Kings Lynn Level 2 SFRA

Appendix C Guidance for Developers on applying the Sequential and Exception Tests

Flood data examples

March 2019
Contents

• Overview of Level 1 and Level 2 SFRA
• Sources of data to inform the developer guidance on the Sequential and Exception Tests (Appendix C to the Level 2 SFRA)
Reminder on use of SFRA data

- The SFRA is a strategic document and is not intended to replace the need for Developers to obtain detailed and site-specific flood risk information to inform Flood Risk Assessments.
- Rather it should be used to help apply the Sequential Test at an early stage and to scope and guide the contents of site specific Flood Risk Assessments and the Exception Test if it is required.
Overview of Level 1 and Level 2 SFRA
Level 1 SFRA

- Considers flood risk from all sources across the Council’s area
- Updated climate change assessment
- Policy context
- FRAs guidance
- Surface water and SuDS
- Informs the Sequential Test
Mapping

This map forms part of a series of interactive maps that show all sources of flooding in King's Lynn and West Norfolk, as well as other supporting map layers.

Clicking on a grid square in this map will open a separate interactive PDF map. Layers of interest can be made visible by clicking the boxes next to items in the legend. Note: the default setting has all layers switched off.

Further information on the source and background of the information contained within the interactive PDF can be found in the Strategic Flood Risk Assessment and by clicking on the 'Mapping Supporting Information' box in this map and the interactive PDFs.
Example Level 1 SFRA mapping
Level 2 SFRA

Borough Council of King's Lynn & West Norfolk Level 2 Strategic Flood Risk Assessment

Final Version 3.0
21 March 2019
www.jbaconsulting.com

Borough Council of King's Lynn & West Norfolk
Kings Court
Chapel Street
King's Lynn
Norfolk
PE30 1EX

- Further ST guidance
- Further information at a Community level to inform LPA ET
- Identifies opportunities for wider FRM betterment
- Windfall sites ST and ET guidance
Community Level Assessment

• A summary table and interactive map exist for each community

• Highest risk and most likely source of flooding
• Bring together flood risk information
• Depth and hazard mapping
• Identify Investment policy and needs
• Consider Emergency Planning arrangements
• Principles and guidance on the Exception Test
Community Area Assessments

- Brancaster with Brancaster Staithe / Burnham Deepdale
- Burnham Market
- Clenchwarton
- Dersingham
- Downham Market
- East Rudham
- Emneth
- Grimston, Pott Row with Gayton
- Heacham
- Hunstanton
- Kings Lynn including West Lynn
- Marshland St James & St John’s Fen End with Tilney Fen End
- North Wootton & South Wootton
- Snettisham
- Southery
- St John’s Highway/Tilney St Lawrence
- Terrington St Clement
- Walpole St Peter, St Andrew & Marsh
- Walsoken
- Watlington
- West Walton
- West Winch
Example Level 2 SFRA mapping
Examples to support developers to apply the guidance in Appendix C of the Level 2 SFRA
Flooding from rivers and sea
Flood map for planning

- **Flood Zone 2:** undefended extreme flood 1:1000
- **Flood Zone 3:** tidal 1:200 and river 1:100
- **Flood Zone 3b:** functional floodplain
- **Flood Zone 3a:** remaining Flood Zone 3
- **Flood Zone 1:** everywhere else

SFRA mapping may temporarily be more up to date than gov.uk

3b only available via SFRA

https://flood-map-for-planning.service.gov.uk/
Risk of Flooding from Rivers and Sea

- A raster risk based map using national data, published online and replicated in the Level 2 SFRA mapping
- Shows risk taking flood defences into account
- Used by insurers and mortgage providers

Watercourse and coastline data

• IDB areas mapped in Level 1 SFRA
• Level 1 maps; Main Rivers and DRN (Detailed River Network – shows all watercourses)
• Level 2 maps: IDB drains and DRN
• Any watercourse that is not a Main River is an Ordinary Watercourse
• Coastline shown on all relevant maps
Notes
Watercourse information displayed in this map is taken from Norfolk County Council's version of the Environment Agency's Detailed River Network dataset.

Key Plan

Legend
- Administrative area
- Main Rivers within Kings Lynn and West Norfolk
- Main Rivers outside Kings Lynn and West Norfolk
- Ordinary watercourses

Strategic Flood Risk Assessment Level 1
Appendix B - Ordinary Watercourses
King's Lynn and West Norfolk

This document is the property of Penny Black Associates Ltd. It shall not be reproduced in whole or in part, or disclosed to any third party, without the permission of Penny Black Associates Ltd.
Flood defences and flood warning

Detailed defence data (type/condition/standard) (Level 1)
Flood warning and alert areas (Level 1 and Level 2)
Impact of defence

- Areas benefitting from defences (Level 2)
- Risk of flooding from rivers and the sea (Level 2)
Most likely/ highest risk data

- The Level 2 SFRA identified which sources of flood risk were the most likely and highest risk for each community
- These are shown on the maps for those communities
- More likely: the type of flooding experienced most frequently
- Highest risk: the type of flooding that would cause the highest damage if it occurred
Historic flooding

- Shown as ‘recorded flood outlines’ on Level 1 and Level 2 mapping
Residual risk

- Residual risk (breach) (Level 1/ Level 2)
- Tidal/ fluvial undefended hazard (Level 2)
- Dry islands (Level 1)
Dry islands

• Level 1 SFRA
• Area >0.5 hectares in Flood Zone 1 surrounded by Flood Zone 2
• Access and egress considerations
• Emergency arrangements need to be considered
• May need to consider IDB drains, small catchments and impact of coastline
Surface water flood risk
Surface water flood map

Risk of flooding from surface water map (Level 1 and Level 2) Shown as high, medium and low on gov.uk
Most likely/ highest risk data

- The Level 2 SFRA identified which sources of flood risk were the most likely and highest risk for each community.
- These are shown on the maps for those communities.
- More likely: the type of flooding experienced most frequently.
- Highest risk: the type of flooding that would cause the highest damage if it occurred.
Surface Water Management Plan

- King’s Lynn, Downham Market, Wimbotsham, Snettisham and Heacham
- Critical Drainage Catchments and modelling outputs
- Take into account in FRAs and identify whether the development can contribute to SWMP actions

Groundwater flood risk
Flooding from groundwater

Areas susceptible to groundwater flooding (Level 1 and Level 2)
Other sources
Other sources of flooding

Reservoir flooding (Level 1)
IDB drains and standard of protection (Level 1)
Descriptions: historic flooding, sewers, highway drainage (Level 1 and Level 2)
Climate change information
Climate Change

Surface water
Tidal/ coastal
Fluvial (river)
In Level 1 and
Level 2