that would ultimately instigate the formal investigation. Fifteen Section 19 investigations have been carried out since 2011 and details of these can be found in the updated Annex 1 of the PFRA report.

The council's understanding of areas at significant risk has not changed due to the above flooding events. The risk in our area is substantial and this has been known and understood for some time, hence the council's approach of investing sizeable resource into flood risk management activities since 2011.

The events themselves however have led to the acceleration of flood risk mitigation schemes, as well as studies which allow us to better understand future flood risk moving forward. The data recorded from past floods allows us to ground truth and calibrate information and studies looking into the risk of flooding in the future. Information of known flow paths and identified risk areas evidenced in such studies have helped to determine the flood risk area (FRA).

Future flood risk

Since 2011 much work has been undertaken by ERYC. We have completed Annex 2 to show the information that is has been produced and is used to inform understanding of

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 risk. Unlike in 2011 where the majority of data was derived from Environment Agency surface water mapping, now the council has the most up to date information for much of the area. This is because we have taken a proactive approach to conducting studies and assessments into the risk in the East Riding. New information gives us a more detailed understanding of risk across the East Riding of Yorkshire, allowing us to develop mitigation schemes with our partner risk management authorities in the area.

These studies include the suite of Flood Risk Management Plans (*FRMP*) that are currently being produced for the 15 hydraulic catchments in the East Riding. The development of each plan includes producing a hydraulic model which highlights the risk of the catchment and allows us to model mitigation measures. The Hull and Haltemprice Flood Risk Management Plan has been completed as part of the last PFRA cycle. It focussed on the agreed FRA and fully integrated model and outputs were produced. This is currently being replicated for the rest of the administrative area with a number of the modelling studies completed this year. The rest of the FRMPs will be completed and published over the coming years up to 2021. Details of the data produced are included in Annex 2.

The information from studies such as the Hull and Haltemprice FRMP allows us to develop flood alleviation schemes. The council has worked in partnership with both Hull City Council and the Environment Agency to reduce surface water risk to properties and businesses by developing a number of major alleviation schemes. These include the sizeable Haltemprice sister schemes that have a total value of around £55 million: Willerby and Derringham Flood Alleviation Scheme, Anlaby and East Ella Flood Alleviation Scheme and Cottingham and Orchard Park Flood Alleviation Schemes. The council also has a programme of minor schemes completed and ongoing which look to address areas of risk in many areas of the East Riding, from rural communities to town centres.

Though the PFRA does not deal with risk from tidal and main rivers many of the council studies have been developed with integrated approach to look at all sources of flooding. The largest of these partnership studies was the River Hull Integrated Catchment Strategy (RHICS). ERYC worked in partnership with the Environment Agency, Hull City Council, Yorkshire Water and Beverley and North Holderness Internal Drainage Board to develop a joint approach to flood risk management in the River Hull valley. The strategy was adopted in July 2015 and the detailed modelling information is of valuable use to all parties.

Although understanding the scale of the challenge the council is well organised to deal with climate change impacts. All ERYC schemes consider present and future baselines, with climate change allowances, as part of the modelling analysis. This information gives us a better understanding of risk in the area and allows us to build and construct schemes that provide a standard of protection that factors in climate change predictions. New Environment Agency data on predicted water level changes and surge tides as well as rainfall intensity has been taken in to account in these activities. Details of new data included in Annex 2. The Environment Agency themselves have undertaken studies in our area looking at tidal risk on the Humber and results are normally shared with ERYC. At this time the Environment Agency is leading on the Humber Comprehensive Review which will consider the latest projections for our area.

We take a proactive approach to understanding effects of development in the East Riding. As part of the council's ongoing catchment FRMP studies, the local plan allocations for development are considered to determine whether long term development could have effects on flood risk. These high level assessments will aid the understanding of the risk of new developments as new applications for sites are received by the council planning team. ERYC's Strategic Flood Risk Assessment was produced in 2011 and the council's forward planning team is currently working towards developing an update. However in 2015 a

surface water study of Goole was commissioned looking at potential development sites to inform the new Local Plan.

Further detail on ERYCs understanding of future risk can be found in the adopted Local Flood Risk Management Strategy.

Flood risk areas (FRAs)

The following FRAs have been identified for the purposes of the Flood Risk Regulations (2009) 2nd planning cycle:

- Kingston upon Hull and Haltemprice Flood Risk Area (as identified for the Flood Risk Regulations first cycle).

Other PFRA changes

Governance

Since publication of the PFRA in 2011, have there been any changes risk management authorities with responsibilities in the LLFA area. There are currently 14 Internal Drainage Boards (IDBs) whose districts fall entirely or partly within the East Riding. The council has supported a number of amalgamations of Internal Drainage Boards since 2011, these are:

Beverley and North Holderness IDB - formally two separate boards.

Ouse and Humber IDB - formally two separate boards.

South Holderness IDB - formally six boards.

Danvm Drainage Commissioners - formally two boards.

Furthermore, the operation and clerkship of a number of the IDBs has changed in recent years. For example, the council's Infrastructure and Facilities service has taken on the operation of a number of the smaller IDBs in the Goole area and Beverley and North Holderness IDB is now administered by the York Consortium of Drainage Boards.

Elsewhere, 2.2 of the PFRA 2011 details ERYC's communication with partners and the public and the formal arrangements of meetings and boards. Section 5 of ERYC's [Local Flood Risk Management Strategy](#) (LFRMS) updates this information and details how decisions are made at present. The next review of the LFRMS is due before December 2021.

**East Riding of Yorkshire Council
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