

**Lincolnshire Flood Risk and Drainage
Management Partnership Framework**



**Joint Lincolnshire Flood Risk and
Drainage Management Strategy
2012-2025**

Part 2B of 3

Annexes A-F

Annex A: Statutory requirements of the Local Flood Risk Management Strategy

Section 9 of the Flood and Water Management Act details the statutory requirements for Local Flood Risk Management Strategies (see section 10 on Wales for the differences for councils in Wales)

It states that a Lead Local Flood Authority must develop, maintain, apply and monitor a strategy for local flood risk management in its area for the following forms of flood risk

- surface runoff
- groundwater
- ordinary watercourses

The strategy must specify the following:

- the risk management authorities in the authority's area
- the flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area
- the objectives for managing local flood risk
- the measures proposed to achieve those objectives
- how and when the measures are expected to be implemented
- the costs and benefits of those measures, and how they are to be paid for
- the assessment of local flood risk for the purpose of the strategy
- how and when the strategy is to be reviewed
- how the strategy contributes to the achievement of wider environmental objectives

There must be consultation with the public and any risk management authority that would be affected. The Strategy must also be consistent with the National Flood and Coastal Erosion Risk Management Strategy for England.

A summary of the Local Strategy must be published and may be accompanied by guidance on how the strategy should be applied in the area.

In October 2010, the first elements of the Act were commenced, including the responsibility to produce a Local Flood Risk Management Strategy. Preliminary Flood Risk Assessments, which are part of the Flood Risk Regulations 2009, provide the initial assessment of local flood risk and should be used as the first step in developing the Local Strategy.

Annex B: Risk management authorities and their functions

The Lead Local Flood Authority (Lincolnshire County Council)

Most of the responsibilities laid on the County Council as Lead Local Flood Authority are new, although the Council has been actively working with partner organisations to develop the partnership before the legislation passed through Parliament. Its main duties consist of strategic action to provide local leadership and co-ordination, as well as operational and planning activities to manage the risk of local flooding.

These new responsibilities are summarised below.

- Develop, maintain, apply and monitor of a strategy for local flood risk management (with 'local flood risk' defined as flooding from surface water, groundwater and from ordinary watercourses outside Internal Drainage Board areas)
- Investigate and publish reports on flooding incidents (where appropriate or necessary) to identify which authorities have relevant flood risk management functions and what they have done or intend to do
- Maintain a register of structures or features which, in the view of the authority, have a significant effect on flood risk
- Power to undertake works to manage flood risk from surface runoff or groundwater
- Power to designate structures and features that could affect flooding and are considered to be significant when assessing local flood risk
- Become the Sustainable Urban Drainage (SuDS) Approval Body (SAB) with responsibility for approval, adoption and maintenance of new SuDS developments (implementation expected by April 2013)
- Responsibility for issuing consents for works on ordinary watercourses (outside Internal Drainage Board districts) by third parties that may affect water flow and for enforcing obligations on third parties to maintain and for enforcement action where third parties are not meeting any obligations they may have towards these

The Lead Local Flood Authority must exercise these functions consistently with the Environment Agency's National Flood Risk and Coastal Erosion Management Strategy, and in a way that contributes to sustainable development.

In order to help it discharge its duties, the LLFA also has powers to request relevant information from other organisations, and in common with the other risk management authorities, it is obliged to co-operate with and provide information to those authorities. All risk management authorities can, by

agreement, take on flood and coastal erosion risk management functions from each other, except for the Lead Local Flood Authority, which cannot delegate its duty to provide the local flood risk management strategy, or its basic accountability – in other words it cannot ask another authority to act as the Lead Local Flood Authority for its area.

The Environment Agency

The Environment Agency already has significant flood and coastal erosion risk management functions, including coastal management (in some parts of the country this is undertaken by local authorities) and management of main rivers (see map below).

The Agency had an existing power to issue a levy on County Councils and Unitary Councils to support flood risk management on a regional basis, through the Regional Flood and Coastal Committee. This remains as a levy on Lead Local Flood Authorities, although the regional committees have now been changed to Regional Flood and Coastal Committees so that their remit covers the Environment Agency's coastal activities.

The most important new responsibilities for the Environment Agency are:

- A National strategic overview role for all forms of flooding, and a duty to develop a National Strategy for Flood and Coastal Erosion Risk Management (FCERM) to cover all forms of flooding. The Agency is required to report to Ministers about flood and coastal erosion risk management including application of the national strategies for England and Wales and management of flood risk by all risk management authorities
- Converting Regional Flood Defence Committees into Regional Flood and Coastal Committees with a new remit to include coastal erosion issues
- Powers to request information in connection with the Environment Agency's flood and coastal erosion risk management functions
- Power to designate structures and features that affect flooding or coastal erosion
- Powers to cause flooding and erosion for nature conservation and cultural heritage reasons, and people's enjoyment of these
- Existing provisions for regulating flood risk from reservoirs have been updated to increase the range of reservoirs subject to regulation and tighten up regulations

In carrying out its duties, the Environment Agency must have regard to the Local Flood Risk Management Strategy set out by the LLFA, and, like other risk management authorities, must also contribute to sustainable development, co-operate with other risk management authorities and provide

them with information. In addition, the Environment Agency is a statutory consultee on proposals for SuDS.

A further significant change is the loss of the Environment Agency's former powers to consent and enforce ordinary watercourses. Only Lead Local Flood Authorities and Internal Drainage Boards have these powers from April 2012.

Internal Drainage Boards (IDBs)

Internal Drainage Boards are the longest established of all the risk management authorities. In their current form the Boards date back to the 1930s, but their predecessor organisations, particularly in the Lincolnshire Fens, can be traced back to the thirteenth century.

Internal Drainage Boards are established in low-lying areas of special drainage need, which in Lincolnshire amounts to 40% of the county's land area. This is highest proportion of any local authority area covered by Internal Drainage Boards. The main responsibilities of IDBs are land drainage, management of water levels across large areas and extensive drainage systems, and, increasingly, a major contribution towards biodiversity and nature conservation.

The new legislation adds a number of new powers and responsibilities to the IDBs' existing role:

- Power to designate structures and features that affect flooding or coastal erosion
- Powers to cause flooding and erosion for nature conservation and cultural heritage reasons, and people's enjoyment of these
- Duty to exercise their functions in a manner consistent with local and national strategies
- Duty to be subject to scrutiny from lead local flood authorities' democratic processes
- Ability to work in consortia with other IDBs
- Statutory consultees to the SuDS approving body on sustainable drainage
- Powers to undertake consenting, enforcement and works on ordinary watercourses flood risk within their boundaries, and with the Environment Agency's consent, the sea.

Water and Sewerage Companies

Two Water Companies operate in Lincolnshire. The majority of the county is covered by Anglian Water Services Ltd, although a strip of the county along the Trent in the West, including Gainsborough and surrounding area, are served by Severn-Trent Water.

Water Companies provide a range of services, including supply of fresh water, removal of foul water, maintenance of many surface water sewers in built-up areas as well as an extensive sewerage system, sewage treatment and water quality. They are the only risk management authorities that are private businesses, rather than public authorities.

Under the legislation they acquire the following new roles and responsibilities:

- duty to act consistently with the national strategies and to have regard to local strategies when carrying out their flood risk management functions
- duty to be subject to scrutiny from lead local flood authorities' democratic processes in respect of their flood risk management functions
- duty to co-operate with and share information with other risk management authorities in respect of flood risk management functions
- adoption of private sewers within the property boundary of private residences

District and Borough Councils

New roles and responsibilities:

- power to designate structures and features that affect flooding or coastal erosion
- duty to exercise their flood risk management functions in a manner consistent with local and national strategies, and to have regard to those strategies in their other functions
- duty to be subject to scrutiny from lead local flood authorities' democratic processes

Continuing roles and responsibilities

- power to do works on ordinary watercourses and, with the Environment Agency's consent, the sea

Other key partners

The Regional Flood and Coastal Committee – see Annex C below

The Lincolnshire Resilience Forum – acts to bring together operational authorities responsible for responding to major emergencies and events, including major flooding incidents.

Natural England – has a key role to advise and support the partnership in meeting environmental responsibilities and ensuring that flood risk and drainage management secures wider environmental benefits in strategic and operational practice.

Annex C: Governance and accountability of Risk Management Authorities

The accountabilities of individual organisations can be briefly summarised.

- The Environment Agency is an executive agency of Defra, and is accountable, through its national Board, to the Secretary of State and, ultimately, to Parliament
- The Lead Local Flood Authority (Lincolnshire County Council) is directly accountable to the public by four-yearly election of the 77 Members
- District Councils are similarly accountable through direct public election of their Members
- Internal Drainage Boards are accountable to ratepayers in the areas they serve, their Boards being made up of members who are elected by these ratepayers and of appointed District Council members
- Water and Sewerage Companies are accountable to their shareholders and customers through their Boards
- Natural England has similar accountability arrangements to the Environment Agency

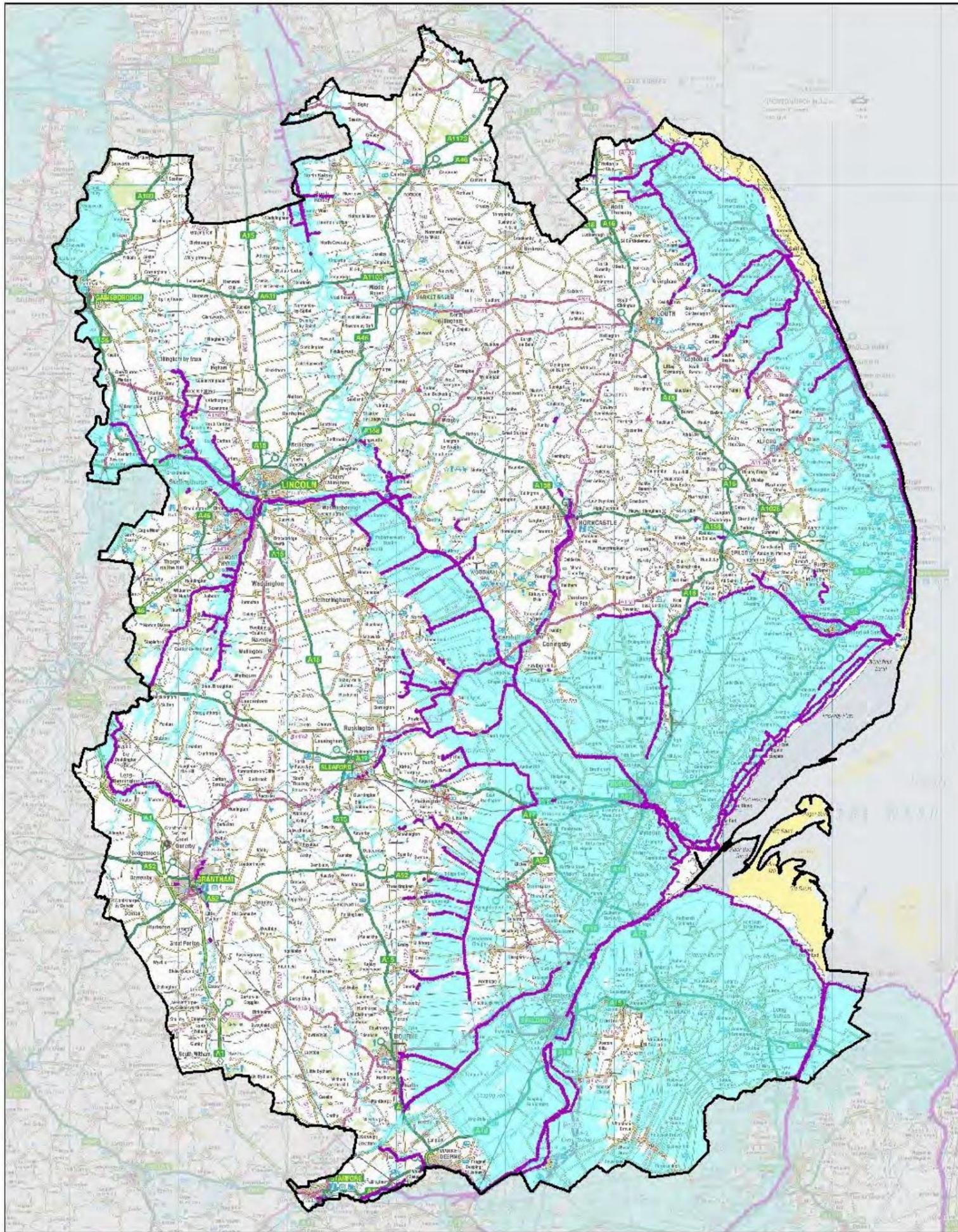
In addition there is a **Regional Flood and Coastal Committee**, which approves the Environment Agency's proposed plans at regional level and allocates much of the funding available to the Agency from Government. This also includes funding available from Government to Lead Local Flood Authorities and Internal Drainage Boards for local drainage and surface water flood risk management works.

The Anglian (Northern) Regional Flood and Coastal Committee covers most of Lincolnshire and Northamptonshire, Peterborough, parts of Cambridgeshire and Norfolk, North East Lincolnshire and part of North Lincolnshire. A strip of Western Lincolnshire along the Trent, including Gainsborough, is covered by the Trent Regional Flood and Coastal Committee. This is because these Committees are based on the boundaries of main river catchments.

Regional Flood and Coastal Committees are composed of members appointed by the Environment Agency, as well as a bare majority of elected councillors appointed proportionately by the Lead Local Flood Authorities in the Committee's area. Lincolnshire County Council has three seats on the Anglian (Northern) Committee and shares a further seat with North Lincolnshire. North Lincolnshire also represents Lincolnshire's interests on the Trent Committee.

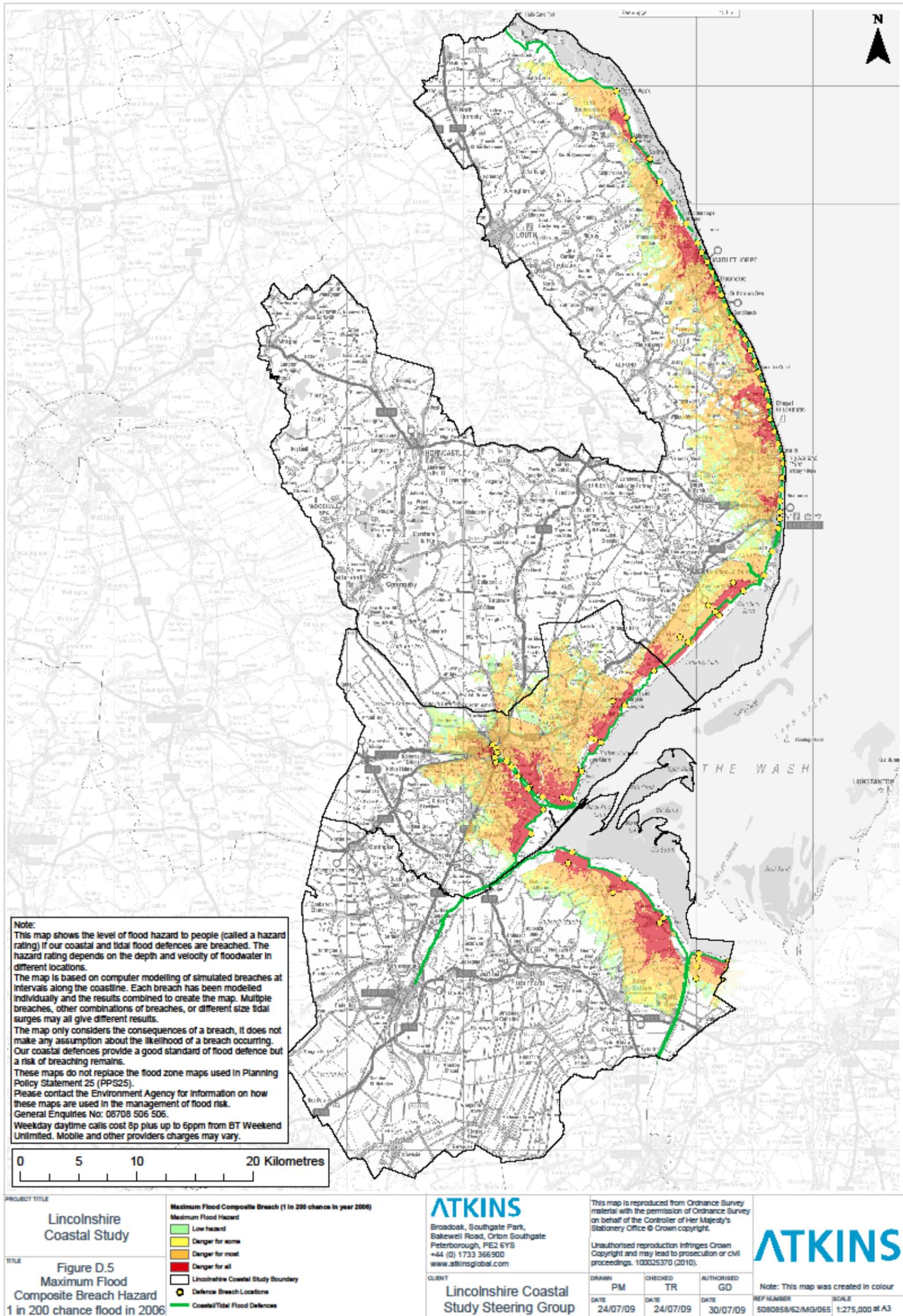
Annex D: Assessment of Flood Risk

D1: Coastal and river flood risk mapping



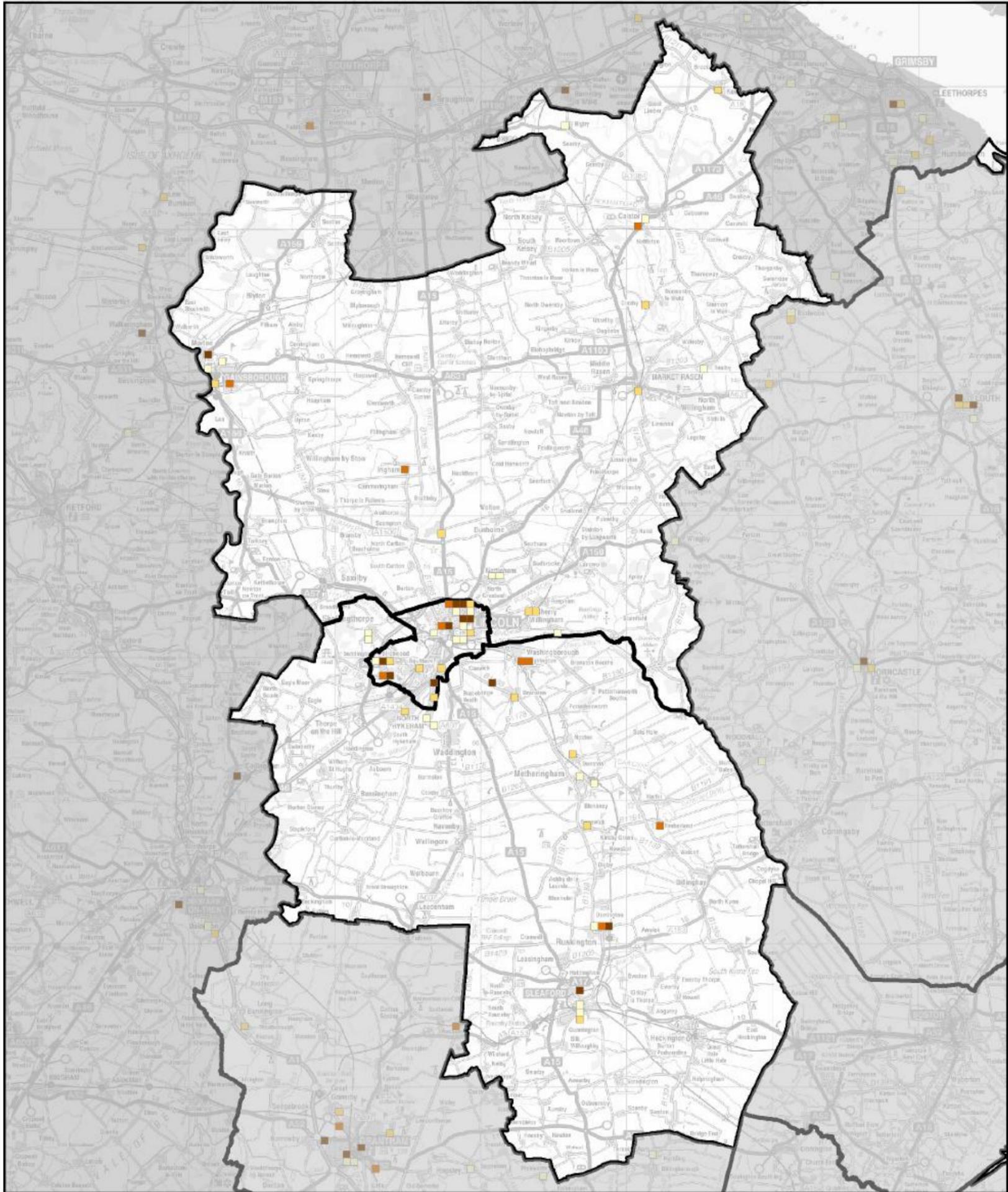
 <p>Environment Agency</p>	<p>Lincolnshire County Boundary</p> <p>Floodplain</p> <p>Formal Raised Defences (as shown on our published Flood Map)</p>	<p>0 4 8 km</p> 
<p>Area of Potential Interaction of Flood Sources</p>	<p>Floodplain behind raised defences represents area of potential interaction</p>	<p>Map created April 2011</p> <p><small>© Environment Agency copyright and / or database rights 2011. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2011.</small></p>

D2: Coastal hazard mapping



D3a: Surface water: preliminary flood risk assessment, Central Lincolnshire – initial areas where potential flood risk requires further investigation

NOTE: Map should be viewed at no larger than 1:50,000 scale



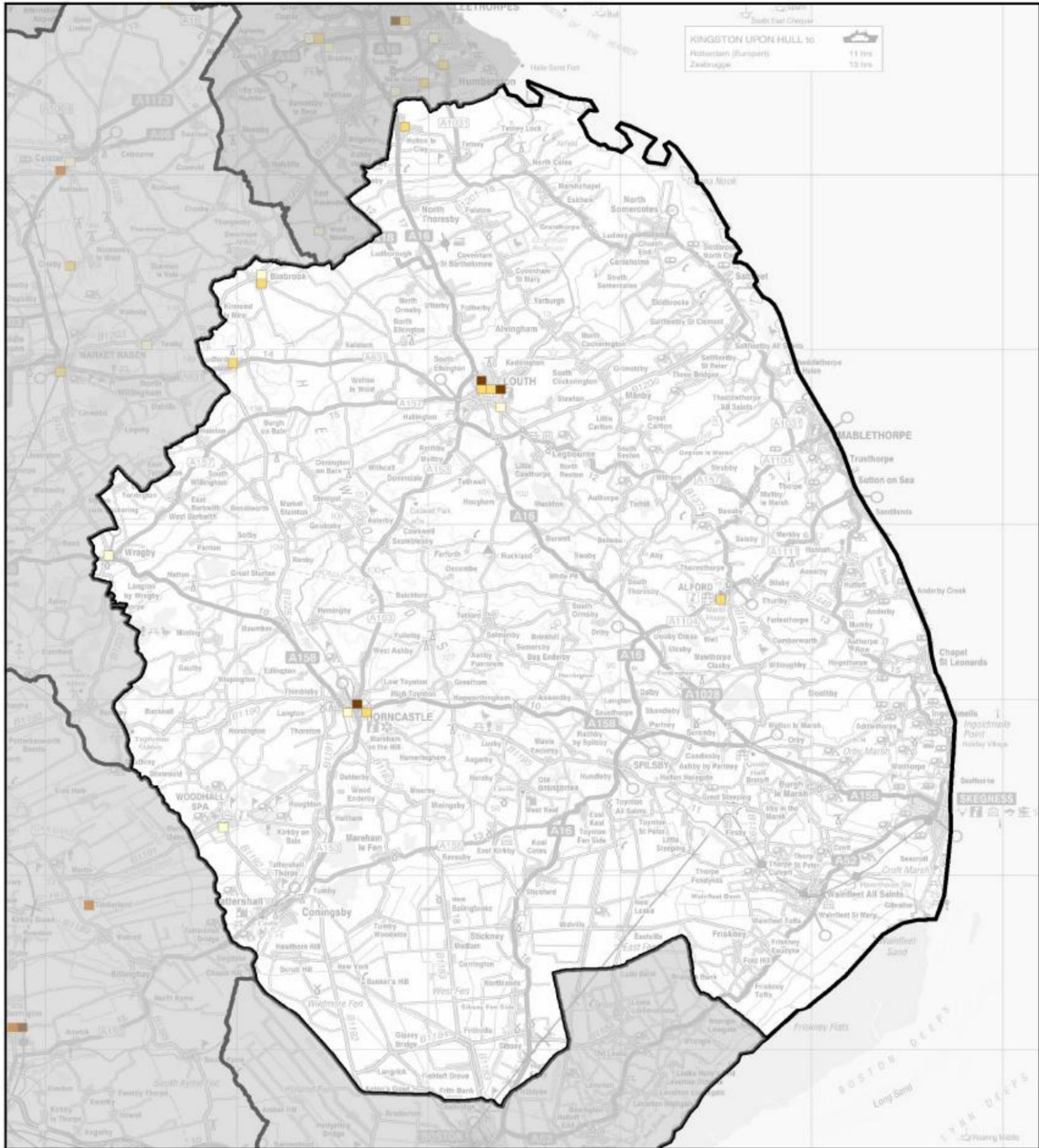
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



D3b: Surface water: preliminary flood risk assessment, East Lindsey – initial areas where potential flood risk requires further investigation

NOTE: Map should be viewed at no larger than 1:50,000 scale



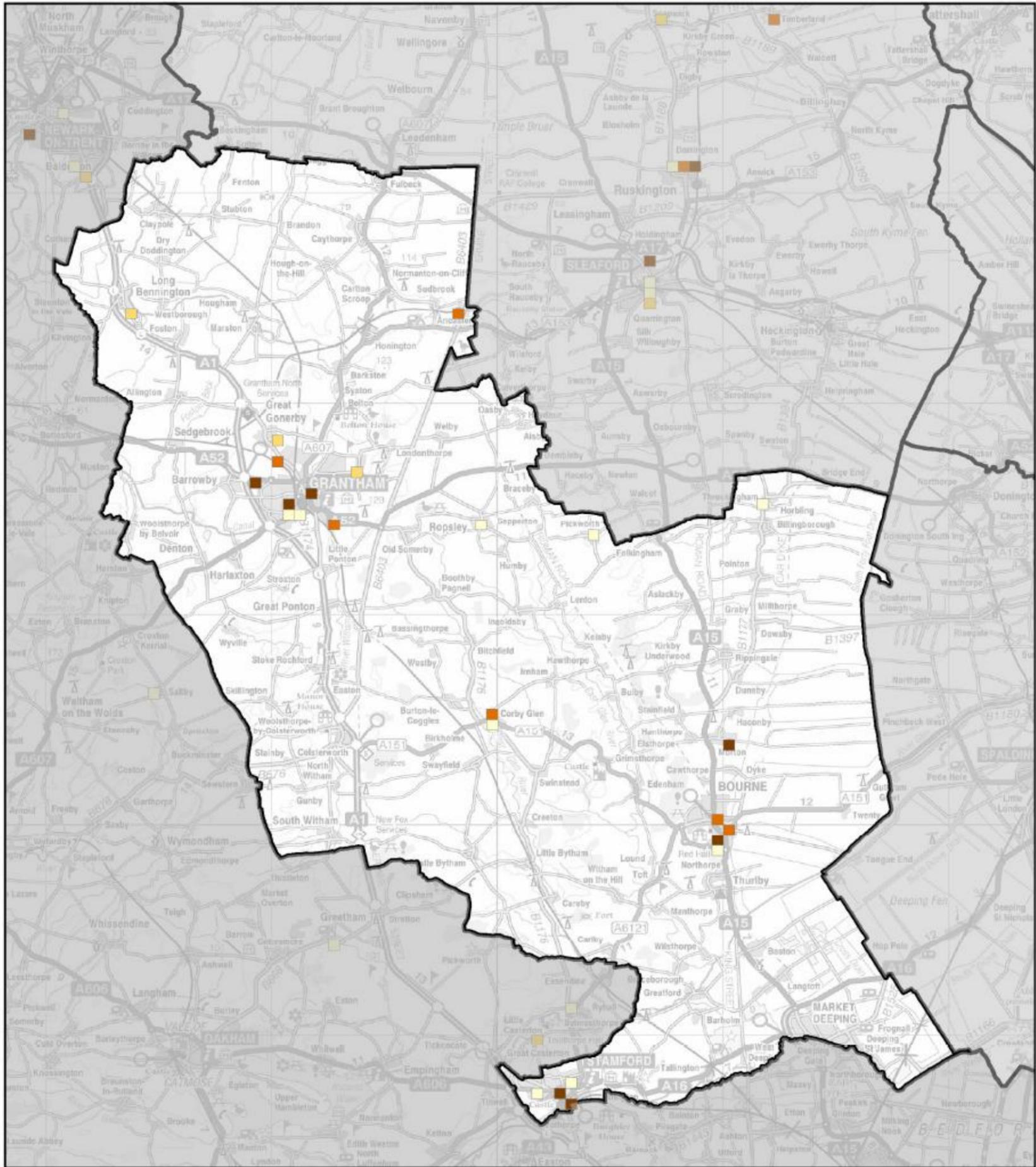
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



D3c: Surface water: preliminary flood risk assessment, South Kesteven – initial areas where potential flood risk requires further investigation

NOTE: Map should be viewed at no larger than 1:50,000 scale



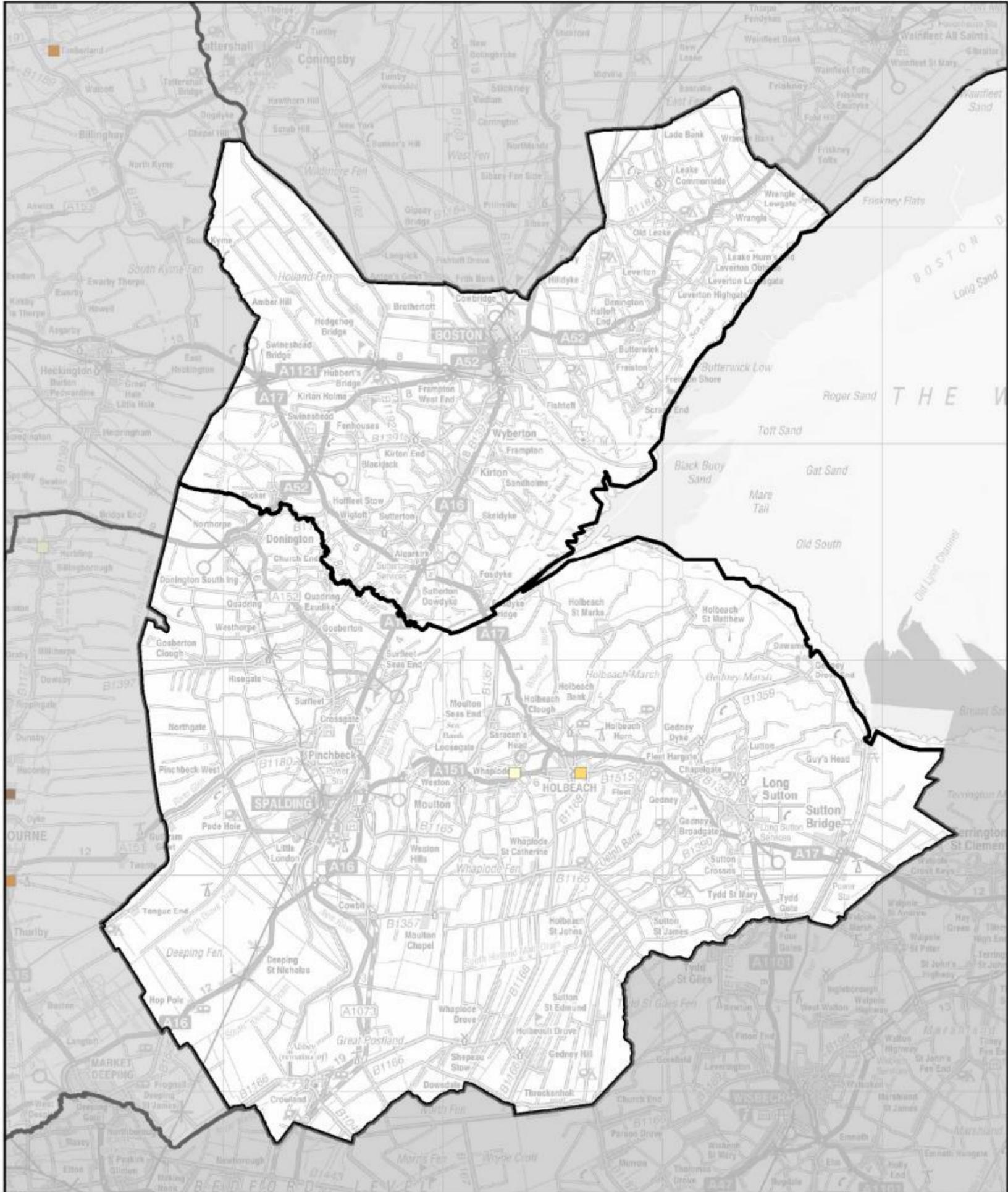
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



D3d: Surface water: preliminary flood risk assessment, South East Lincolnshire – initial areas where potential flood risk requires further investigation

NOTE: Map should be viewed at no larger than 1:50,000 scale

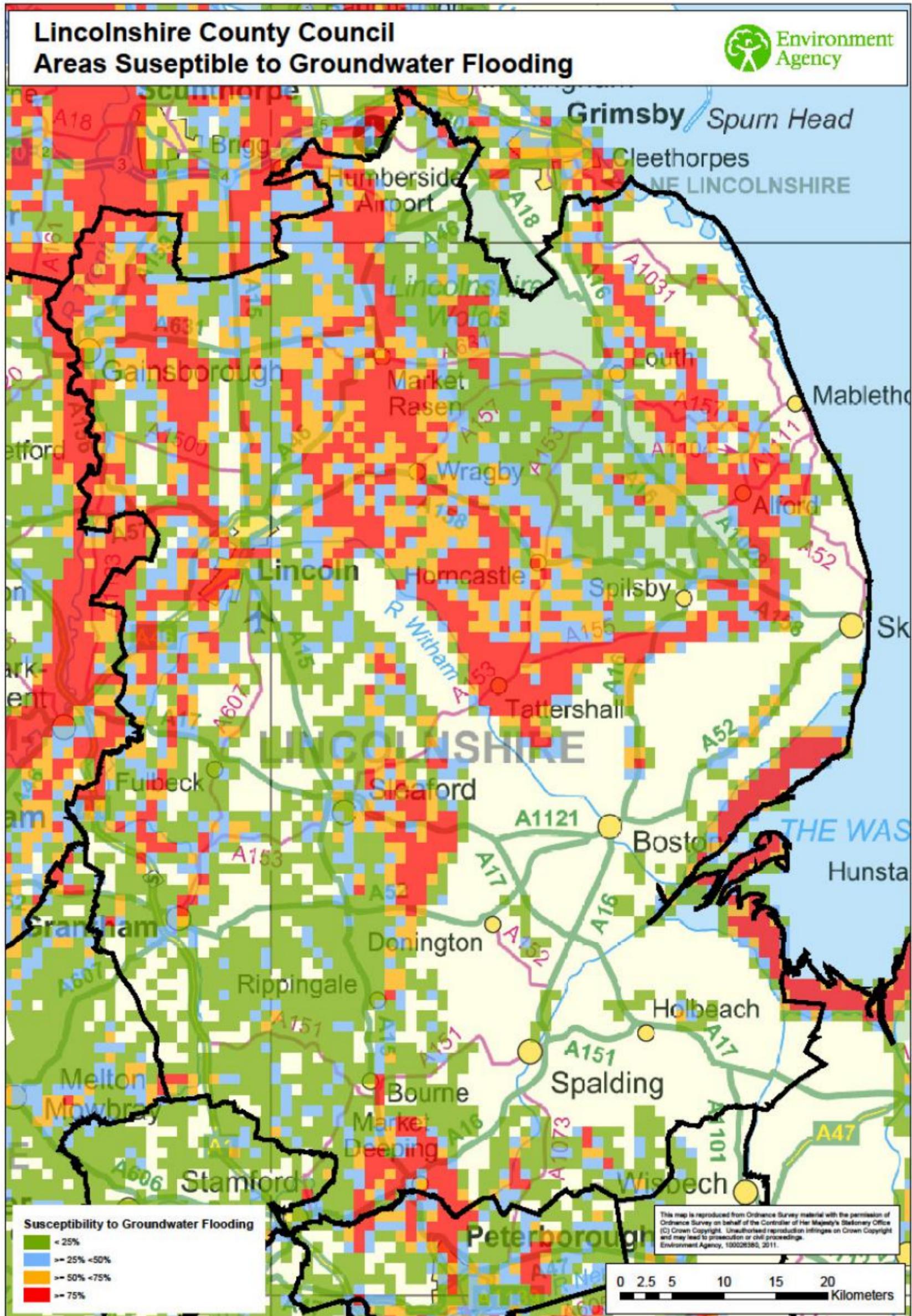


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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



D4: Groundwater flood risk



Annex E: The requirements in the Flood Risk Regulations 2009

The [Flood Risk Regulations 2009](#) came in to force on 10 December 2009. They transpose the EU Floods Directive into UK law.

The key provisions of the Regulations are

- to give responsibility to the Environment Agency to prepare Directive deliverables – preliminary flood risk assessments, maps and plans - for floods from the sea, main river and reservoirs
- to give responsibility to lead local flood authorities (unitary and county councils) to do the same for all other forms of flooding (excluding sewer flooding which is not caused by precipitation)
- preliminary flood risk assessments (PFRAs) to be prepared by the Environment Agency and LLFAs by 22 December 2011. These should, on the basis of Environment Agency and LLFA PFRAs, identify areas of significant flood risk. LLFAs submitted their PFRAs to the Environment Agency by 22nd June 2011.
- flood hazard and risk maps to be prepared by 22 December 2013 for identified areas of significant flood risk
- flood risk management plans to be prepared by 22 December 2015 for the same areas

LLFAs have submitted their PFRAs, and will need to submit hazard and risk maps and management plans (where required) to the Environment Agency six months before the specified December deadlines to allow for review, collation, publishing and reporting to the European Commission.

The assessment, mapping and planning cycle continues thereafter on a six yearly basis with the first review of the preliminary flood risk assessment due by 22 December 2017. Flood maps must be reviewed by 22 December 2019 and flood risk management plans by 22 December 2021. Each review must take into account the likely impact of climate change on the occurrence of floods.

These reviews will involve refreshing the PFRA in the same six yearly cycle. Since the PFRA will provide much of their evidence base, this will impact on the Local Strategies too, which will need to be adapted to accommodate any changed assessment of flood risk.

Annex F: Flood risk and land drainage management in the Fens

The Fens Area

The Fens cover a large area of eastern England, stretching from the Wash out to Lincoln, Peterborough and Cambridge. Five different rivers, the Witham, Welland, Glen, Nene and Ouse, carry water from surrounding uplands through the Fens and into the Wash.

Management Plans for the Fens

The Environment Agency has developed Catchment Flood Management Plans for the Anglian Region with the aim of taking a broad view of flood risk at catchment level over the next 100 years. Factors such as climate change, future development and changes in land use and land management were taken into account in developing sustainable policies for managing flood risk in the future.

The Fens area is covered by four different Catchment Flood Management Plans (CFMPs); one for each of the fenland catchments of the Nene, Welland and Glen, Witham and Great Ouse and also by the Wash Shoreline Management Plan (SMP). All five plans recommended that an integrated plan is produced specifically for the Fens in order to develop a sustainable, integrated and long term flood risk management approach for this landscape area. There was also a need for any future plan to bring together organisations and other plans and projects from across the Fens.

Since the development and approval of the CFMPs, the legislative framework for flood risk management landscape has changed considerably, providing opportunities to develop a more integrated approach to upland and lowland flood risk and drainage management from all sources.

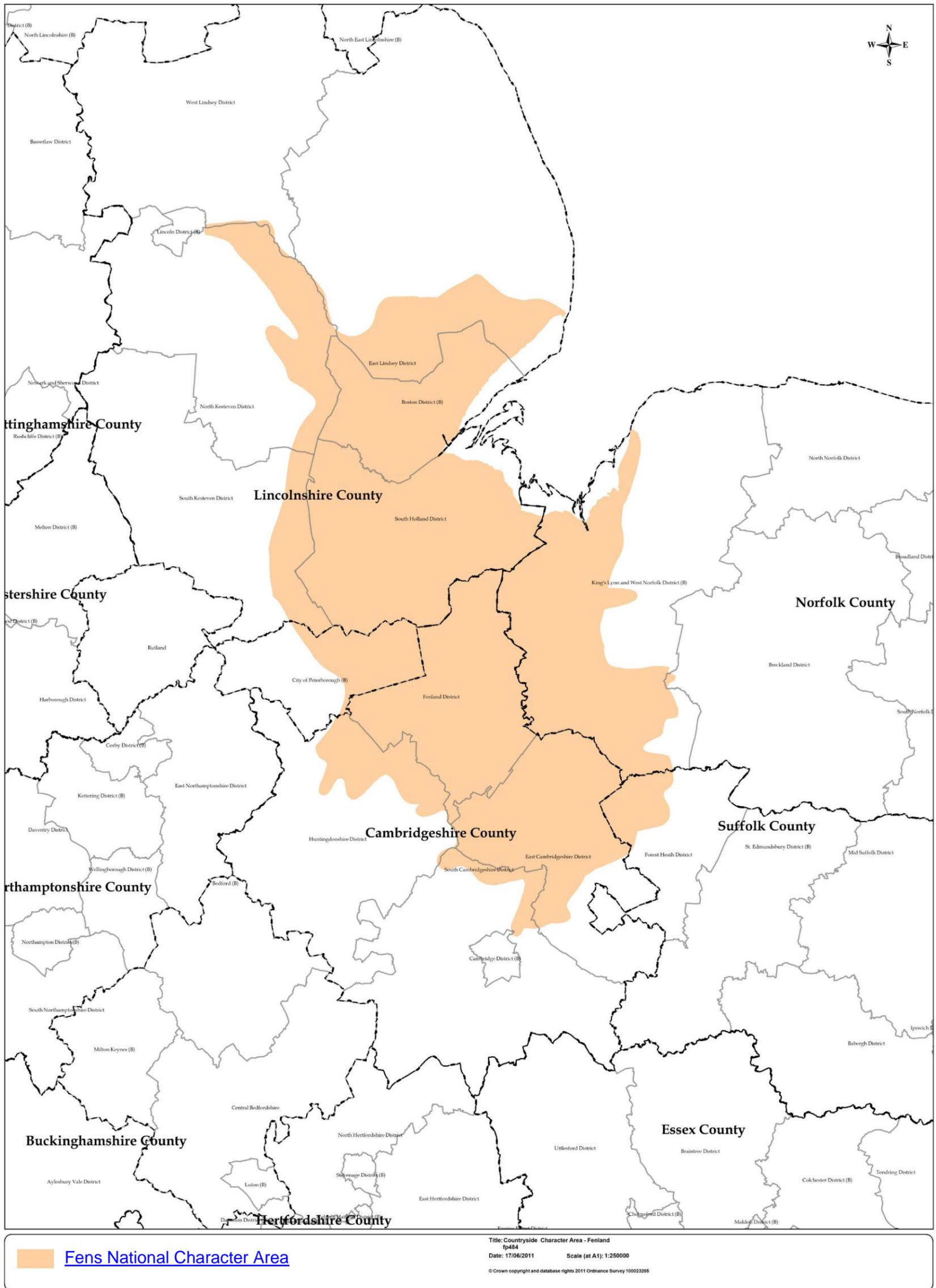
The introduction of the duty for LLFAs to produce Local Flood Risk Management Strategies (local strategies) provides an opportunity for integrating and delivering the aims for the Fens. Local strategies are considered an appropriate vehicle due to their key role in setting objectives and identifying priorities and funding needs for local flood risk management. Local strategies will also be driven by LLFAs in partnership, will undergo public consultation and will be informed by CFMPS, SMPs, SFRAs and other relevant strategic and local documents. It is therefore considered a more practical approach to ensure that flood risk and drainage management of fenland areas is co-ordinated across the relevant local strategies. This is in preference to creating an additional, overlapping single strategy for the Fens, managed within a national, rather than local governance framework.

Local strategies will integrate the needs and opportunities of the local Fens and fenland communities with those of the rest of the local LLFA area, and promote a consistent approach across the Fens as a whole. This consistency is crucial, for example, to IDBs, who often span more than one local authority and whose practices will be similar throughout their area. The LLFAs of

Lincolnshire, Peterborough, Cambridgeshire, Norfolk and Suffolk have therefore agreed to work together closely to achieve this aim. Forest Heath District Council has been involved on behalf of Suffolk County Council since Suffolk's fenland is principally located in this area.

Background to the Fens

Localised drainage took place in the fenland landscape from as early as the medieval period. However, large scale drainage of the Fens first began in the 17th Century, when the 'Fens' as we now know it began to take shape. Today this artificially drained landscape is home to approximately half a million people. The Fens cover an area of almost 1,500 square miles, divided between eleven District and five County Councils.



Well maintained coastal and fluvial flood defences are essential to providing the conditions in which Internal Drainage Boards can maintain extensive artificial drainage of the area. Across the Fens, IDBs maintain 3,800 miles of watercourse, 200 miles of watercourse embankment and 286 pumping stations. In addition there are over 60 miles of coastal sea walls and 96 miles of river embankments, maintained by the Environment Agency. The Fens area, therefore, has a high level of protection and is classified as a defended flood plain. Climate change, however, poses a serious threat to the Fens and a continued programme of investment in flood defences and drainage systems will be needed for existing standards of protection, including provision for climate change, to be maintained in the medium and long term.

The Internal Drainage Boards within the Fens have been established over many years because of the special water level and drainage management needs existing within this area, and the particular need for lowland and inland local flood risk management activities. These local works are funded in the main from funds levied locally by IDBs, and present an effective example of the Government's 'localism' agenda.

Well maintained coastal and fluvial flood defences, supporting an extensive drainage infrastructure are essential in promoting sustainable growth in the Fens. Housing, jobs and services that meet the needs of the market towns and the rural communities can only happen if drainage and flood risk is well managed. Growth in the Fens will need to be embraced in a sustainable way; balancing development needs with the need to promote and protect open spaces, natural habitats, landscapes, the built environment and the unique qualities of the Fens. It is therefore essential that 'Flood Risk Management Authorities', utilities and local communities continue to work closely with local planning authorities, so that consideration of sustainable drainage in particular and flood and water management in general are an integral part of the planning and development control process.

Farming contributes significantly to the success of the local economy, supporting a large number of businesses involved in the production of food and rural tourism. The important role that farming plays in the Fens is emphasized by the steady decline in self-sufficiency in the UK, and the Government's renewal of the food security agenda. The Fens account for 50% of all Grade 1 agricultural land in England, producing 37% of all vegetables and 24% of all potatoes grown in the country, as well as enough wheat to make 250 million loaves of bread every year. The area also supports significant livestock, dairying and outdoor pig production as well as about 18 million hens, ducks, turkeys and geese in the Lincolnshire Fens alone. This supports a large well-established food processing industry. It is critical, therefore, that appropriate flood risk and drainage management measures are taken to protect this nationally important food production area.

In addition to food production, the Fens is popular for tourism, attracting more than 15 million visitors a year. The Fens provide a unique and rich habitat for wildlife and include the Ouse and Nene Washes which while providing flood storage capacity, also retain important wetland for birds. There are also major

transport networks, road and rail, as well as houses, critical infrastructure, water, gas and electricity that would be affected if fenland areas were to flood.

The Fens also contain heritage sites and form three sides of the Wash, which is internationally designated for animal and plant biodiversity. As well as numerous local sites, ranging from SSSIs to Local Nature Reserves, there are important washland habitats, such the Cowbit and Crowland washes, and a major landscape scale [fenland restoration initiative](#) in the South Lincolnshire Fens, with links to the Fens Waterways Partnership and aspirations for restoration elsewhere, for example along the Witham close to Lincoln. Effective water level management is critical to maintain these areas in good condition, and can make a fundamental contribution to the opportunities that exist in the Fens for landscape-scale opportunities for fenland and washland restoration.

This Strategy is available online at

<http://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/implementing-a-strategy-to-manage-flood-risk-countywide-and-locally/103045.article?tab=downloads>

Hard copies are available on request. Postal enquiries should be sent to:

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