

Report of the Director of City Strategy

City of York Council – Strategic Flood Risk Assessment Update

Summary

1. This report advises Members on the updated Strategic Flood Risk Assessment (SFRA) for York. It outlines the requirements of Planning Policy Statement 25 (PPS25) 'Development and Flood Risk', the components of the SFRA and the key amendments to the SFRA which was originally approved by Members in 2007. The key change made to York's SFRA include refining the flood risk classifications reflecting the use of more accurate information and modelling work.
2. A draft of the updated SFRA is attached as Annex A. The SFRA appendices and associated maps are available in the Members Library, in Guildhall Reception, on the Council's website and from the authors of the report.
3. Members are asked to recommend the Council's Executive to approve the revised SFRA for publication as part of the Local Development Framework evidence base and for use in guiding Development Management decisions as a material consideration.

Background

4. PPS25 sets out the governments policy on planning for flood risk. The guidance recommends that a SFRA should be carried out by the local planning authority to inform the preparation of its Local Development Framework, having regard to catchment-wide flooding issues which affect the area. In 2007 the Council's Engineering Consultancy produced an SRFA for York. This was approved by Members as a key part of York's LDF evidence base.
5. In March 2010 PPS25 was reviewed, in addition the Environment Agency commissioned a number of new modelling studies that supersede those used for the original SFRA. Both the updated government guidance and new modelling work mean that York's 2007 SFRA needed to be updated. The City Development Team commissioned the Council's Engineering Consultancy to undertake the necessary work.

Key Components of SFRA

6. The revised SFRA, attached as Annex A to this report, covers five key areas each of which is detailed below.
 - i. **Introduction** – outlines the effects of flooding specific to the York area and highlights the purpose of the document.
 - ii. **Background** – provides an overview of York's river network including a broad description of the general physical characteristics, the influences of climate change, and international, national and local planning policies.
 - iii. **Flood Risk in York : Key Issues** – assesses in detail the flood risk issues affecting the three main rivers in York namely the River Ouse, the River Foss and the River Derwent, and highlights the key issues for each catchment.
 - iv. **Approach to Flood Risk** – provides detailed policy recommendations for the York area in relation to each flood risk zone. This section is split into two parts covering Forward Planning and Development Management.
 - v. **Sequential Test and Exception Test** - provides detailed information on the Sequential Test and the Exception Test for the York Local Authority Area. Again these tests are split down into Forward Planning and Development Management.

Flood Risk Classifications

7. The key change between the 2007 and 2011 SFRA relate to the flood risk classifications both in terms of the categories used and mapping.
8. SFRA (2007) classified flood risk on the basis of the zones set out below:
 - **Zone 1:** Annual probability of flooding of less than 1 in 1000-year (<0.1%).
 - **Zone 2:** Annual probability of flooding of between 1 in 1000-year (<0.1%) and 1 in 100-year (1%).
 - **Zone 3a(i):** Annual probability of flooding of greater than 1 in 100-year flood risk. Flood defence protection level 1 in 100-year (1%).
 - **Zone 3a(ii):** Annual probability of flooding greater than 1 in 100-year (1%). Flood defence protection level between 1 in 50-year (2%) and 1 in 100-year (1%).
 - **Zone 3a(iii):** Annual probability of flooding of greater than 1 in 100-year (1%). Flood defence protection level less than 1 in 50-year (2%).
 - **Zone 3b:** Functional Floodplain with an annual probability of flooding of greater than 1 in 100-year (1%).

9. The SFRA (2011) classifications for York reflects new modelling work by the Environment Agency and the Council's Engineering Consultancy to more accurately reflect actual risk and now include the following zones.
- **Zone 1:** Annual probability of flooding of less than 1 in 1000-year (<0.1%).
 - **Zone 2:** Annual probability of flooding of between 1 in 100-year (1%) and 1 in 1000-year (<0.1%).
 - **Zone 3a:** Annual probability of flooding of between 1 in 100-year (1%) and 1 in 25-year (4%).
 - Additional guidance for defended areas, including:
 - Area defended up to 1 in 100-year (1%); and
 - Areas defended up to 1 in 50-year (2%) flood risk between 1 in 50-year (2%) and 1 in 100-year (1%).
 - **Zone 3a(i):** Developed areas with up to a 1 in 25-year or greater annual probability of flooding.
 - **Zone 3b:** Functional Floodplain with up to a 1 in 25-year or greater annual probability of flooding.
10. These new zones have also been mapped more accurately. The effects of the changes needs to be considered in light of the information included in Tables 2 and 3 below and alongside the SFRA Flood Risk Assessment Maps. Table 3 sets out the flood risk vulnerability classification and Table 2 shows the flood risk vulnerability and associated flood zone compatibility.
11. It should be noted that although there have been changes through refining the flood risk classifications, the broad pattern of areas identified in relation to flooding remain largely unchanged.

Table 2: Flood Risk Vulnerability and Flood Zone ‘Compatibility’

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1 Flood risk probability less than 1 in 1000-year (<0.1%).	✓	✓	✓	✓	✓
	Zone 2 Flood risk probability between 1 in 1000-year (0.1%) and 1 in 100-year (1%).	✓	✓	Exception Test required	✓	✓
	Zone 3a Flood risk probability greater than 1 in 100-year.	Exception Test required	✓	x	Exception Test required	✓
	Zone 3a(i) Annual probability of flooding greater than 1 in 25-year (4%). Existing development.	Exception Test required	✓	x	x	Exception Test required
	Zone 3b‘Functional Floodplain’ Annual flood risk probability greater than 1 in 25-year (4%).	Exception Test required	✓	x	x	x

- ✓ Development is appropriate
- x Development should not be permitted

Table 3: Flood Risk Vulnerability Classification:

Essential Infrastructure	<ul style="list-style-type: none"> • Essential transport infrastructure (including mass evacuation routes), which have to cross the area at risk. • Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including electricity generating power stations; and water treatment works that need to remain operational in terms of flood. • Wind turbines.
Highly Vulnerable	<ul style="list-style-type: none"> • Police stations, Ambulance stations, Fire stations, Command Centres and telecommunications installations required to be operational during flooding. • Emergency dispersal points. • Basement dwellings, ground floor flats* • Caravans, mobile homes and park homes intended for permanent residential use. • Installations requiring hazardous substances consent. (Where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities, or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations, or need to be located in other high flood risk areas, in these instances the facilities should be classified as “Essential Infrastructure”)
More Vulnerable	<ul style="list-style-type: none"> • Hospitals. • Residential institutions such as residential care homes, children’s homes, social services homes, prisons and hostels. • Buildings used for: dwelling houses; student halls of residence; drinking establishments; nightclubs; and hotels. • Non-residential uses for health services, nurseries and educational establishments. • Landfill and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	<ul style="list-style-type: none"> • Police, ambulance and fire stations, which are <u>not</u> required to be operational during flooding. • Buildings used for: shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non-residential institutions not included in ‘more vulnerable’; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment plants. • Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	<ul style="list-style-type: none"> • Flood control infrastructure. • Water transmission infrastructure and pumping stations. • Sewage transmission infrastructure and pumping stations. • Sand and gravel workings. • Docks, marinas and wharves. • Navigation facilities. • MOD defence installations. • Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. • Water-based recreation (excluding sleeping accommodation). • Lifeguard and coastguard stations. • Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. • Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

12. Table 3 above which is a key part of the updated SFRA differs to that included in the 2007 SFRA and reflects the latest government guidance. The key changes are highlighted in bold and essentially relate to the introduction of wind turbines in the Essential Infrastructure classification and police, ambulance and fire stations which are not required to be operational during flooding in the Less Vulnerable classification.

* In discussions with the Environment Agency, ground floor flats have been included as a highly vulnerable use. This is in addition to PPS25.

13. Potential future development for housing and employment highlighted to Members in the LDF Report relating to the Core Strategy considered by the working group on 25th October 2010, 1st November 2010 and 14th February 2011 are largely unaffected by the proposed SFRA update. Work on the SFRA update has been done in parallel with the Core Strategy. The reclassification of Flood Zone 3b from 1 in 100-year to 1 in 25-year in allowing the reallocation of areas into 3a may have a positive effect in leading to some brownfield sites being considered appropriate in principle for development when they were previously ruled out.

Relationship with Core Strategy Flood Risk Policy

14. The emerging submission Core Strategy flood risk policy is attached as Annex B to this report. This policy takes account of the draft updated Strategic Flood Risk Assessment. The policy directly references the 'Flood Risk Vulnerability Classification' and 'Flood Risk Vulnerability and Flood Zone Compatibility Classification' tables included within the SFRA this allows for flexibility so when the SFRA is updated there is no need to update the policy. In addition the policy requires a site-specific Flood Risk Assessment, which takes account of future climate change this must be carried out when allocating sites through the LDF process and all planning applications of 1 hectare or greater in Flood Zone 1 and for all applications in Flood Zones 2, 3a, 3a(i) and 3b.

Options

15. Members have two options relating to the updated SFRA:

Option 1: To recommend to the Executive to approve the SFRA, attached as Annex A, for publication as part of the Local Development Framework evidence base.

Option 2: To recommend to the Executive to seek amendments to the SFRA through the recommendations of the working group or alternatively request that officers prepare an alternative flood risk document.

Analysis of Options

16. Attached as Annex A is the updated SFRA, it gives a comprehensive analysis of flood risk in York, which reflects national guidance, the latest modelling work for the York area, it has the support of both the Council's Drainage Engineers and the Environment Agency and provides a sound basis for the LDF Core Strategy. In light of this Officers support Option 1.

Corporate Priorities

17. The proposed SFRA relates to the following Corporate Strategy Priorities:
 - Sustainable City
 - Thriving City

- Safer City
- Learning City
- Inclusive City
- City of Culture
- Healthy City

Implications

18. Implications are as listed below:

- **Financial:** There are no Financial implications
- **Human Resources (HR):** There are no HR implications.
- **Equalities:** There are no Equalities implications.
- **Legal:** There are no Legal implications
- **Crime and Disorder:** There are no Crime and Disorder implications.
- **Information Technology (IT):** There are no IT implications.
- **Property:** There are no property implications.
- **Other:** There are no other known implications.

Risk Management

19. There are no risks associated with the recommendations of this report.

Recommendations

20. That Members recommend the Executive:

- (i) to approve, subject to the recommendations of the working group, the proposed Strategic Flood Risk Assessment included as Annex A to this report, for publication as part of the Local Development Framework evidence base.

Reason: So that the Strategic Flood Risk Assessment can continue to be used as part of the Local Development Framework evidence base.

- (ii) to delegate to the Director of City Strategy in consultation with the Executive Member for City Strategy, the making of any other necessary changes arising from the recommendation of the LDF Working Group, prior to its publication as part of the Local Development Framework evidence base.

Reason: So that any recommended changes can be incorporated into the Strategic Flood Risk Assessment prior to its publication.

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Report Approved

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Wards Affected: *List wards or tick box to indicate all*

All

For further information please contact the author of the report

Background Papers:

None

Annex A: City of York Council Strategic Flood Risk Assessment

Annex B: Draft Core Strategy Submission Flood Risk Chapter

Associated maps available online, Members Library and at the meeting.