

Review of the 2011 Preliminary Flood Risk Assessment (PFRA)

Report of: Cllr Ian Dalgarno, Executive Member for Community Services,
Email: ian.dalgarno@centralbedfordshire.gov.uk

Responsible Director: Jason Longhurst, Director of Regeneration and Business
Email: Jason.Longhurst@centralbedfordshire.gov.uk

This report relates to a Key Issue

Purpose of this report

1. To ensure Central Bedfordshire Council is satisfied it has met its statutory requirements under regulation 14(3) of the Flood Risk Regulations 2009.
2. To ensure the Council's assessment and review of Flood Risk Areas previously identified in 2011 is appropriate.

RECOMMENDATIONS

The Committee is asked to:

1. **note and approve the main findings of the Preliminary Flood Risk Assessment review so it may be submitted to the Environment Agency by the statutory deadline 22 June 2017.**

Overview and Scrutiny Comments/Recommendations

3. The item was considered at Overview and Scrutiny Committee on 25 May 2017. The report's findings were endorsed and recommended for approval by the Executive.

Executive summary

4. The Flood Risk Regulations 2009 require that Preliminary Flood Risk Assessments (PFRAs) are reviewed and updated every six years. This is a statutory duty imposed on all upper tier and unitary authorities.
5. In summary, the PFRA is a high level screening exercise that involves collecting information on past (historic) and future (potential) floods, assembling this into a report, and using it to identify areas with an increased risk of flooding from local sources. These areas are known as 'Flood Risk Areas'.
6. Local sources of flooding are defined by the Flood and Water Management Act 2010 as surface water, ordinary watercourses and ground water. Under the Act, the management of local sources at a strategic level is the responsibility of the Council as Lead Local Flood Authority for its area.
7. Central Bedfordshire Council (CBC) undertook the first PFRA in 2011 in partnership with the Internal Drainage Board, Milton Keynes Council and Bedford Borough Council. No Flood Risk Areas were identified as part of the 2011 exercise. The Council is now required to complete its first review of the PFRA by 22 June 2017.
8. The review has been undertaken using the standard self-assessment form and addendum template provided by the Environment Agency. It is not necessary for the Council to revise or write a new PFRA report subsequent to completing these. The addendum shall be published online as an update to the 2011 report and is provided in Appendix 1, the self-assessment form may be provided upon request.
9. The criteria set by the Environment Agency to determine Flood Risk Areas has been lowered for the second planning cycle, subsequently one flood risk area has been identified as part of the 2017 review.
10. The criteria for Flood Risk Areas aims to identify some of the largest settlements in the country that may be at risk (see table 1 of the guidance note, January 2017¹), meaning not all areas in Central Bedfordshire that are known to have been affected in the past by flooding will have been identified. The Council as Lead Local Flood Authority is currently investigating a number of local flood incidents and will continue to address these through alternative duties and powers to the PFRA process.

¹ *Review of preliminary flood risk assessments (Flood Risk Regulations 2009): guidance for Lead Local Flood Authorities in England* (Environment Agency. January 2017).

11. The Environment Agency must check all PFRA updates to ensure these meet the European reporting requirements and is responsible for reporting relevant information to the European Commission by 22 December 2017.
12. DEFRA has been explicit that the United Kingdom's proposed exit from the EU will not alter the requirement to review PFRAs by 22 June 2017, as the UK will still be a full member of the EU at that point. The Flood Risk Regulations are also part of English legislation and still stand until and unless they are removed or changed after an EU exit.
13. Please note that the PFRA is a strategic document intended to co-ordinate a national approach to flood risk by prioritising areas for further examination. The information in the PFRA is not suitable to assess risk to individual properties and should not be used for insurance or other valuation purposes.

Overview of the findings of the 2011 PFRA

14. The 2011 PFRA analysed local and nationally available data to:
 - Describe past floods and the potential for harmful consequences of future floods (from surface water, groundwater and ordinary watercourses).
 - Determine if there was significant flood risk within Central Bedfordshire, any area where 30,000 people or more were identified at risk from surface water flooding was to be identified as a Flood Risk Area.
15. No Flood Risk Areas were identified in 2011 within Central Bedfordshire Council, Bedford Borough or Milton Keynes. The report did identify a high risk of flooding from local sources across Central Bedfordshire, particularly from surface water.
16. Based on national surface water modelling, approximately 10,000 properties across Central Bedfordshire were estimated, at the time, to be at risk from flooding to a depth of 0.3m during a rainfall event with a 1 in 200 annual chance of occurring.
17. The outcomes of the 2011 PFRA informed the Council's Local Flood Risk Management Strategy, adopted 2014. The Strategy identifies areas of high, medium and low flood risk at the Parish level and uses this categorisation to make recommendations and target actions to reduce risk.

Main findings of the 2017 PFRA review

18. The criteria to determine a Flood Risk Area has changed since the 2011 exercise, set out in the 2017 guidance note. In summary, the threshold to trigger a Flood Risk Area has been lowered for the 2017 review.
19. Using the revised criteria the Environment Agency has identified and provided a set of 'indicative Flood Risk Areas' for local authorities to agree, propose amendments or challenge based on their local knowledge of flood risk in the area.
20. Two types of indicative Flood Risk Areas have been identified by the Environment Agency, these are:
 - Clusters: the Environment Agency divided the country into 1 km squares and used national surface water mapping to identify any square which exceeded the criteria for significant risk (i.e. 200 or more properties at risk of surface water flooding from a rainfall event with a 1 in 100 chance of occurring in any one year). An indicative Flood Risk Area is then formed wherever, within a 3x3 km square grid, there are at least 5 squares that meet the criteria. Multiple grids that meet this requirement will often overlap, in this case overlapping grids are unified to form a larger cluster. All clusters, large and small are identified as indicative Flood Risk Areas.
 - Communities at Risk: indicative Flood Risk Areas are identified wherever 3,000 or more reportable properties (residential and non-residential) at risk within a built-up area (BUA) or built-up area sub-division (BUASD) as defined by the Office for National Statistics.
21. Guidance states that where there is overlap between the two methodologies, the indicative Flood Risk Area is the total extent of the two areas combined.
22. One indicative Flood Risk Area has been identified in Central Bedfordshire by the Environment Agency, see Figure 1. This is made up of areas identified by the cluster method and the communities at risk methodology.
23. Following an assessment of the indicative Flood Risk Area in light of local knowledge, CBC is proposing a minor amendment to the outline of the Flood Risk Area. This approach is set out in detail below.

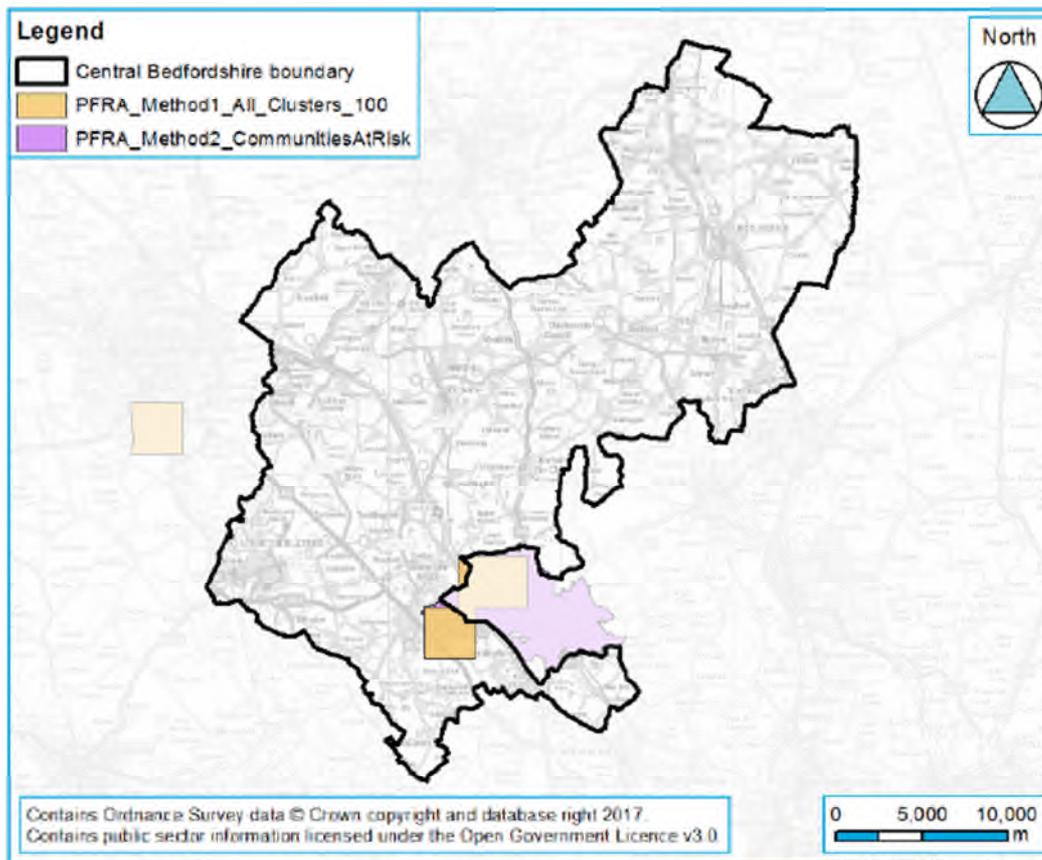


Figure 1 Indicative Flood Risk Area in Central Bedfordshire

Proposed amendments to the indicative Flood Risk Area

24. It is evident that there are areas of the indicative Flood Risk Area that only fall marginally within the Central Bedfordshire boundary (shaded red in Figure 2). The communities at risk methodology does not show these areas to be at risk and instead shows the risk to follow and fall within the Luton Borough Council administrative boundary. It is therefore proposed to remove these areas (shaded in red in Figure 2).
25. The Flood Risk Area then partially covers the parishes listed below.
 - Chalton
 - Houghton Regis
 - Kensworth
 - Dunstable
 - Caddington
26. None of the above parishes were identified through the development of the Council's Local Flood Risk Management Strategy as high risk.

27. However, flooding in Dunstable in June 2016 did trigger a formal investigation by CBC as the Lead Local Flood Authority under the Flood and Water Management Act 2010. This was due to a number of properties and critical infrastructure affected by surface water flooding.
28. It is therefore recommended that the indicative Flood Risk Area is modified to exclude all parish boundaries apart from Dunstable i.e. exclude areas shaded red and orange within Figure 2.

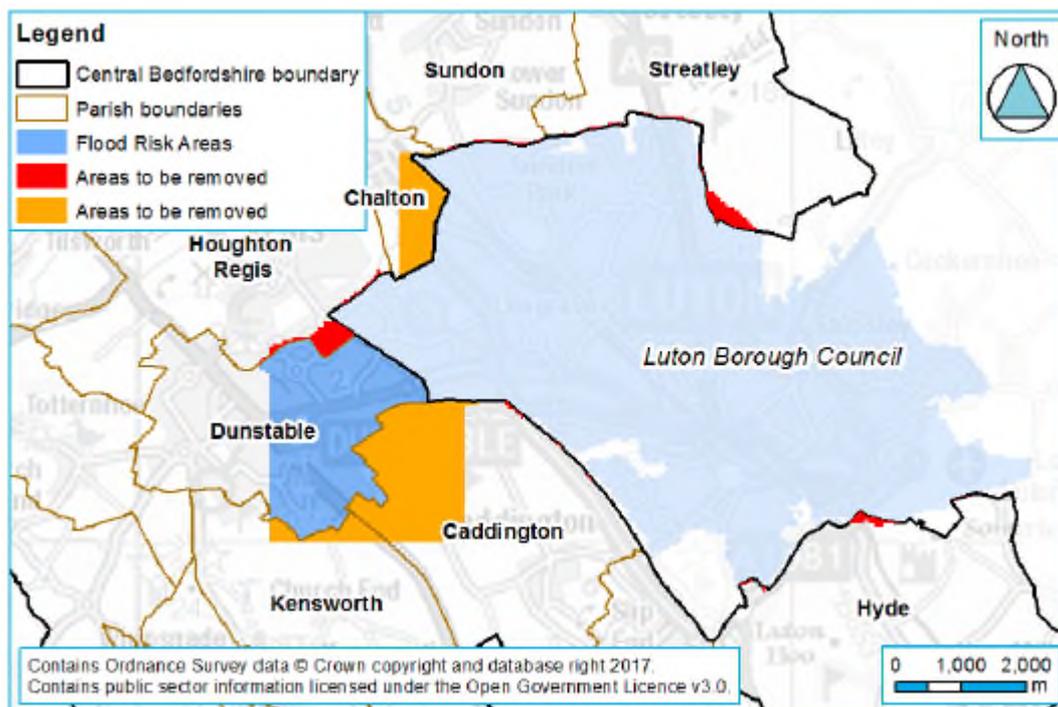


Figure 2 Areas to be removed from the indicative Flood Risk Area

29. The locations where flooding occurred in Dunstable in June 2016, as reported in the Council's published investigation report, are summarised on Figure 3. It is proposed the Flood Risk Area be extended to cover the whole of the Dunstable parish as indicated by the shaded green area in Figure 3, based on the Council's local knowledge of flood risk. This will ensure a more holistic approach to the management of flood risk going forward and best represent flood risk identified at the national and local scales. The PFRA is not to be used to determine flood risk to individual properties and there will not be an impact on residents.
30. The proposed modified Flood Risk Area is shown in Figure 3. CBC has consulted with the Environment Agency and Luton Borough Council on the revised outline and all parties have supported this approach.

31. The Executive is asked to note the proposed amendment and approve this.

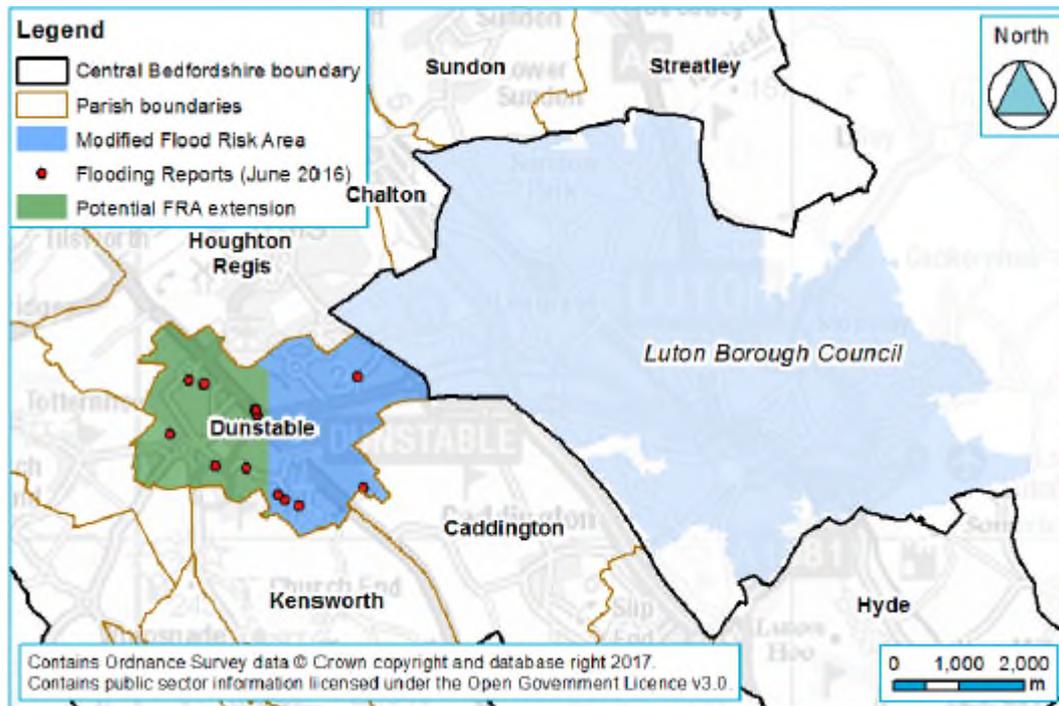


Figure 3 Final modified Flood Risk Area within Central Bedfordshire area

Implications of the 2017 PFRA review going forward

32. For any Flood Risk Area identified in the 2017 review, the Council will have a statutory duty to prepare the following, in partnership with the Environment Agency:
 - 'Flood Hazard and Risk Maps' by December 2019.
 - A 'Flood Risk Management Plan' (FRMP) by December 2021, setting out measures for the Flood Risk Areas for the period 2021-2027.
33. Outside of Flood Risk Areas there is no further requirements upon the Council as a result of the PFRA review.
34. During the first planning cycle, the Environment Agency prepared all maps for all sources of risk and led on preparing a single set of FRMPs at river basin district scale, incorporating local authority measures in many cases. This reduced the burden on local authorities.
35. For the second cycle, the Environment Agency is still considering how to deliver the later mapping and planning phases of the 2017 review. The Environment Agency intends to undertake full consultation with local authorities to agree the approach on how the maps and plans should be prepared for the second cycle without creating an excessive burden on local authorities.

Other considerations

36. The PFRA is not intended to be used to identify individual properties that may be at risk of flooding or provide details of where and when specific flood risk management works will be undertaken.
37. It is agreed between Risk Management Authorities that the findings of the PFRA are at too high a level to be used on an individual household basis to measure flood risk and therefore should not be used for insurance or other valuation purposes. It should be noted that insurers already have access to historic claims, national mapping and commercial products that they may use to identify flood risk information.
38. The determination of Flood Risk Areas is not intended to identify all flood risks to all properties, but rather to identify some of the largest settlements in the country that may be at local flood risk. Whether a property is in a Flood Risk Area or not is indicative more of the size of the settlement rather than the risk to any particular household. It is also important to remember that Flood Risk Areas only cover local sources of flood risk and not risks of flooding from rivers, the sea or reservoirs.
39. Current planning policy aims to prevent new development from increasing flood risk from surface water and, where reasonably practicable to achieve, to provide flood risk reduction/betterment. The findings of the PFRA do not place any additional burdens on the Council to address surface water flooding from new development beyond that already required by the National Planning Policy Framework (NPPF).
40. The Council as Lead Local Flood Authority is a statutory consultee to the Local Planning Authority on the surface water drainage provisions associated with major development². Planning applications for major developments should be accompanied by a site-specific drainage strategy to demonstrate the drainage scheme proposed complies with national and local policy. There is an expectation within the NPPF that sustainable surface water management is used on minor development as well as majors. The Lead Local Flood Authority uses local knowledge of flood risk in Central Bedfordshire to target advice provided on minor development applications.
41. Sufficient measures are therefore in place to manage the risks associated from new development in the proposed Flood Risk Area and it is considered that the results of the PFRA review will not place additional burdens on the Local Planning Authority, statutory consultees or planning applicants.

² Under Article 18 of the *Town and Country Planning (Development Management Procedure) (England) 2015 (the Development Management Procedure Order)*

Council Priorities

42. Flood events can have a significant impact on the health, welfare and economic viability of our communities and the environment in which residents live, work and travel. The review will better position the Council to improve the management of the likelihood and impact of flooding across Central Bedfordshire and in doing so directly contribute towards the Council's priorities, specifically; creating stronger communities and developing a more efficient and responsive Council to the risk and impacts of flooding.

Corporate Implications

43. There are not considered to be any significant legal, financial, or equalities implications.
44. There are not considered to be any additional implications for public health, community safety, sustainability, ICT, or procurement.

Legal Implications

45. The Regulations require the submission of the PFRA review by 22 June 2017. This is a statutory duty imposed upon the Council as Lead Local Flood Authority for its area.

Financial and Risk Implications

46. There should not be any immediate or significant financial implications arising from the PFRA review or identification of Flood Risk Areas within Central Bedfordshire.
47. The Council receives annual grant funding from DEFRA to deliver statutory duties for flood risk management and already has a comprehensive forward plan of actions outlined in its adopted Local Flood Risk Management Strategy to prioritise and guide spending. Any delivery of a strategy, scheme or works to manage flood risk in response to the PFRA review will be considered through the programmed annual review of the Strategy and subsequent investment plan for flood risk management.
48. The PFRA review will provide a robust evidence base to be used by the authority in future bids for external funding to deliver flood risk management solutions, such as the Local Levy raised through the Anglian (Central) Regional Flood and Coastal Committee and the Environment Agency's national Flood Defence Grant in Aid program.

49. Implementation of the Flood Risk Regulations is necessary to comply with the European Floods Directive and the Government would risk considerable infraction penalties in the event of non-compliance. There is a risk to the Council's reputation if it does not complete and submit the PFRA review in accordance with the required timetable. It would also miss a key opportunity to ensure the co-ordinated, prioritised and holistic approach to managing flood risk within Central Bedfordshire.

Equalities Implications

50. There are considered to be no equalities impacts in connection with the review of the PFRA.

Conclusion and next Steps

51. In summary, the 2017 review conducted by Central Bedfordshire Council has used the self-assessment form provided by the Environment Agency to:
- Demonstrate that appropriate flood risk data collection and management systems are in place in the area.
 - Summarise the main changes in understanding of risk for the area compared to 2011, and the primary reasons for those changes.
 - Update the statements of flood risk from the original preliminary assessment report to reflect the current understanding of risk for the area.
 - Update the annexes to the original preliminary assessment report to record any significant flood events since 2011 and to capture new information on potential future floods using the updated national data released by the Environment Agency since 2011. Significant flood events are those that have been formally investigated by CBC under Section 19 of the Flood and Water Management Act 2010.
 - Confirm the Flood Risk Areas for the second planning cycle.
 - Populate an addendum template, which will serve to update the preliminary assessment report and shall be published online (see Appendix 1).
52. The Executive is asked to endorse the review's findings so that it may be submitted to the Environment Agency by 22 June in order to fulfil the Council's statutory duty.
53. The Environment Agency will then assess the updated PFRA to check that the requirements of the Flood Risk Regulations have been met to protect against the risk of infraction proceedings and associated fines. The Environment Agency will then report to the European Commission.

54. If the Environment Agency does not agree with any conclusions or proposed changes to an indicative Flood Risk Area, they will discuss this with the Council concerned with a view to seeking consensus. If, however, there is still disagreement, the issue will be referred to the appropriate Regional Flood and Coastal Committee and, if necessary, to the Minister for a final decision. CBC has therefore taken additional steps to consult with the Environment Agency and Luton Borough Council on its proposed minor amendment to the Flood Risk Area within Central Bedfordshire and has received no objections.
55. The 2017 review is the first milestone in the process of developing the next generation of the Flood Hazard and Risk Maps by December 2019 and Flood Risk Management Plans by 2021, in partnership with the Environment Agency. Central Bedfordshire Council will continue to assist the Environment Agency with the development of these, as required by the Flood Risk Regulations.

Appendices

56. The following Appendix is attached/provided through an electronic link:
 - Appendix 1 – ADDENDUM: Update to the preliminary flood risk assessment report for Central Bedfordshire Council

Background Papers

Please also see:

- The 2011 PFRA Report for Central Bedfordshire (CBC, 2011):
 - [Preliminary Flood Risk Assessment 2011 document](#)
 - [Figure 5.3 - Flood Map for Surface Water in Central Bedfordshire - 1 in 200 Annual Chance](#)
 - [Figure 5.4 - Area Susceptible to Ground Water Flooding in Central Bedfordshire](#)
- [The Flood Risk Regulations](#) (2009)
- [The Flood and Water Management Act \(2010\)](#)
- [The Local Flood Risk Management Strategy](#) (CBC, 2014)
- [Review of preliminary flood risk assessments \(Flood Risk Regulations 2009\): guidance for lead local flood authorities in England](#) (Environment Agency, January 2017)

Lead Officer - Peter Keates, Head of Development & Regulation.

Email: Peter.Keates@centralbedfordshire.gov.uk