

Environment, Development and Transport Committee

Item No.

Report title:	Update on the Preliminary Flood Risk Assessment
Date of meeting:	Wednesday 21 June 2017
Responsible Chief Officer:	Tom McCabe – Executive Director, Community and Environmental Services

Strategic impact

Under the Flood Risk Regulations 2009, and in line with responsibilities under the Flood and Water Management Act 2010, Norfolk County Council as Lead Local Flood Authority (LLFA) is responsible for undertaking a Preliminary Flood Risk Assessment (PFRA), and subsequent reviews, for local sources of flood risk, primarily from surface run-off, groundwater and ordinary watercourses. The first round of PFRAs was completed in 2011.

The draft PFRA review, initiated in February 2017, will be submitted to Environment Agency (EA) on 22 June 2017. The EA will then publish all PFRA reviews and Flood Risk Areas by 22 December 2017.

Executive summary

The PFRA process provides a nationally consistent high level overview of the concentrations of risk of flooding from local sources such as surface run-off, groundwater and ordinary water courses. Past flood events and mapping of potential future flooding are analysed to highlight the areas of significant flood risk.

Flood risk mapping has been updated and refined since the first round of PFRAs and national guidance on the criteria for identifying indicative Flood Risk Areas has changed considerably. Due to these changes, Defra has identified an indicative Flood Risk Area (FRA) in the urban area of Norwich, where surface water flooding could affect over 3,000 properties.

It must be noted that the level of risk to people and property within the indicative Flood Risk Area has not increased. The review highlights areas to allocate and prioritise funding to reduce food risk.

Recommendations:

Members are asked to approve:

- a. the submission of the draft Preliminary Flood Risk Assessment Review as set out in Appendix A**
- b. the identification of a new indicative Flood Risk Area, with the recommendation that the Executive Director of Community and Environmental Services, in consultation with the Chair and Vice Chair, be delegated power to make minor amendments to the boundaries of that area if required.**
- c. delegate authority to the Executive Director of Community and Environmental Services in consultation with the Chair and Vice-Chair of the EDT Service Committee to make minor final amendments to the PFRA Review ahead of publication by the Environment Agency in December 2017.**

1. Evidence

- 1.1 In line with Defra guidance, the Environment Agency assessed all properties and critical services in Norfolk against flood risk mapping for surface run-off up to a 1:100 event.

The guidance has two methods:

- Where the flood risk could affect over 200 people, 20 non-residential properties or 2 critical services within a 1km square it is deemed to have met the national impact criteria. Indicative Flood Risk Areas are identified where there are at least 5 overlapping squares meeting the criteria in a 3 x 3km square grid (cluster method)

and/or

- Indicative Flood Risk Areas are identified where there are more than 3000 properties at risk within a built up area (BUA) (communities at risk method).

Through this assessment, Defra propose to identify the Norwich Urban Area as an indicative Flood Risk Area.

- 1.2 Officers carried out a review of the Environment Agency data using local property counts and including the flood risk mapping for ordinary watercourses up to a 1:100 event.

Through this review clusters of risk were identified in Norwich, Great Yarmouth, Thetford and Attleborough as well as the community at risk in the urban area of Norwich.

It is not proposed to identify Great Yarmouth, Thetford and Attleborough as new indicative Flood Risk Areas as the scale of risk to people and property in these settlements is comparatively low when compared to Norwich.

Settlement	Residential Properties	Non Resident Properties	Key Services	Total
Norwich	9,323	1,731	92	11,146
Great Yarmouth	1,649	391	21	2,061
Thetford	880	142	12	1,034
Attleborough	418	49	5	472

Please see Appendix B - Future Flood Risk Settlement Ranking

2.3 Flood Risk Areas

Flood hazard maps and flood risk maps must be reviewed for the indicative Flood Risk Areas, when agreed, to further investigate the risk of flooding.

Officers are proposing to review the existing flood hazard maps and flood risk maps prepared as part of the Norwich Urban Area Surface Water Management Plan and surface water risk mapping prepared by the Environment Agency for the area.

Flood risk management plans must then be developed for these areas with the objective of reducing the probability and/or consequences of flooding.

It is proposed to review and update the Norwich Urban Area Surface Water

Management Plan to reflect the requirements of the Flood Risk Regulations 2009 and improvements to the drainage network completed since 2011. NCC Officers will work with the Environment Agency to agree a proportionate approach that does not create unnecessary burden or costs for any parties.

The Local Flood Risk Management Strategy will be updated to reflect any relevant changes recommended by the review.

This review must be completed by 22 June 2021.

2. Issues, risks and innovation

2.1 Guidance for the PFRA review was received by NCC in February 2017 and further information was provided in March and April 2017. Due to these timescales this report could not be provided at an earlier committee date.

2.2 If the LLFA disagrees with the identification of a Flood Risk Area by the Environment Agency, the matter must be referred to the Secretary of State.

2.3 In 2010 Norwich was identified as one of the top 50 candidate areas outside London to receive Defra SWMP funding, based upon broad-scale national predictive surface water modelling that suggested that approximately 6,500 properties may be at risk from surface water flooding.

The Norwich SWMP commenced in September 2010 and was adopted by the Council in May 2012. Modelling was undertaken for the entire urban area of Norwich and detailed modelling was carried out for the three areas most at risk.

Further work on the Norwich SWMP (completed in November 2014) provided more accurate data on Critical Drainage Catchments and cost benefit analyses of the flood protection measures. This information has helped our understanding of the range and scale of effective mitigation measures which has fed into bids for funding.

£10.3 million is currently being spent by Norfolk County Council's highways department to provide a new system of drainage infrastructure to improve surface water management in the Norwich urban area (specifically Hellesdon, Costessey, Old Catton, Taverham, Drayton, Sprowston and Thorpe St Andrew). The improvements are in response to the rainfall events that affected homes and businesses between May and August 2014 and led to 80 properties being flooded internally, some on a number of occasions. The new drainage systems are designed to deal with a 1 in 10 rainfall event. The council has invested £1.2m and successfully bid for £9.1m from the Department for Transport to fund the improvement work, which is due to be completed by March 2018.

3. Background

Norfolk County Council completed the first PFRA Report in 2011. This assessment used earlier and coarser flood risk mapping data up to a 1:200 event. For this reason the figures of properties at risk differ significantly from the report to the review.

The criteria for the first round of indicative Flood Risk Areas was set at 30,000 people at risk within a cluster where risk is most concentrated. 10 areas were selected that met this criteria. These were: London, West Midlands, Greater Manchester, Liverpool, Kingston upon Hull, Basildon, Bristol, Brighton & Hove, Leicester and Chatham & Gillingham. No indicative Flood Risk Areas were identified in Norfolk in 2011.

The 2017 review of the PFRA uses the 2013 Risk of Flooding from Surface

Water mapping and the Risk of Flooding from Rivers and Seas, where it related to ordinary watercourses, up to a 1:100 event.

The criteria in the review of indicative Flood Risk Areas is set at 3000 properties at risk in a built up area or where there is a cluster of 5 overlapping 1km squares of concentrated risk within a 3 x 3km square grid. 60 areas have been identified by the Environment Agency as indicative Flood Risk Areas across the country, including the Norwich urban area.

Officer Contact

If you have any questions about matters contained in this paper or want to see copies of any assessments, eg equality impact assessment, please get in touch with:

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