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LEVEL 1 STRATEGIC FLOOD RISK ASSESSMENT FOR CENTRAL LINCOLNSHIRE

ENVIRONMENT GROUP

Central Lincolnshire Local Plan Team

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DOCUMENT ISSUE RECORD

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All Environment Agency mapping data used under special license A3701. Data is current as of March 2015 and is subject to change.

The information presented and conclusions drawn are based on statistical data and are for guidance purposes only. The study provides no guarantee against flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates and associated probabilities.

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1.0 INTRODUCTION

- 1.1 This Level 1 Strategic Flood Risk Assessment (SFRA) is compliant with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance. The SFRA has been produced on behalf of the Central Lincolnshire Local Plan Team as part of the evidence base for their Local Plan.

Sources of Data

- 1.2 The report is based on the following information:
- (i) West Lindsey District Council SFRA July 2009
 - (ii) Lincoln Policy Area SFRA February 2010
 - (iii) North Kesteven District Council SFRA November 2009
 - (iv) Environment Agency Flood Zone and Surface Water Mapping

Background

- 1.3 The Central Lincolnshire Joint Strategic Planning Committee (CLJSPC) was established in October 2009 and the Central Lincolnshire Local Plan Team (previously called the Joint Planning Unit) was established in May 2010.
- 1.4 The Central Lincolnshire Local Plan Team is responsible for producing the Central Lincolnshire Local Plan which will contain planning policies that relate to the delivery and management of development in Central Lincolnshire. The Central Lincolnshire Local Plan will progressively replace the Local Plans of the City of Lincoln, West Lindsey and North Kesteven District Councils.
- 1.5 The planning policies in the Central Lincolnshire Local Plan will be used to help determine planning applications within the Central Lincolnshire area – the policies will set out what can be built and where.
- 1.6 An initial review of the three existing Strategic Flood Risk Assessments covering the area was undertaken and concluded that one SFRA covering the combined area would provide a more robust evidence base.

Flood Risk Planning Policy

National Planning Policy Framework

- 1.7 The NPPF¹ sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. Planning Practice Guidance is also available online².
- 1.8 The Planning Practice Guidance sets out the vulnerability to flooding of different land uses. It encourages development to be located in areas of lower flood risk where possible, and stresses the importance of preventing increases in flood risk off site to the wider catchment area.
- 1.9 Local Plans should be supported by a Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as Lead Local Flood Authorities and Internal Drainage Boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid flood risk to people and property where possible and manage any residual risk, taking account of the impacts of climate change by:
- applying the Sequential Test;
 - if necessary, applying the Exception Test;
 - safeguarding land from development that is required for current and future flood management;
 - using opportunities offered by new development to reduce the causes and impact of flooding;
 - where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.
- 1.10 This Strategic Flood Risk Assessment is written in accordance with the NPPF and the Planning Practice Guidance.

The SFRA Structure

- 1.11 The two stages proposed for this SFRA are:
- Level 1 SFRA – Enables application of the Sequential Test,
 - Level 2 SFRA – Increases scope of SFRA for sites where the Exception Test is required.
- 1.12 The Level 1 SFRA (this report), will present sufficient information to enable the LPA to apply the Sequential Test to potential development sites and assist in identifying whether the application of the Exception Test will be necessary.

¹ National Planning Policy Framework, CLG, March 2012

² Planning Practice Guidance. <http://planningguidance.planningportal.gov.uk/>.

2.0 STUDY AREA

- 2.1 Central Lincolnshire covers the combined area of the City of Lincoln, North Kesteven and West Lindsey, totalling an area of 2116sq.km, with a population of 290,500 (Census 2011). The boundary of the study area is shown below.

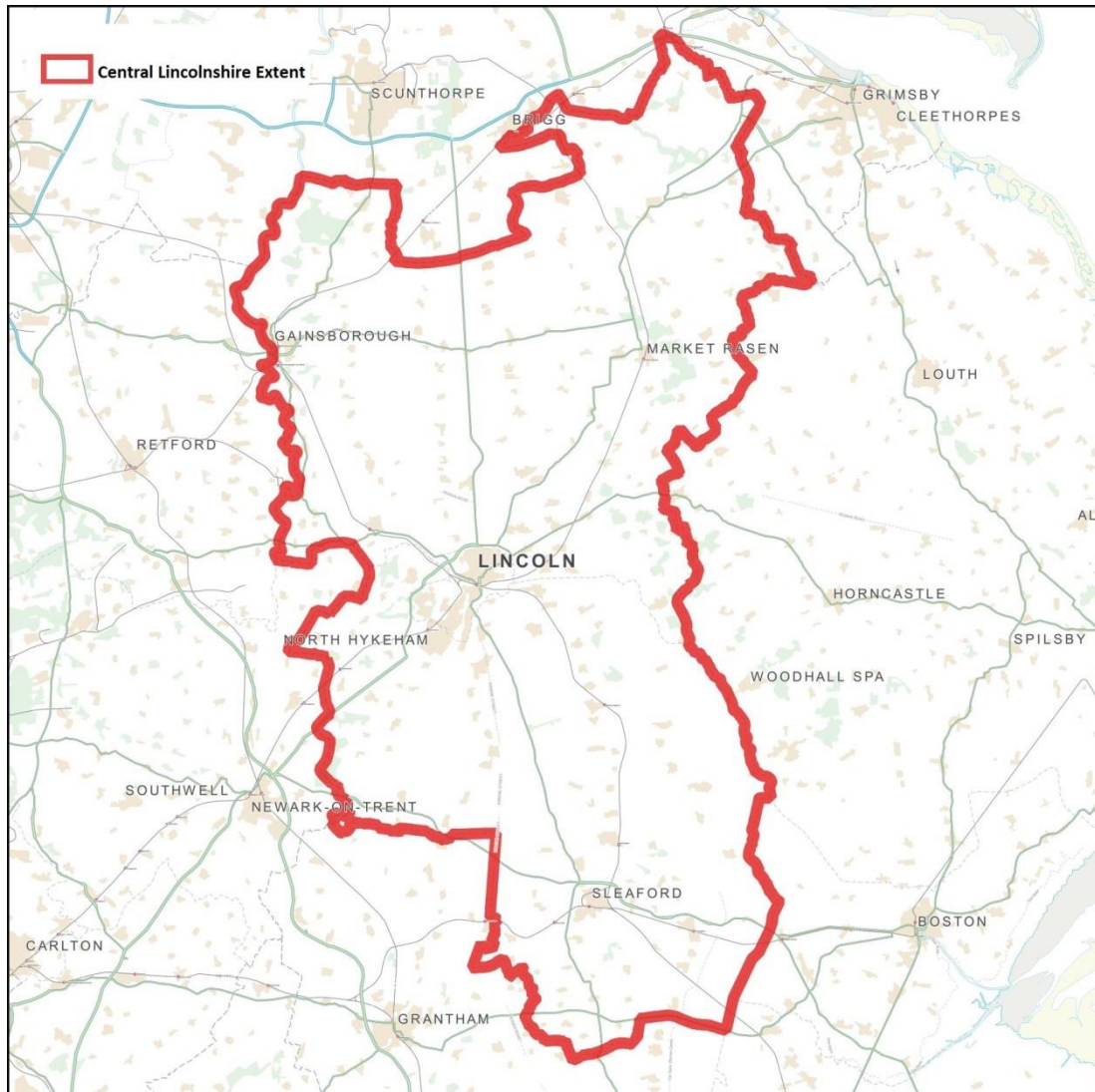


Figure 2.1 – Study Area

West Lindsey District Council SFRA 2009

- 2.2 The WLDC SFRA 2009 was produced using the guidance contained in Planning Policy Statement 25 (PPS25), and used engineering judgement to estimate the actual probability of flooding across the entire district.
- 2.3 The Areas Susceptible to Surface Water Flooding maps were referenced in the report but it was not clear how surface water, and other sources of flooding, should be used in the Sequential Test.
- 2.4 For the level 2 SFRA additional breach and overtopping mapping was produced for Gainsborough and Bardney.

Changes since the SFRA was produced

- 2.5 The following changes have occurred which affect the production of a new SFRA:
- National Planning Policy Framework has replaced PPS25.
 - There are now only 2 points in the Exception Test.
 - There is improved surface water mapping and understanding of risk.
 - Lincolnshire County Council is now the Lead Local Flood Authority.
 - Different view regarding the use of a safe refuge rather than safe access/egress.
 - More advice with regards to Sustainable Drainage Systems (SuDS).

Information that still remains valid

- 2.6 The following sections of the 2009 SFRA contain detailed information on the flood risk and drainage in the district which, whilst not applicable to this new SFRA, is still relevant and may be found useful in subsequent, more detailed studies:
- Section 3 Causes of Flooding
 - Section 4 Flooding in West Lindsey
 - Section 11 Study Areas in West Lindsey
 - Section 12 Surface Water Drainage in Gainsborough
- 2.7 A copy of the WLDC SFRA 2009 can be found here:

<http://www.lincolnshire.gov.uk/central-lincolnshire/planning-policy-library/environment/west-lindsey-strategic-flood-risk-assessment-2009/120605.article>

Lincoln Policy Area SFRA 2010

- 2.8 The LPA SFRA 2010 was produced using the guidance contained in Planning Policy Statement 25 (PPS25), and used the Environment Agency Flood Zone maps available at that time.
- 2.9 Areas Susceptible to Surface Water Flooding maps were included in the report but it was not clear how surface water, and other sources of flooding, should be used in the Sequential Test.
- 2.10 For the Level 2 SFRA additional breach and overtopping mapping including climate change was produced for the extended Lincoln City area.

Changes since the SFRA was produced

- 2.11 The following changes have occurred which affect the production of a new SFRA
- National Planning Policy Framework has replaced PPS25.
 - There are now only 2 points in the Exception Test.
 - There is improved surface water mapping and understanding of risk.
 - Lincolnshire County Council is now the Lead Local Flood Authority.
 - Different view regarding safe access/egress and emergency planning.
 - More advice with regards to Sustainable Drainage Systems (SuDS).
 - New flood hazard mapping for Lincoln.

Information that still remains valid

- 2.12 The following sections of the 2010 SFRA contain detailed information on the flood risk and drainage in the district which, whilst not applicable to this new SFRA, is still relevant and may be found useful in subsequent, more detailed studies.
- Volume 1, Section 7 Level 2 Assessment of Flood Risk within the City Area
 - Volume 2 Technical Summary
 - Volume 4 Maps

- 2.13 A copy of the LPA SFRA 2010 can be found here:

<http://www.lincolnshire.gov.uk/central-lincolnshire/planning-policy-library/environment/lincoln-policy-area-strategic-flood-risk-assessment-february-2010/120603.article>

North Kesteven District Council SFRA 2009

- 2.14 The NKDC SFRA 2009 was produced using the guidance contained in Planning Policy Statement 25 (PPS25), and used engineering judgement to estimate the actual probability of flooding across all the districts.
- 2.15 The Areas Susceptible to Surface Water Flooding maps were referenced in the report but it was not clear how surface water, and other sources of flooding, should be used in the Sequential Test.
- 2.16 For the level 2 SFRA additional breach and overtopping mapping was produced for the Lower Witham Valley.

Changes since the SFRA was produced

- 2.17 The following changes have occurred which affect the production of a new SFRA
- National Planning Policy Framework has replaced PPS25.
 - There are now only 2 points in the Exception Test.
 - There is improved surface water mapping and understanding of risk.
 - Lincolnshire County Council is now the Lead Local Flood Authority.
 - Different view regarding safe access/egress and emergency planning.
 - More advice with regards to Sustainable Drainage Systems (SuDS).

Information that still remains valid

- 2.18 The following sections of the 2009 SFRA contain detailed information on the flood risk and drainage in the district which, whilst not applicable to this new SFRA, is still relevant and may be found useful in subsequent, more detailed studies.
- Section 4 Sources of Flooding in North Kesteven
 - Section 5 Flood Risk Management
 - Section 11 Actual Flood Risk
 - Section 14 Sleaford Town Study Area
 - Section 15 Lower Witham Fens Study Area

- 2.19 A copy of the NKDC SFRA 2009 can be found here:

<http://www.lincolnshire.gov.uk/central-lincolnshire/planning-policy-library/environment/north-kesteven-strategic-flood-risk-assessment-2009/120606.article>

3.0 CENTRAL LINCOLNSHIRE LEVEL 1 SFRA

- 3.1 Following discussions between the Central Lincolnshire Local Plan Team, the Environment Agency and Lincolnshire County Council regarding the need for and scope of a level 1 SFRA to inform the Sequential Test for the site allocations in the Local Plan the following has been agreed.

Level 1 SFRA Scope

- 3.2 The Environment Agency Flood Zone maps will provide the basis for the Sequential Test.
- 3.3 Proposed allocations will initially be tested against available flood risk data as follows:
- Sites in Flood Zone 1 will be considered to have met the requirements of the Sequential Test and continue to be assessed against other local plan criteria.
 - Sites in Flood Zones 2 and 3 will be considered not to have met the requirements of the Sequential Test and will be subject to further consideration through the Exception Test undertaken in a Level 2 SFRA.
 - Environment Agency Risk of Flooding from Surface Water maps will be used to highlight any sites where further advice on the level of flood risk is required from the Lead Local Flood Authority and the relevant Internal Drainage Board.

Level 1 SFRA Mapping

- 3.4 The following maps accompany this report and will provide the evidence for the Sequential Test:

Appendix 1 Flood Zones

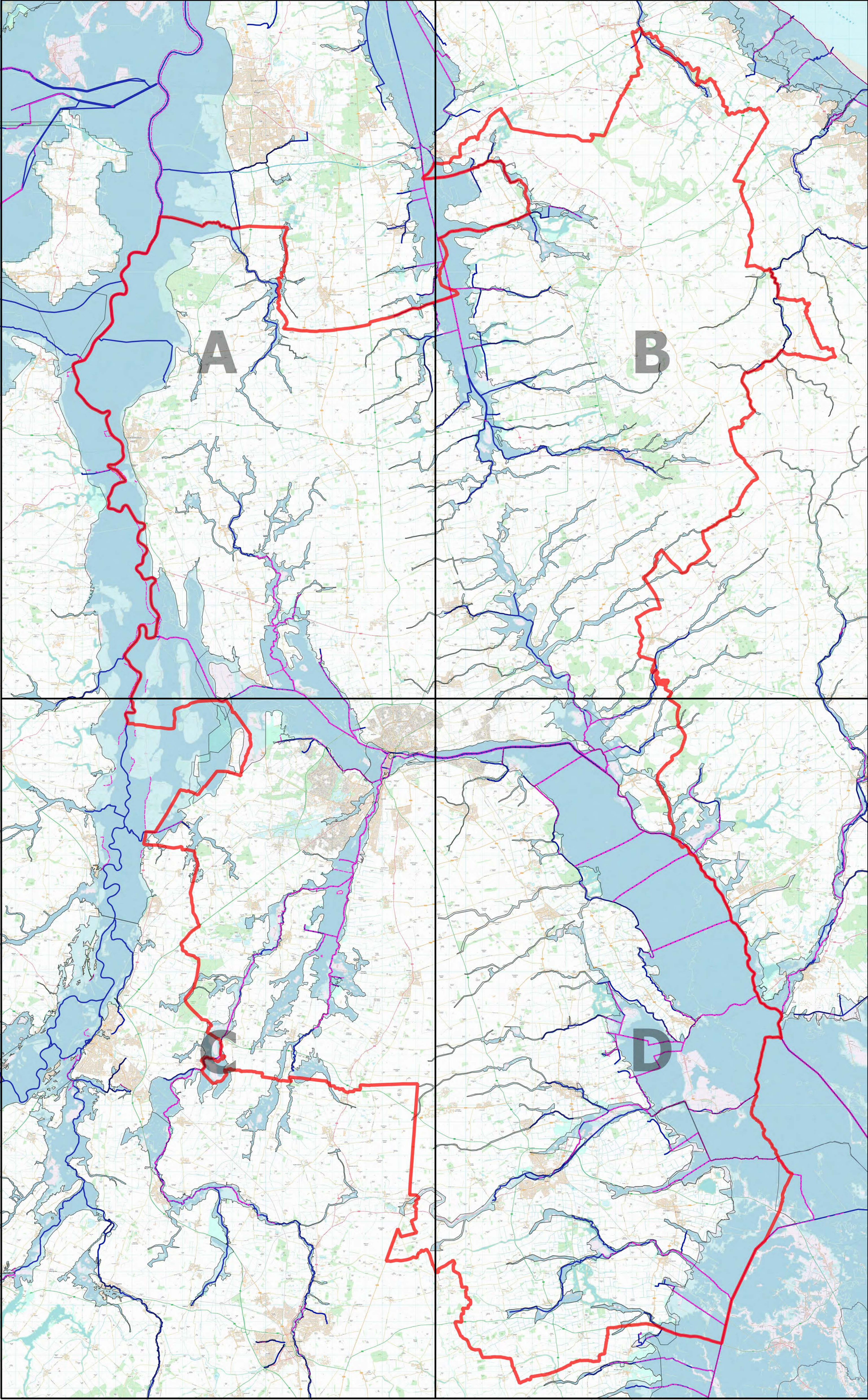
- Flood Zone Map Overview
- Flood Zone Map Area A
- Flood Zone Map Area B
- Flood Zone Map Area C
- Flood Zone Map Area D

Appendix 2 Surface Water

- Surface Water Risk Map Overview
- Surface Water Risk Map Area A
- Surface Water Risk Map Area B
- Surface Water Risk Map Area C
- Surface Water Risk Map Area D

APPENDIX 1

Flood Zone Maps



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- KEY
- Central Lincolnshire Extent
 - Flood Zones**
 - Flood Defences
 - Main Rivers
 - Areas Benefiting From Defences
 - Flood Zone 2
 - Flood Zone 3

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CENTRAL
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1 SFRA

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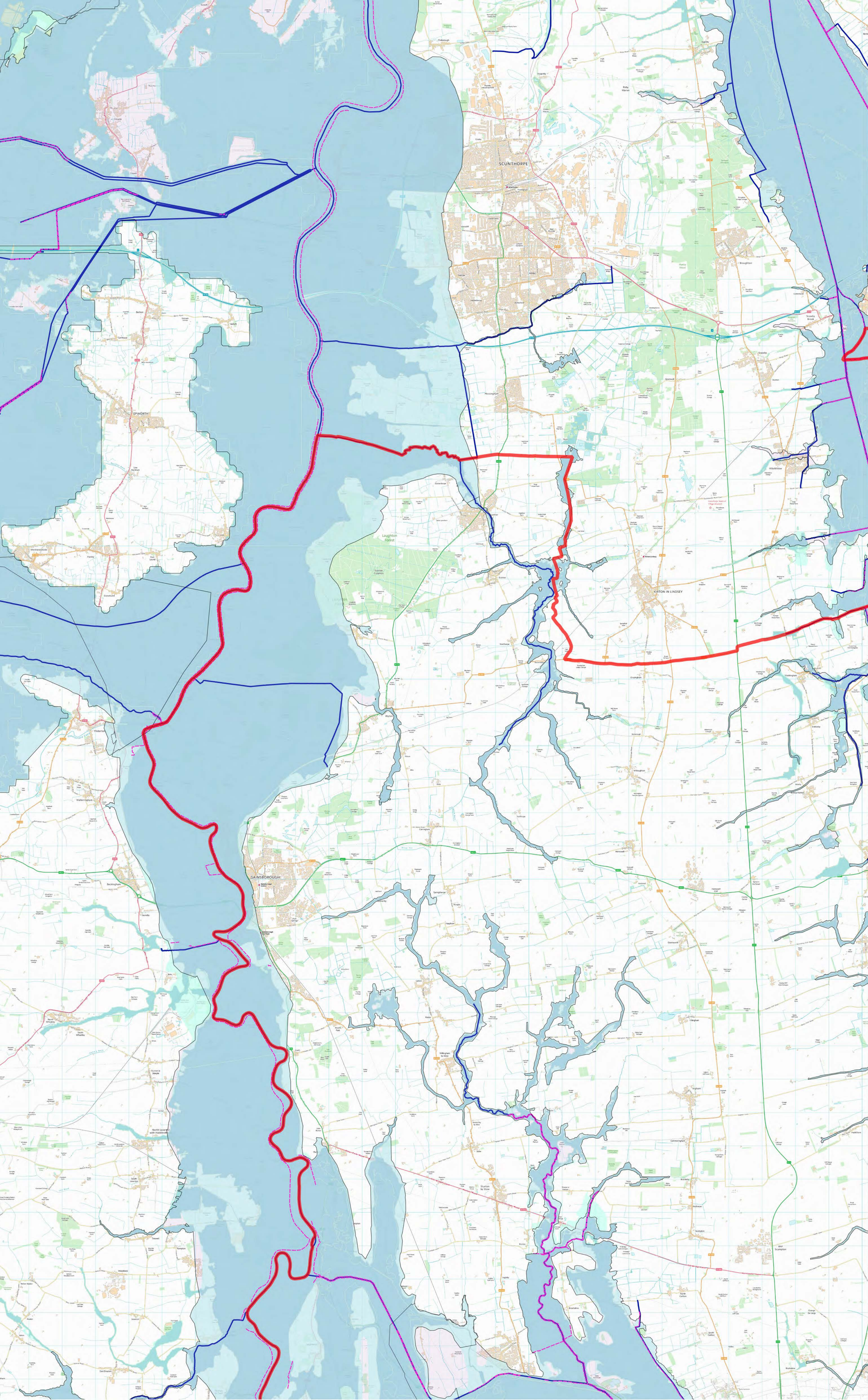
FLOOD ZONE MAP
OVERVIEW

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KEY

Central Lincolnshire Extent

Flood Zones

Flood Defences

Main Rivers

Areas Benefiting From Defences

Flood Zone 2

Flood Zone 3

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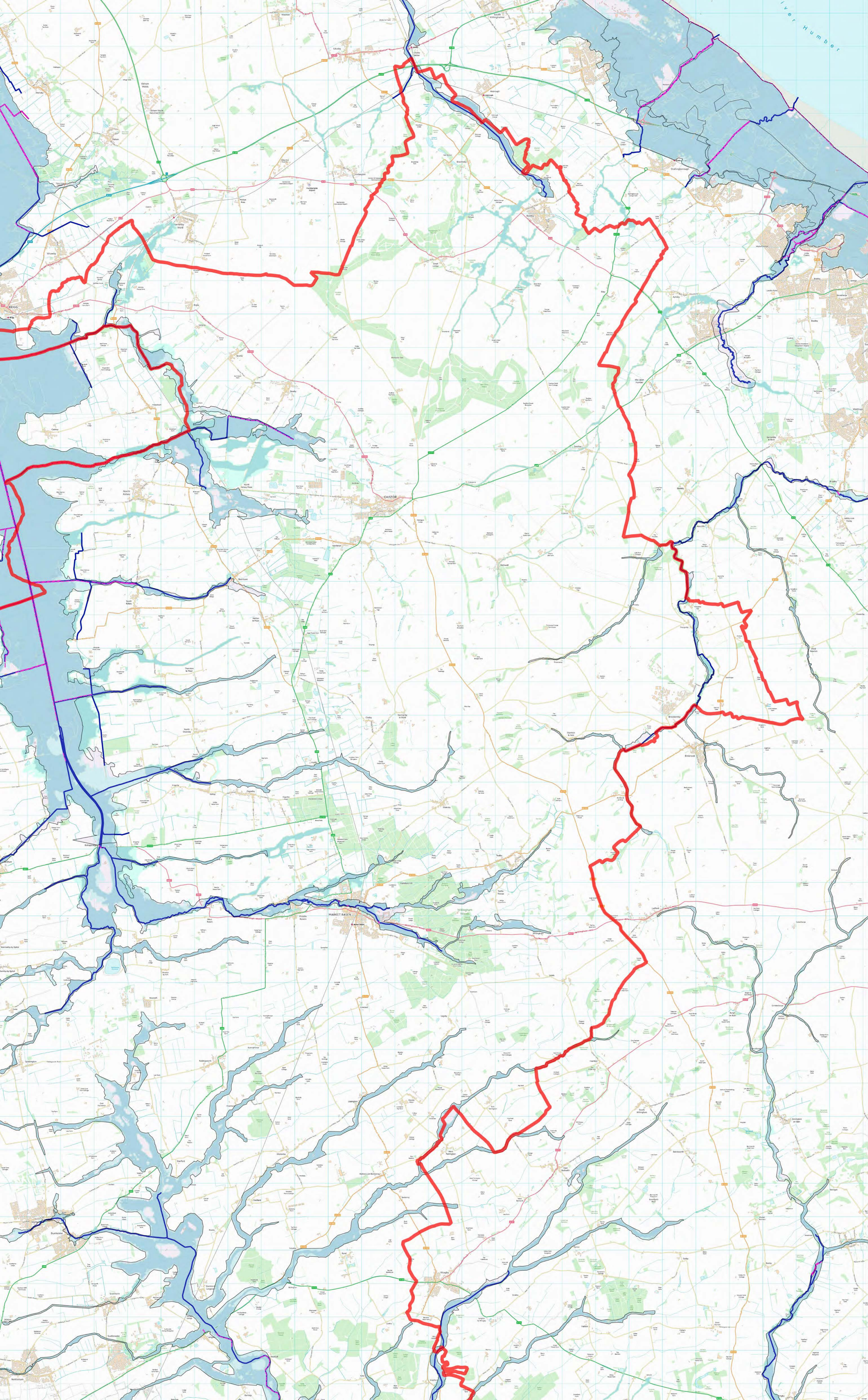
FLOOD ZONE MAP
AREA A

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KEY

- Central Lincolnshire Extent
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FLOOD ZONE MAP
AREA B

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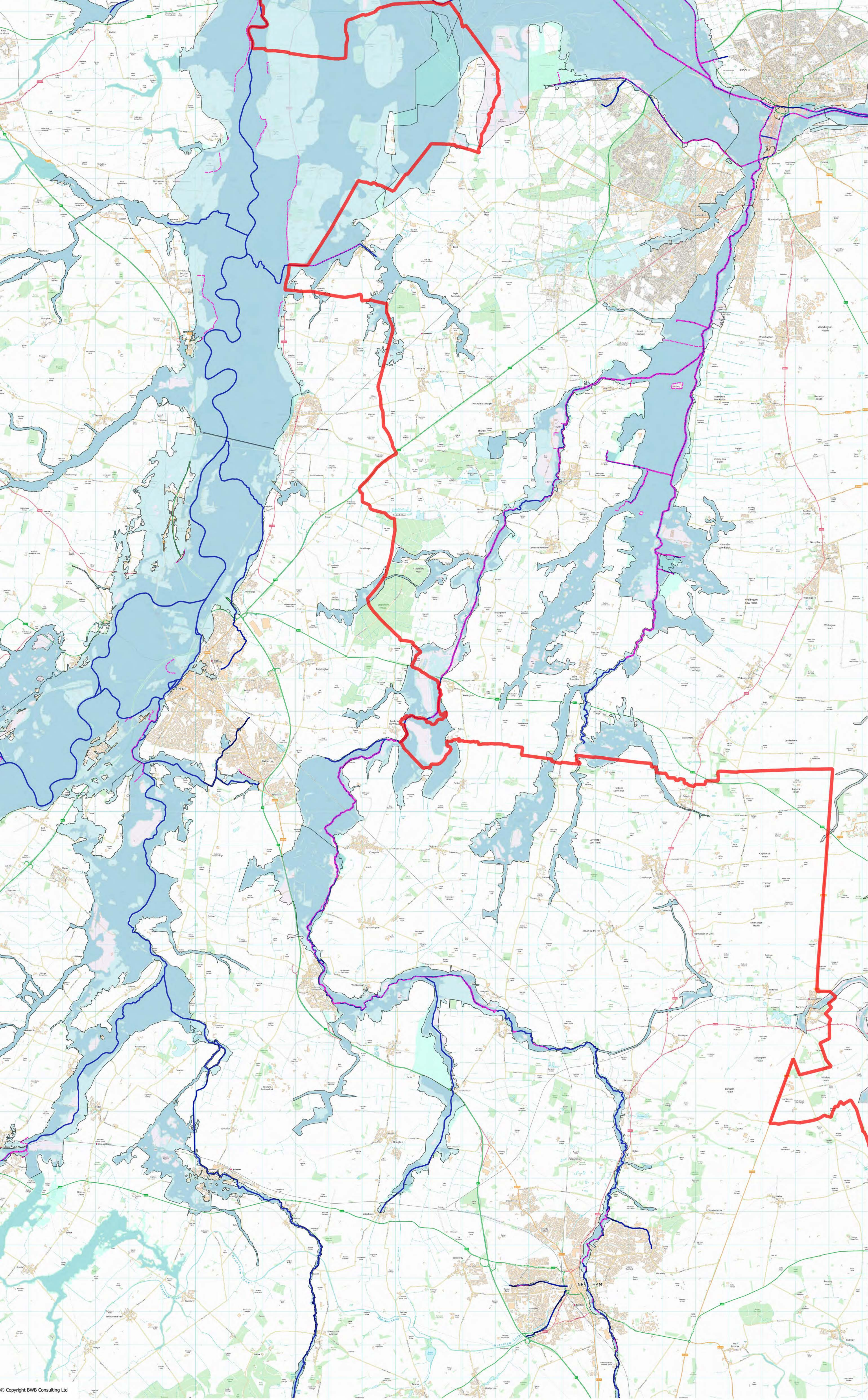
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FLOOD ZONE MAP AREA C

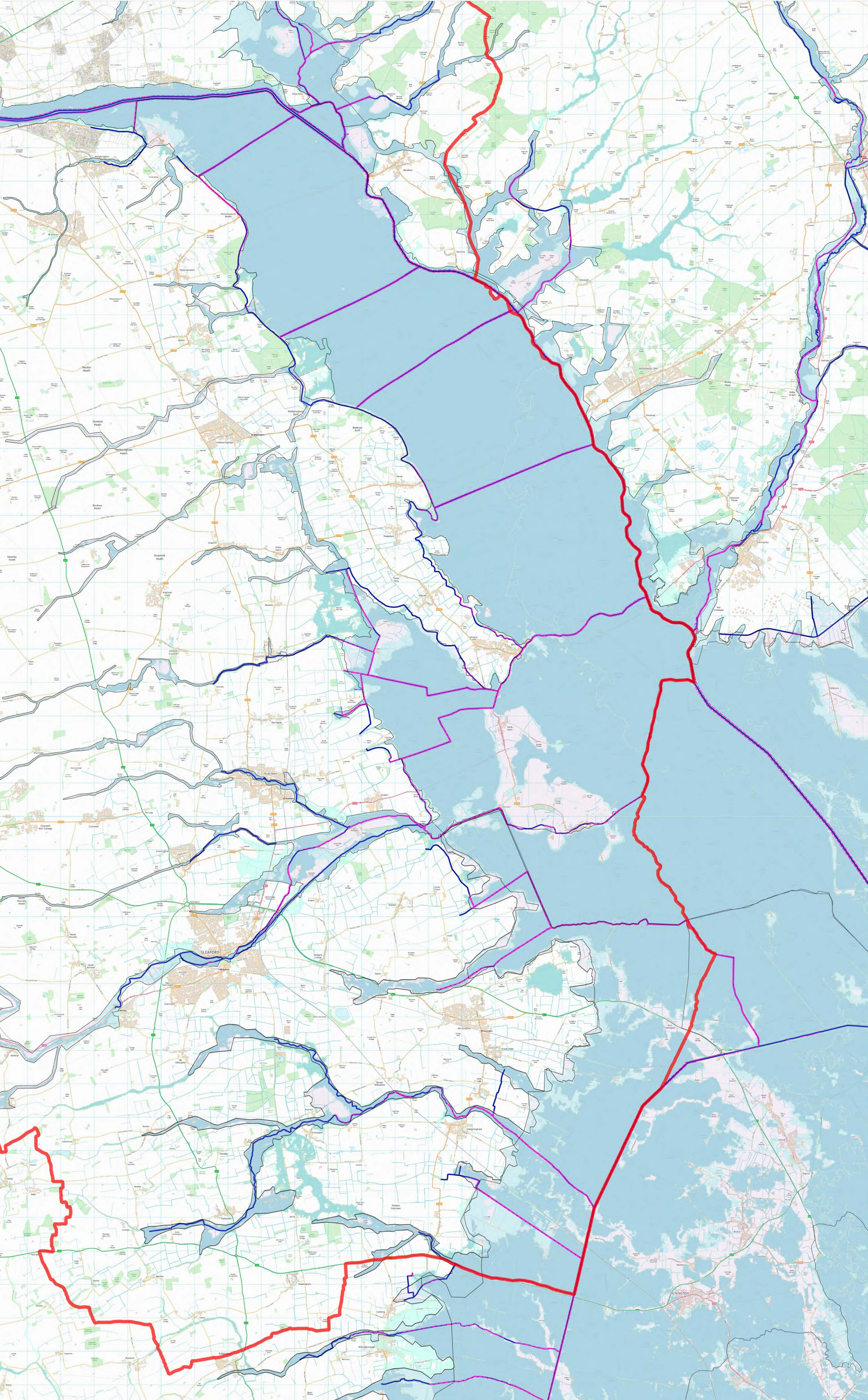
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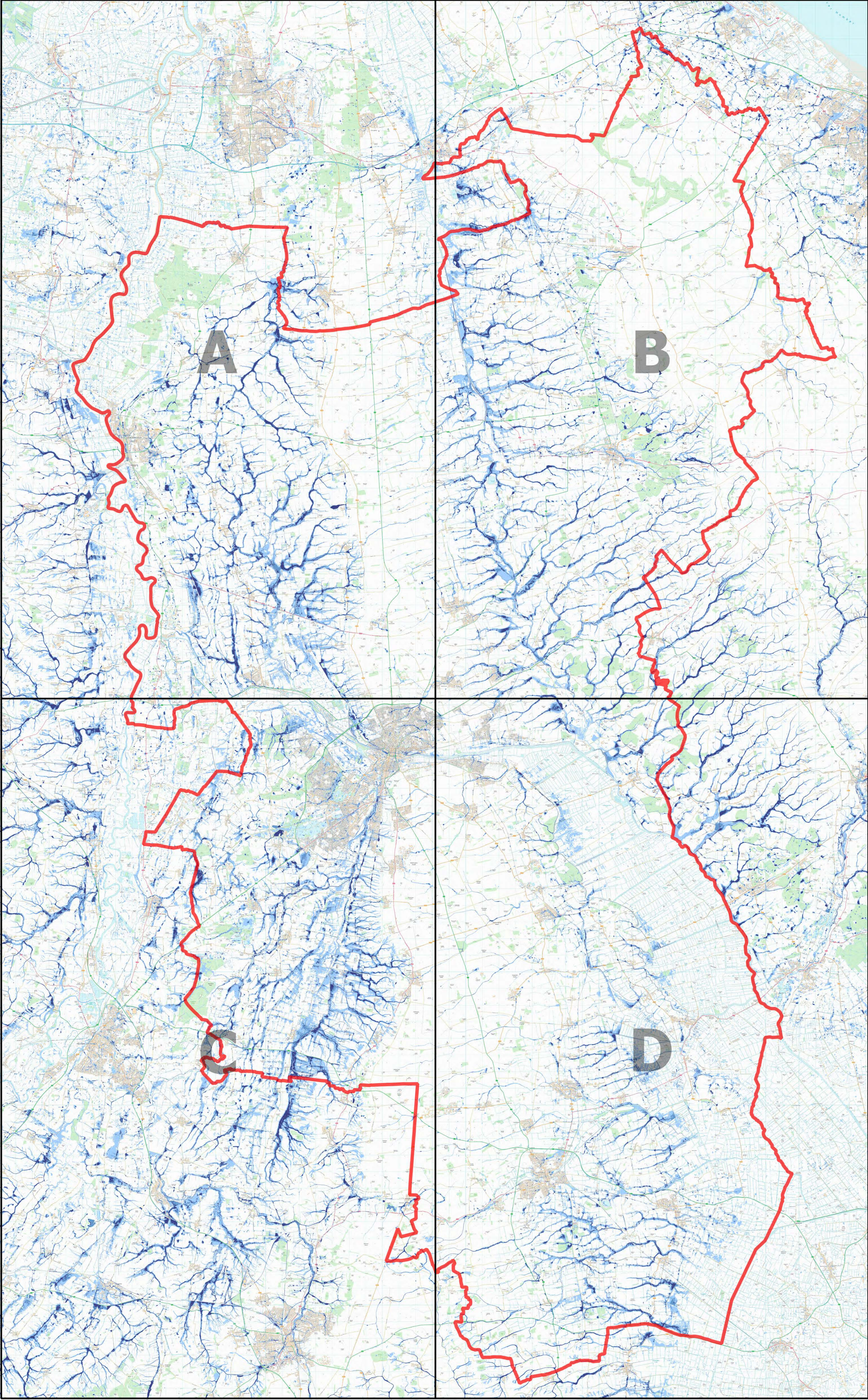
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APPENDIX 2

Surface Water Maps



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KEY

Central Lincolnshire Extent

Surface Water

- High Risk
- Medium Risk
- Low Risk

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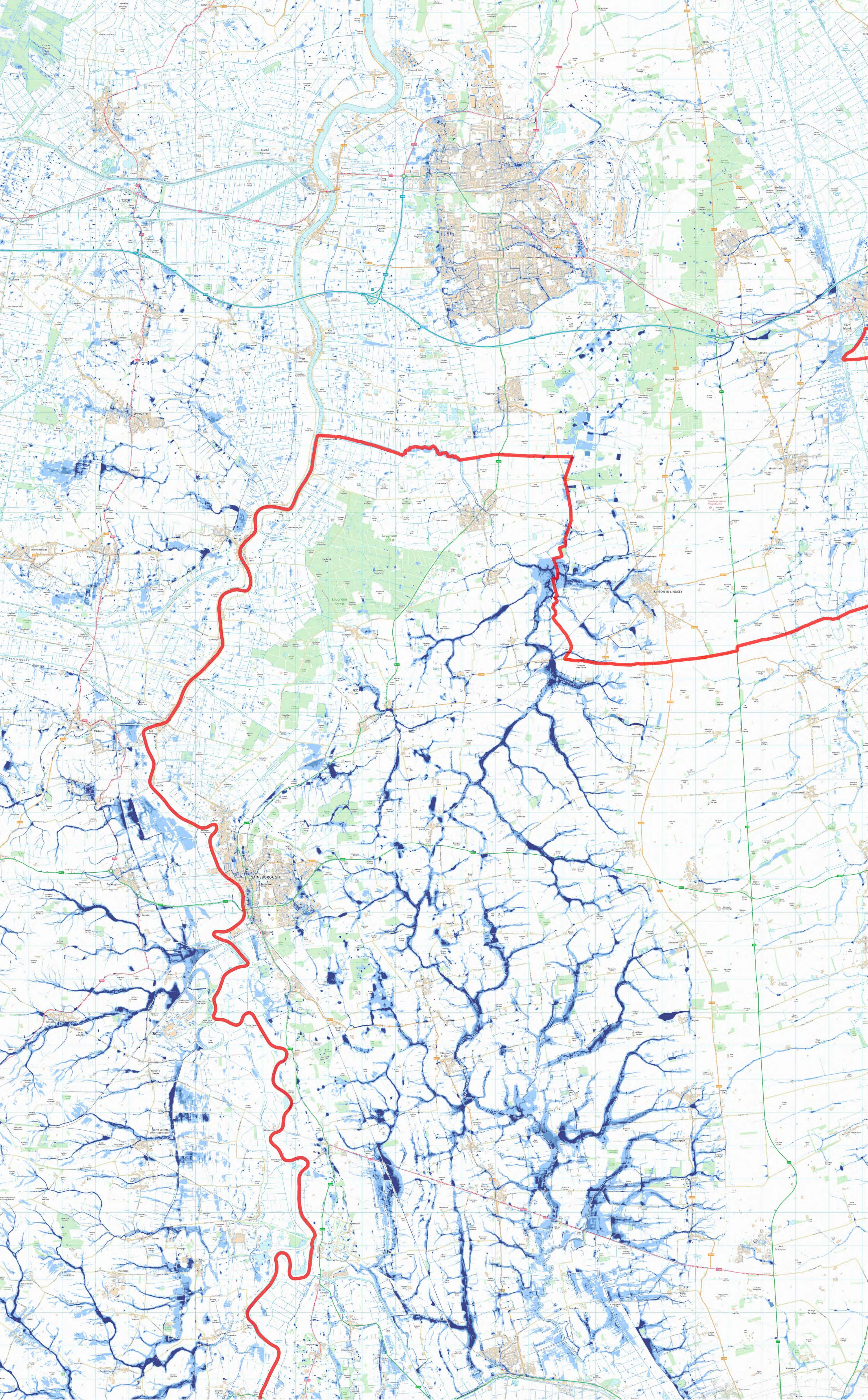
SURFACE WATER
RISK MAP
OVERVIEW

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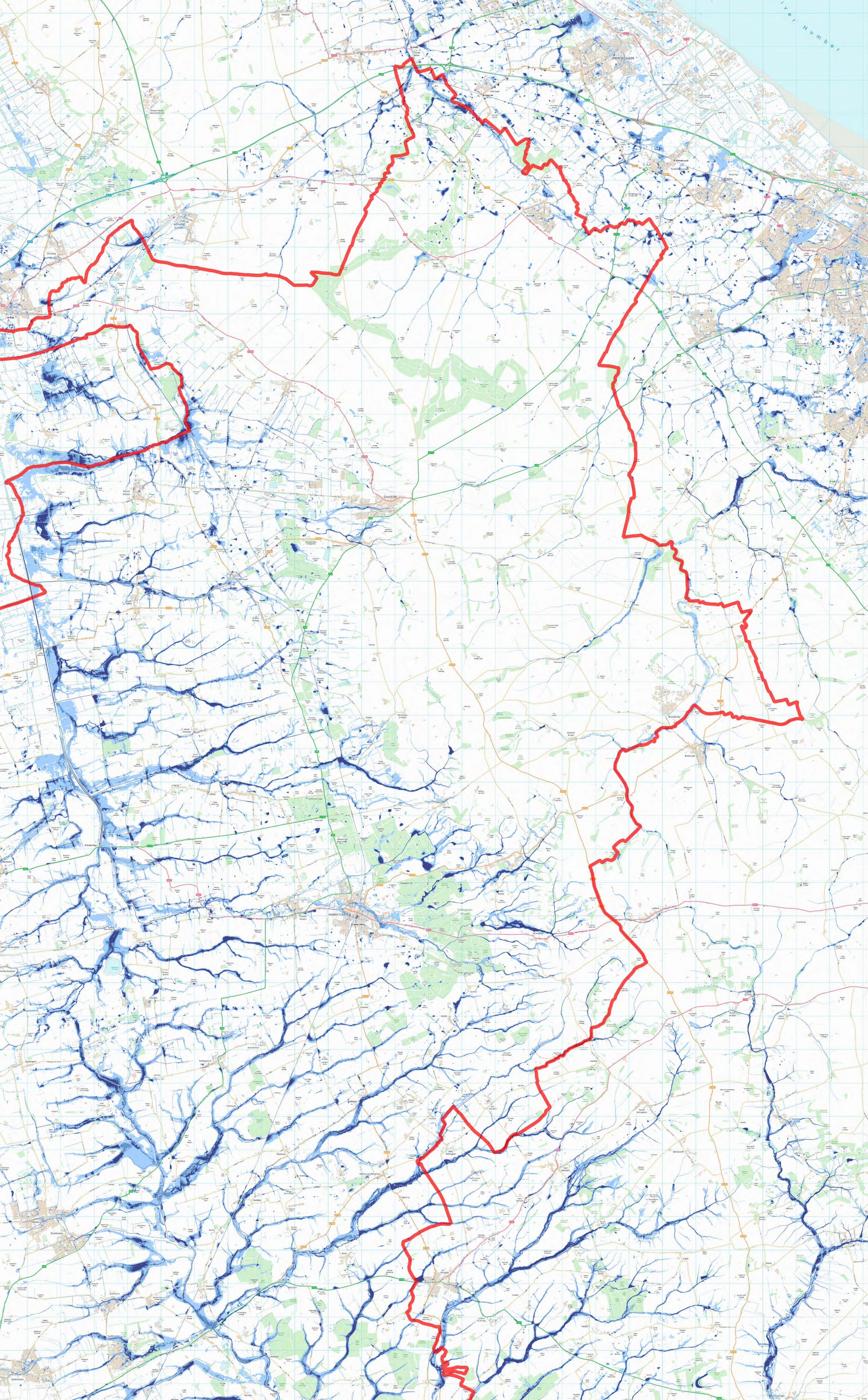
SURFACE WATER RISK MAP AREA A

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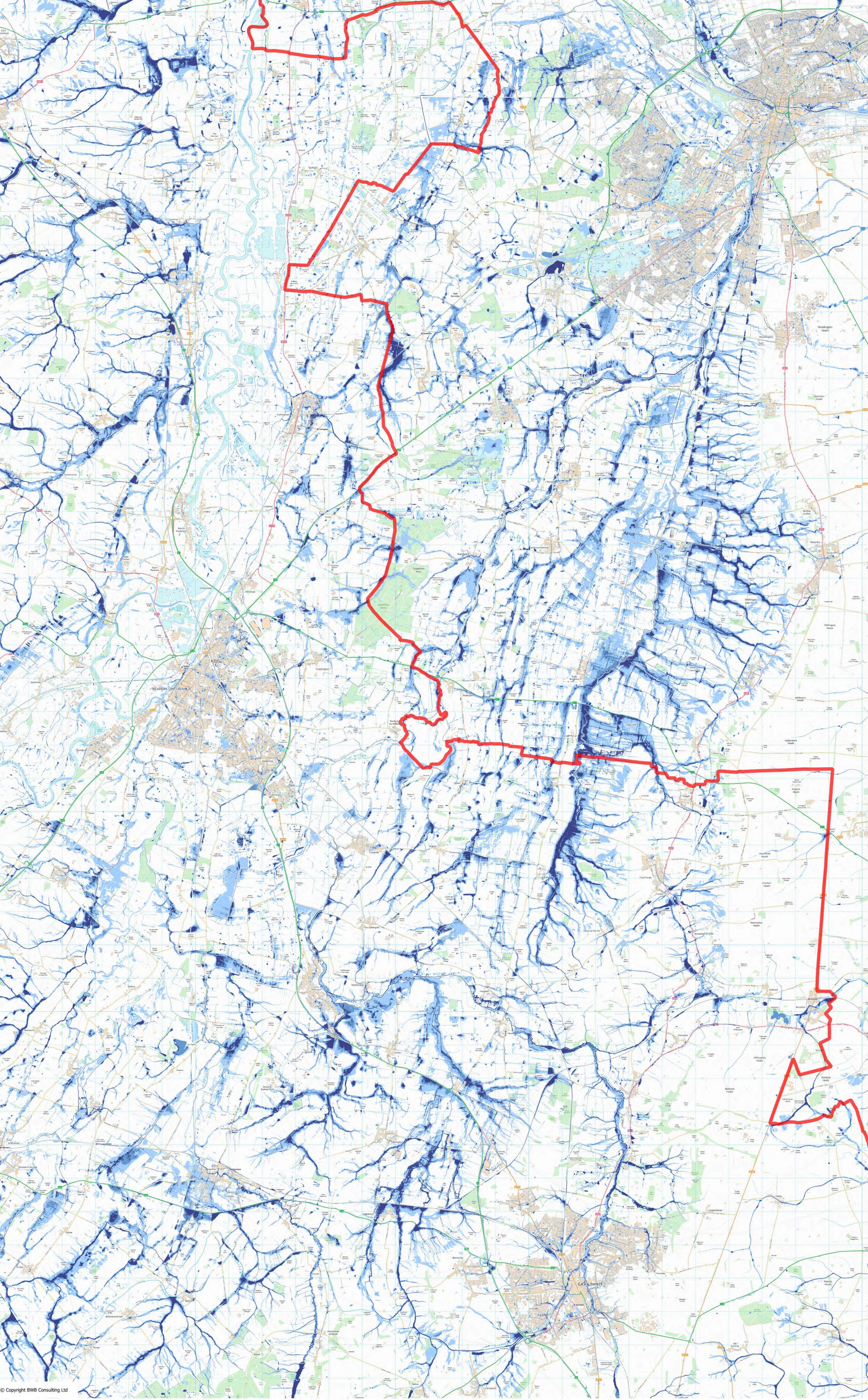
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KEY

Central Lincolnshire Extent

Surface Water

High Risk

Medium Risk

Low Risk

P1	04.12.14	PRELIMINARY ISSUE	JD	DA	
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Project Title

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Drawing Title

SURFACE WATER RISK MAP AREA C

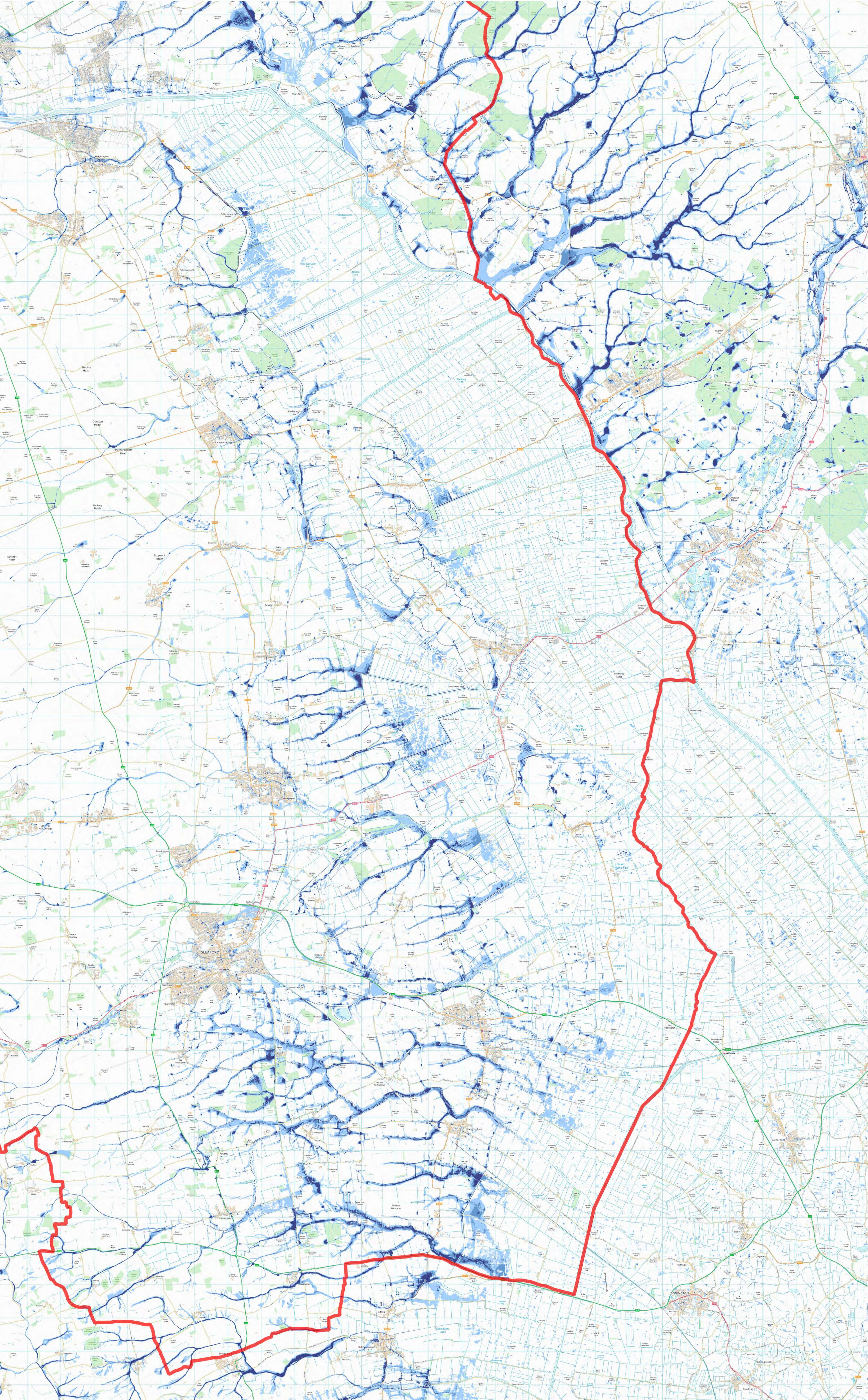
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Size	A1	Reviewed	D ALLUM

Drawing Status

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Drawing No.	NTW/2297/W108	Revision	P1
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