



PRCC.14 12/13

Prosperous Communities
Committee

18th September 2012

Subject: consultation draft Joint Lincolnshire Flood Risk & Drainage

Management Strategy 2012 - 2025

Report by: Director of Communities and Localism

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Purpose / Summary: To present members with the draft Joint

Lincolnshire Flood Risk & Drainage Management Strategy 2012 - 2025 for consultation and to seek views from Members for submission to Lincolnshire County Council prior to closure of the

consultation period on 21st September 2012

RECOMMENDATION(S):

1) To seek views of members on the *consultation draft* Joint Lincolnshire Flood Risk & Drainage Management Strategy 2012 – 2025 (Appendix A) to inform the Council's response to the consultation for submission to Lincolnshire County Council by 21st September 2012.

IMPLICATIONS

Legal: Lincolnshire County Council are designated Lead Local Flood Authority (LLFA) under the Flood and Water Management Act 2010. Responsibility to produce a flood risk management strategy is a duty under this act and a duty that rests with the LLFA. All flood Risk Management Authorities within Lincolnshire have signed a partnership agreement to work with each other in pursuit and fulfilment of flood risk management duties incumbent upon each partner organisation.

Financial: The Council will maintain an ear-marked reserve circa £125,000 that could be used to fund flood mitigation and prevention works identified in the common works programme, currently in development and due to be implemented in 2013.

Staffing: West Lindsey has assisted Lincolnshire County Council in development of this draft strategy with personnel supporting Task and Finish Groups.

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| Equality | and Divers | sity includin | g Human Rights: | Not applicab | le. |
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| Climate F | Related Ris | sks and Opp | ortunities: None. | | |
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| Title and report: | Location of | of any Back | ground Papers us | sed in the pr | eparation of this |
| Appendix | A: cons | ultation draf | ft Joint Lincolnshi | ire Flood Ri | sk and Drainage |
| | | gy 1012 to 20 | | | |
| Appendi | B : Apper | ndices to the | consultation draf | t Joint Lincol | nshire Flood Risl |
| | | | egy 1012 to 2025 | | |
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| Yes | No | X |
|-----|----|---|
| Yes | No | |

1 Background to the Strategy

Lincolnshire County Council is the Lead Local Flood Authority (LLFA) in Lincolnshire under new duties contained in the Flood and Water Management Act 2010. Among other strategic and operational responsibilities arising from this new role, Lincolnshire County Council is required 'to develop, maintain, apply and monitor a Local Flood Risk Management Strategy'.

The strength of the partnership arrangements established in Lincolnshire to address flood risk management means that this duty provides a further opportunity to develop a co-ordinated and strategic approach to responsibilities for flood risk and drainage management across the county.

As such, in Lincolnshire the Local Flood Risk Management Strategy is being developed as a <u>Joint</u> Flood Risk and Drainage Management Strategy to cover all forms of flooding – main rivers, surface water and coastal. The strategy will also provide a focal point to rationalise and integrate the wide range of existing strategies, plans and activity programmes that currently exist at county level across the partnership and relevant to all types of flooding.

Each of the partners that has signed up to the Lincolnshire Flood Risk and Drainage Management Partnership Agreement have provided personnel and expertise to support Lincolnshire County Council, through a number of task and finish groups, to develop the various facets of the strategy document. Following development, all the facets of the strategy will be brought together into one cohesive document for Lincolnshire.

The Strategy in total will consist of three parts, as shown below

1. Strategic Plan (this document)

The overall approach that the Lincolnshire Flood Risk and Drainage Management Partnership will implement from 2012 to 2025 to manage flood risk and drainage

For completion by December 2012

2. Tactical Plan

A technical manual including:
definitions of working arrangements;
systems for prioritising resources;
common criteria for assessing flood
risk; technical specifications for asset
maintenance and replacement;
procedures and criteria for
investigating incidents of flooding

For completion by December 2012

3. Common Works Programme

The operational action plan for the Strategy: a costed, three-year schedule of works to be carried out by all flood risk management authorities, individually and jointly, prioritised according to levels of flood risk. This will be revised annually.

First implementation April 2013

2 The Strategic Plan

This report presents the first part of the strategy document - the strategic plan (at **appendix A**). This sets out the overall direction, outcomes and objectives for the Lincolnshire Flood Risk and Drainage Management Partnership over the life of the Strategy. Lincolnshire County Council gained Executive approval for release of the strategic plan for three month public and stakeholder consultation which ends on 21st September 2012.

Consultation will include a programme of public and stakeholder workshops and events across the county. The draft Strategy is available for download and comment via the Lincolnshire County Council website and hard copies can be provided on request.

The Strategic plan is scheduled for completion by December 2012.

3 The Tactical Plan

It is the intention of Lincolnshire County Council that the Tactical Plan will be completed in draft form and released for comment along with the scoping report that will commence the Strategic Environmental Assessment.

The Tactical plan is scheduled for completion by December 2012.

4 The Common Works Programme

Probably the most important part of the strategy will be the common works programme. The common works programme is being developed via the same partnership mechanism as the overall strategic and tactical plan and will become operational from 2013-14 onwards. Works identified in the programme will be delivered via the locality Flood Risk and Drainage Management (FRDM) Groups - Central Lincolnshire FRDM Group in the case of West Lindsey

The common works programme will be funded from a variety of national, regional and local funding mechanisms. The Council has maintained an earmarked reserve circa £125,000 that could be called upon to fund flood mitigation schemes identified in the common works programme.

The common works programme will cover the operational activities of all risk management authorities and seeks to deliver a more efficient use of flood risk management funds and resources already deployed across organisations in Lincolnshire. Securing operating efficiencies that can be ploughed back into additional flood risk management works is seen as a core part of the joint Strategy.

5 The salient features of the Strategy document

Vision and Strategic Outcomes (page 7):

The vision encapsulates the broad principles of flood risk management for the county promoting community and business engagement in the management of risks and seeking to build on effective partnership working that has made Lincolnshire stand out nationally as an exemplar.

The strategic outcomes, 9 in total, identify flood risk management priorities and are worthy of close scrutiny by members to ensure these align with our own corporate and community priorities (page 7).

Strategic Programme (page 7):

Worthy again of close scrutiny by Members because this is the list of actions, 11 in total, that will be relied upon by partners to deliver the strategic outcomes. The common works programme and the establishment of a partnership resource to deliver it are likely to evoke challenging discussions amongst partners. Members should also note that partnership activity will be monitored and overseen by the County Joint Flood Risk and Drainage Management Scrutiny Committee.

Engagement of the insurance industry to improve their understanding of flood risk in the county has merit and will support residents in our communities 'at risk of flooding'.

Guiding Principles (page 9):

This section of the strategy sets out how partners will work together to deliver the programme of works that will achieve the outcomes of the strategy. There are 11 guiding principles the first three of which seek to cement the partnership approach to delivery, coordination, governance and scrutiny (Principles 1 to 3).

There are guiding principles referring to the use of resources to fund works, deployment on a risk based approach using common data and a shared assessment of risk across all flooding sources. Members may wish to consider how this may influence the deployment of resources locally when considering flood risk impact on other areas in the county (Principle 5 and 11).

Mitigation schemes will be delivered by the organisation best placed to do so with contributions being sought from partners locally and Government nationally (Principles 6 and 7).

Community resilience is at the forefront of the strategy which supports our own Council approach to 'Localism'. Reducing the number of people and homes at flood risk, reducing the impact of flooding and building community resilience are important guiding principles consistent with our priority approach to 'places'. Communities will also

be supported to take their own steps to become more resilient and will be consulted when determining what is best for them (Principles 4 and 8).

Finally, coordination with planning and development control policy will be core principles ensuring that this strategy is consistent with local development frameworks and the Core Strategy providing a framework for Local Planning Authorities to implement policy and practice decisions. (Principles 2 and 9)

Roles and Responsibilities (page 11):

Roles and responsibilities are defined by law and the Lincolnshire Flood Risk Management and Drainage Partnership Agreement. These are articulated in the strategy on pages 11 to 17.

Members may be particularly interested to note the statutory responsibilities placed upon flood risk management authorities, specifically District Council's on page 14 and to remind themselves of the partnership structure arrangements on pages 15 to 17.

Setting the Direction (page 20):

The strategy sets out why existing plans a strategies to manage flood risk across the county have developed in a disparate and sometimes inconsistent way leading to a complicated picture which this strategy seeks to unravel.

A challenge that Members may wish to contemplate when considering how all of these strategic plans can be integrated is how the strategy will influence investment decisions of Anglian Water Services and Severn Trent Water, the two water and sewerage companies that cover Lincolnshire (page 23).

Pages 23 to 25 contain a review of the methodology used to assess flood risk from different, individual sources and how these assessments can influence the assessment of flood risk from other sources. It is evident that the science of flood risk assessment is limited however, there is little mention within the strategy or more importantly in the Strategic Programme illustrating how this deficiency might be addressed to improve our flood risk assessment methodology.

Methods of delivery (page 26):

Excluding Government grants, public funds available for flood risk and drainage management in Lincolnshire amounts to £21m. The formula used to assess bids for national funding for works, known as 'Grant in Aid' has recently changed so that where there are contributions from local funds, these are more likely to attract national funding top up. Hence the Council has maintained an ear-marked reserve to contribute

to local schemes which might not otherwise attract national funding (page 27).

The strategy seeks to drive efficiencies in the deployment of resources to manage flood risk across the county through prioritisation via the common works programme. The aim is to deliver 10% efficiencies on the 2013/14 baseline position, with savings re-invested into flood risk management (page 27). To achieve this, locally raised funds will be ringfenced within the partnership to priority schemes identified in the common works programme.

The principles behind a risk-based, flexible approach to the deployment of resources across the county is articulated on page 28 but will be covered in more detail in the Tactical Plan. Page 29 outlines the prioritisation principles in order of importance as risk to life, risk to health then risk to property. There is also an argument that the value of Lincolnshire's agricultural land assets is given higher priority than 'land' generally in Government funding decisions.

Data management and providing information sets out the strategic intent to better coordinate and manage flood risk data held by various agencies across the county. This will enable the more effective and consistent assessment of flood risk and will ensure local people, insurance companies and developers have access to the best available intelligence relating to flood risk and local flood risk management assets (page 29 and 30. The duty to investigate flooding incidents has already been invoked and rests with the Lead Local Flood Authority.

Managing Cooperation across administrative borders and integrating plans and strategies is of vital importance in managing water systems. On pages 30 to 32 are details of how this has been achieved in the East of England.

Strategic contribution to the wider environment. This section identifies how this strategy will contribute and integrate with sustainable development principles. The strategy will contribute to the wider environmental objectives by ensuring not only the proper consideration of possible harm to the environment but also opportunities for proactive improvements. Wider objectives include ecological status, biodiversity, adaption and mitigation of climate change and sustainable water resource management (page 32).

Strategy Review sets out how delivery will be managed through the partnership framework. Progress reports will be submitted by the Management Group to the Strategy Group and Scrutiny Committee on a six monthly basis. The works programme will be reviewed annually and the strategy every 5 years to ensure that a focussed, forward programme is being sustained at strategic, tactical and operational levels (page 33).

Members of this committee may wish to consider how they wish to be kept informed of progress of activities happening countywide.

6 Conclusion

The Joint Lincolnshire Flood Risk and Drainage Management Strategy will provide the strategic direction and works programme for the Lincolnshire Flood Risk and Drainage Management Partnership. It brings together flood risk management work streams across Lincolnshire many of which have been recognised by Defra and the Local Government Association as national best practice.

While meeting statutory obligations, the development of the Local Flood Risk Management Strategy as a genuinely joint programme with a shared vision for flood risk management into the future will secure and maximise the benefits already accruing from existing work already underway in this area.

7 Recommendation

To seek views of members on the draft Joint Lincolnshire Flood Risk & Drainage Management Strategy 2012 – 2025 (Appendix A) to inform the Council's response to the consultation for submission to Lincolnshire County Council by 21st September 2012.

Lincolnshire Flood Risk and Drainage Management Partnership Framework

Lincolnshire Joint Flood Risk and Drainage Management Strategy

Draft v.6.0

Consultation Draft

23rd May 2012

Lincolnshire Joint Flood Risk and Drainage Management Strategy

Draft v.6.0: Consultation Draft

STRATEGIC PLAN

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Annex B: Risk management authorities and their functions

Annex C: Governance and accountability of Risk Management Authorities

Annex D: Assessment of Flood Risk

Annex E: The requirements in the Flood Risk Regulations 2009

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

Consultation Questions

This consultation draft Strategy includes a number of questions that are designed to help readers comment on the document, but not to guide or restrict what is said. The first six questions below are there to help us understand better if and how experiences or perceptions of flood risk are different for different people in our communities.

Subsequent questions are inserted at various points of the document to break it up into manageable sections and to provide opportunities to comment on specific aspects of the draft Strategy.

| Q. 1: | Please indicate how you are responding to this survey. Please tick one box only. | |
|--|--|--|
| | As an individual | |
| | On behalf of my local community (please state which one) | |
| | On behalf of an organisation (please state which one) | |
| Q. 2: | Please provide your postcode | |
| Q. 3a | : What is your current understanding of flood risk in your locality? | |
| | I am not at risk of flooding | |
| | I have been affected by flooding before(please give details below) | |
| | My local area has been affected by flooding before (please give details below) | |
| | I am aware that I am at risk, but I have not been affected before | |
| Q. 3b: When/where were you affected (if applicable)? | | |
| Date(| Date(s): | |
| Village | Village or town: | |

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| Q. 3c | : Which part of your property/local amenity did the flooding affect? Please tick all that apply. |
|-------|--|
| | The road |
| | Gardens and/or fields |
| | Outbuildings |
| | The property internally |
| | Local amenities like schools, hospitals or doctors' surgeries |
| | Infrastructure, like electricity substations |
| | My business property |
| | |
| Q. 4: | Where would you go to find out more information about flooding? Please tick all that apply. |
| | Lincolnshire County Council |
| | District Councils |
| | Environment Agency |
| | Internal Drainage Boards |
| | Town and parish councils |
| | National Flood Forum |
| | Fire and Rescue Service |
| | Police |
| | NHS |
| | Other (please state) |

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| Q.5: | What steps, if any, have you taken to prepare for flooding? Please tick all that apply. |
|-------|---|
| | Found out more information on flood risk to my property |
| | Prepared a flood plan |
| | Signed up for flood warnings |
| | Attended a local action group |
| | Purchased flood resilience equipment |
| | Become a local flood warden |
| | Nothing, as I see it as the responsibility of the authorities |
| | Other (please state) |
| Ш | |
| Q. 6: | How would you prefer to receive information about being prepared for flooding? |
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| Q. 6: | How would you prefer to receive information about being prepared for flooding? |
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| Q. 6: | How would you prefer to receive information about being prepared for flooding? Internet Local radio/television |
| Q. 6: | How would you prefer to receive information about being prepared for flooding? Internet Local radio/television Local paper |

1 Aims and Objectives

A vision for the future of flood risk and drainage management in Lincolnshire: how flood risk and drainage will be managed by 2025

We will work with our communities to manage the likelihood and impact of flooding for the social, economic and environmental benefit of Lincolnshire. Local people and businesses will be able to participate in managing the risks that affect them, and Lincolnshire will continue to be a national exemplar for effective partnership in flood risk and drainage management.

Strategic outcomes: what will be in place when the vision is achieved

- 1 We will establish a co-ordinated programme of flood risk and drainage management, including flood risk from all sources, integrating existing strategies, plans and assessments into one Strategy by 2017
- 2 Partners' resources will be used in the most efficient way possible, maximising use of externally available resources, improving the use of existing local resources, and securing new resources locally and nationally
- 3 The likelihood and impact of flooding from all sources will be reduced from current levels by 2025. Any increase in the risk of flooding as a consequence of climate change will be mitigated
- 4 Arrangements for responses to emergency situations are fully integrated with the way in which partners manage longer-term strategic thinking, as well as day-to-day operational delivery in normal conditions
- 5 The Lincolnshire Flood Risk and Drainage Management Partnership will work with local communities to develop and deliver fully integrated flood risk and drainage management services, beginning with a common works programme in 2013
- 6 Local communities will be more aware of flood risk, and in partnership with risk management authorities, will take steps to minimise that risk through individual and community action.
- 7 Strategic development across the county will integrate consideration of flood risk and sustainable drainage into planning and development control systems; inappropriate development which could increase flood risk will be avoided, as will inappropriate development in areas of significant flood risk.
- 8 Flood risk and drainage management will be more accountable to the public through local democratic process, and through more freely available information about flood risk and measures undertaken to control it.
- 9 Flood risk and drainage management will contribute to better water quality and wider environmental benefits

Strategic programme: how we will arrive at our vision and outcomes

1 The Lincolnshire flood risk asset register and public record will be online and operational by August 2012, providing partners and the public with information about flood risk assets managed by all risk management authorities

Outcomes 1, 4, 6, 8

2 Lincolnshire will have a single assessment of flood risk from all sources by April 2013, identifying priorities for works and further investigation

Outcomes 1, 3, 4, 5, 7

3 The Lincolnshire Common Works Programme will commence in 2013 as a three-year, annually reviewed rolling programme

Outcomes 1, 2, 3, 5, 9

4 A 'partnership resource' will be established from 2013-14, co-ordinating a number of existing local funding streams and resources to reduce bureaucracy and increasing the amount of funding available to be deployed on priorities within Lincolnshire

Outcomes 2, 3, 5

5 The County Council will be established as the sustainable drainage approving body, with agreed mechanisms to work with local planning authorities and the new National Planning Policy Framework, by October 2013

Outcomes 1, 2, 7, 9

6 Partnership activities will continue to be monitored and overseen by the Joint Flood Risk and Drainage Management Scrutiny Committee, while key decisions about priorities for the partnership will be taken through democratically accountable bodies at local level

Outcomes

7 An integrated partnership communications and engagement strategy will be established in 2013 to ensure open, honest and consistent two-way dialogue is maintained with communities and businesses

Outcomes 5, 6, 8

8 We will actively engage with the insurance industry to improve their understanding of flood risk, and, by 2013, to provide local people with an accurate picture of local flood risk to present to their insurers

Outcomes 3, 5, 6, 7

9 The Preliminary Flood Risk Assessment will be reviewed by June 2016

Outcomes 1, 2, 3, 7

10 The Strategy will be reviewed by April 2017, and will integrate all major strategies and plans addressing flood risk management, land drainage and water level management.

Outcomes 1, 2, 3, 4, 5, 7, 8, 9

11 Implementation of policies for coastal management agreed in Shoreline Management Plans by 2025

Outcomes 1, 2, 3, 7, 9

Guiding Principles: how we will work together to achieve the vision and objectives

1 The Local Flood Risk Management Strategy is the statutory responsibility of the Lead Local Flood Authority, but as a comprehensive joint approach the Lincolnshire Joint Flood Risk and Drainage Management Strategy is owned and agreed by all parties to the Flood Risk and Drainage Management Partnership

Outcomes 1, 4, 7

2 The Strategy provides a single, overarching focal point to co-ordinate all strategic and operational flood risk and drainage management within Lincolnshire. It will act as the point of linkage between the National FCERM Strategy and the local level, as well as with existing strategies and plans, such as the Shoreline Management Policies, Catchment Flood Management Plans and Local Development Frameworks (Local Plans).

Outcomes 1, 4, 5, 7, 9

3 Governance will be undertaken through the Strategy Group and Management Group of the Lincolnshire Flood Risk and Drainage Management Partnership, with member scrutiny through the Joint Flood Risk and Drainage Management Scrutiny Committee.

Outcomes

4 The purpose of the Strategy is to increase the safety of people across Lincolnshire by reducing the number of people at risk of flooding, increasing the resilience of local communities, and reducing the impact of flooding

Outcomes 3, 6

5 Resources will be prioritised on the basis of risk, using a single dataset common to all partners and a shared assessment of flood risk across Lincolnshire, covering all sources of flooding.

Outcomes 1, 2, 5, 7, 9

6 We will seek contributions to local schemes to ensure we maximise resources, and will seek to maximise the amount of national resources drawn into Lincolnshire.

Outcomes 2, 6

7 Works will be undertaken by the organisation best placed to provide costeffective and appropriate delivery.

Outcomes 1, 2, 5

8 We will support local communities to take steps to improve their own resistance and resilience to flooding, and to determine their own preferred options for doing so.

Outcomes 5, 6, 7, 8

9 As the single focal point for setting out the agreed countywide priorities for flood risk and drainage management, the Strategy will provide a consistent framework for Local Planning Authorities and development control in developing and implementing policy and practice.

Outcomes 1, 7

10 Partners will share a common set of values and behaviours, based on trust, openness and a shared ambition to work together to achieve the best results for the communities that we serve

Outcomes 5, 6, 8

11 We will direct our resources to where the risk to local communities is highest. We will meet our national obligations, but will prioritise local needs and will place public accountability at the centre of what we do.

Outcomes 3, 5, 6, 8

Timeline

| August 2012 | Public register of flood risk management assets online and available |
|---------------|--|
| June 2012 | Consultation draft of Strategy published |
| Summer 2012 | Public and stakeholder consultation on Strategy |
| December 2012 | Strategic Plan & Tactical Plan published |
| April 2013 | Common works programme becomes operational, |
| | prioritised using single assessment of flood risk from all sources |
| April 2013 | Integrated partnership communications and engagement strategy operational |
| June 2013 | Strategy provides evidence base for householders to |
| Julie 2015 | present to insurers |
| October 2013 | County Council established as sustainable drainage systems approving body (SAB) – depending on date of commencement of this section of the legislation |
| April 2014 | Establishment of 'partnership resource' to improve efficiency of use of resources |
| June 2016 | Preliminary Flood Risk Assessment reviewed |
| April 2017 | Strategy reviewed and revised, with greater integration of currently existing strategies and plans |
| April 2025 | The likelihood and impact of flooding from all sources will be reduced from 2012 levels |
| December 2025 | Completion date for implementation of first stage of agreed coastal management policies |

Q.7: Are the vision, outcomes and guiding principles right? Is there anything missing? Is there anything that should be taken out?

2 Roles and Responsibilities

A Joint Flood Risk and Drainage Management Strategy for Lincolnshire

Lincolnshire County Council, as the Lead Local Flood Authority for Lincolnshire, is required by law to develop, maintain, apply and monitor a Local Flood Risk Management Strategy (see **Annex A**). The strength of our partnership arrangements in Lincolnshire means that this is an opportunity to develop a co-ordinated approach for all organisations with responsibilities for flood risk and drainage management: a Joint Flood Risk and Drainage Management Strategy for Lincolnshire.

The Strategy consists of three parts, as shown below

1. Strategic Plan (this document)

The overall approach that the Lincolnshire Flood Risk and Drainage Management Partnership will implement from 2012 to 2025 to manage flood risk and drainage

For completion by December 2012

2. Tactical Plan

A technical manual including:
definitions of working arrangements;
systems for prioritising resources;
common criteria for assessing flood
risk; technical specifications for asset
maintenance and replacement;
procedures and criteria for
investigating incidents of flooding

For completion by December 2012

3. Common Works Programme

The operational action plan for the Strategy: a costed, three-year schedule of works to be carried out by all flood risk management authorities, individually and jointly, prioritised according to levels of flood risk. This will be revised annually.

First implementation April 2013

A new national framework

In 2007 Lincolnshire, along with other parts of the UK, experienced unusually heavy rainfall. This led to serious flooding in Louth, Horncastle and parts of Lincoln, as well as in numerous other locations in the north and east of the county. Following on from other similar events since 2000, the 2007 floods prompted the Government to commission a review of flood risk management in England and Wales by Sir Michael Pitt, who published his final report: 'Learning Lessons from the 2007 Floods' in June 2008.

The report called for urgent and fundamental changes in the way flood risk is managed in the country. Its recommendations were accepted in full by the

Government in 2008, and led to a new Act of Parliament, the <u>Flood and Water Management Act</u> (2010). Together with the <u>Flood Risk Regulations 2009</u>, this establishes a new national and local approach to managing the risk of flooding.



A partnership between the Environment Agency and local authorities across the country lies at the core of the new arrangements. The Environment Agency is charged with maintaining a strategic overview of flood risk management throughout England. This is articulated through a <u>National Flood and Coastal Erosion Risk Management Strategy</u>.

County Councils and Unitary authorities (Lead Local Flood Authorities) are responsible for leadership and co-ordination of their own and other authorities' work on flood risk management locally, managed through a Local Flood Risk Management Strategy. This must be consistent with the National Strategy but should respond to local needs and circumstances. This strategy is therefore an important part of a new national system, as well as a key element in developing Lincolnshire's strong partnership arrangements.

Risk management authorities and their functions

A number of organisations are given a range of new duties and responsibilities under the new legislation. The table below summarises the key existing and new responsibilities for the relevant authorities operating in Lincolnshire, although some of these duties, for example the role of sustainable drainage system approving body, are not expected to be implemented until 2013 at the earliest.

| Authority | Risk Management Functions |
|---------------------------|--|
| Environment | strategic overview for all forms of flooding |
| Agency | development of National Strategy for Flood and Coastal Erosion Risk Management (FCERM) to cover all forms of flooding |
| | conversion of Regional Flood Defence Committees into Regional Flood and Coastal Committees with new remit to include coastal erosion issues |
| | powers to request information in connection with FCERM functions |
| | power to designate structures and features that affect flooding or coastal erosion |
| | duty to exercise FCERM consistently with the national and local strategies |
| | duty to report to Ministers on FCERM including implementation of the strategies |
| | statutory consultee to the sustainable drainage approving body on sustainable drainage |
| | responsibility for coastal flooding |
| | responsibility for fluvial flooding from main rivers |
| | duty to contribute to sustainable development in discharging their FCERM functions |
| | ability to issue levies to lead local flood authorities: levies can now also apply to coastal erosion issues as well as flooding |
| | updated provisions for the regulation of reservoirs |
| County or Unitary Council | development, maintenance, application and monitoring of Local Flood Risk Management (FRM) Strategy powers to request information in connection with FRM functions |
| (Lead Local Flood | duty to investigate and publish reports on flooding incidents in its area (where appropriate or necessary) to identify which authorities have relevant FRM functions and what they have done or intend to do |
| Authority) | duty to maintain a register of assets which have a significant effect on flood risk, in the view of the lead local flood authority; |
| | power to undertake works to manage flood risk from surface runoff or groundwater |
| | power to designate structures and features that affect flooding |
| | responsibilities as a Sustainable Drainage (SuDS) Approval Body (SAB) with responsibility for approval, adoption and maintenance of new sustainable drainage systems |
| | responsibility for consenting to third party works on ordinary watercourses that may affect water flow (where there is no Internal Drainage Board) |
| | duty to exercise FDERM functions consistently with the national and local strategies |

| | duty to contribute to sustainable development in exercising FCERM functions |
|-------------------|--|
| Internal Drainage | power to designate structures and features that affect flooding or coastal erosion |
| Board | duty to act consistently 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 Internal Drainage Boards |
| | statutory consultees to the sustainable drainage system approving body on sustainable drainage |
| | power to undertake works on ordinary watercourses flooding within their boundary and, with the Environment |
| | Agency's consent, the sea |
| District Council | power to designate structures and features that affect flooding or coastal erosion |
| | duty to act consistently with local and national strategies |
| | duty to be subject to scrutiny from lead local flood authorities' democratic processes |
| | power to undertake works on ordinary watercourses and, with the Environment Agency's consent, the sea |
| Water and | duty to have regard to national strategies and to have regard to local strategies |
| Sewerage | duty to be subject to scrutiny from lead local flood authorities' democratic processes |
| Company | adoption of private sewers. |

The existing and new responsibilities of these organisations are described in more detail in **Annex B**. In Lincolnshire, these organisations are all included within a strong established partnership, which was set up by agreement in advance of the new legislation.

Q.8: Is the description of organisations' current and new responsibilities clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out?

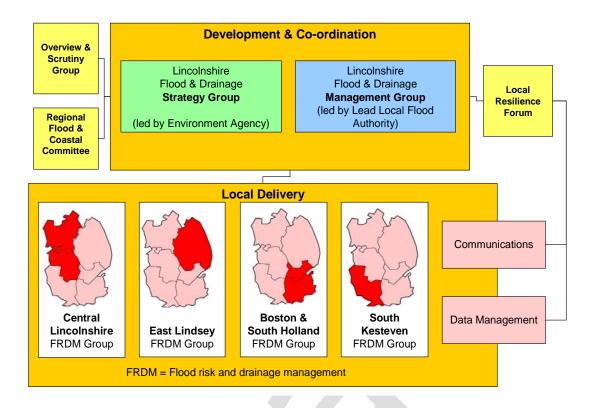
The Lincolnshire Flood Risk and Drainage Management Partnership

In advance of Government legislation, Lincolnshire County Council, the Environment Agency, Internal Drainage Boards, District Councils and Water Companies agreed to form a partnership to implement a more co-ordinated approach to the way flood risk is managed in Lincolnshire. This involves close joint working to deliver flood protection and prevention schemes on the ground, as well as strategic co-operation to make sure that all relevant authorities are following common, agreed aims and objectives.

The partnership was developed during 2009 and was formally established in April 2010. Its members are:

- Lincolnshire County Council
- The Environment Agency (Anglian Region, Northern Area)
- The 14 Internal Drainage Boards operating in Lincolnshire
- The 7 District Councils in Lincolnshire
- The 2 Water and Sewerage Companies operating in Lincolnshire
- Natural England
- The Regional Flood & Coastal Committee (Anglian Region, Northern Area)
- The Lincolnshire Resilience Forum

The Partnership is organised to provide strategic co-ordination at a county level, as well as collaborative solutions to flooding and drainage issues at the local level. A full description of the way the Partnership works can be found here. As roles and responsibilities continue to develop, for example with the emergence of Local Nature Partnerships at county or unitary level, there is scope to keep membership under review to ensure all relevant parties can contribute effectively.



Decision-making, governance and public accountability

One of the most important aspects of the Pitt Review was the need to ensure greater local accountability in flood risk management, with more information available to local people so that they might become more involved in decisions taken in their area, as well being better able to take more responsibility for their own resilience to flooding. Equally important was the need for more clarity about who should be contacted in the event of a flooding incident and who should be responsible for responding.

The role of the Lead Local Flood Authority is intended to provide this clarity, through its co-ordination role in relation to local flooding. Each flood risk management authority retains its own accountability arrangements, and these are set out in more detail at **Annex C**.

In Lincolnshire our partnership arrangements build on these existing accountability arrangements by bringing all flood risk activities in the county together in the Flood Risk and Drainage Management Partnership.

The Partnership has well-established arrangements for decision-making at countywide and local level, with clearly differentiated levels of responsibility assigned to the Strategy Group, the Management Group and the Local Drainage Groups. Public accountability is further enhanced by the fact that the activities of the partnership are overseen by a joint Flood Risk Management Scrutiny Committee.

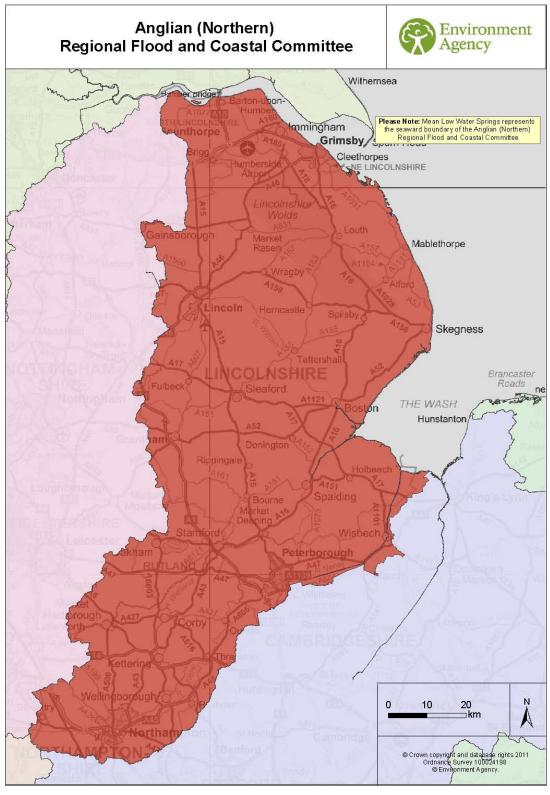
Joint Flood Risk and Drainage Management Scrutiny Committee

The Committee was established in 2010 to provide public scrutiny over the work of the partnership in Lincolnshire. It operates as a County Council scrutiny committee, and meets in public. An elected member from each of the seven District Councils in Lincolnshire is co-opted onto the Committee and representatives of each of the partner organisations also attend.

Developing a distinctive, democratically agreed set of priorities for Lincolnshire and a common programme of works to deliver them will create a framework within which the national Strategy can be implemented in a way that addresses local circumstances and needs in Lincolnshire. To this end, the close involvement of the Regional Flood and Coastal Committee is essential to ensure that the regional programme of works is sufficiently flexible to incorporate locally derived priorities.

Regional Flood and Coastal Committee

The <u>Regional Flood and Coastal Committee</u> (RFCC) provides governance over the Environment Agency on behalf of Defra, and it covers the northern area of the Environment Agency's Anglian region. The RFCC 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 to Lead Local Flood Authorities and Internal Drainage Boards for local drainage and surface water flood risk management works.



Most of Lincolnshire is covered by the Anglian (Northern) RFCC (above), but parts of the county along the east bank of the River Trent, including Gainsborough and the surrounding area, are covered by the Trent RFCC.

The Lincolnshire Local Resilience Forum

The <u>Lincolnshire Local Resilience Forum</u> is the senior management group for the co-ordination of emergency planning within Lincolnshire. The Forum is made up of senior executives and policy makers from the principal organisations with responsibilities for emergency planning, emergency response and recovery under the Civil Contingencies Act. This includes many of the organisations represented on the Flood Risk and Drainage Management Partnership, as well as the Police, the Fire and Rescue Service, the NHS and other key partners.

Although the Local Resilience Forum covers the whole spectrum of emergency events, the potential impact of an event such as coastal flooding means that the Forum has a key role in the Flood Risk and Drainage Management Partnership to ensure that planning for major flooding events is fully aligned with the 'day-to-day' work of relevant operating authorities.

Q.9: Is the description of the partnership and governance arrangements clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out?

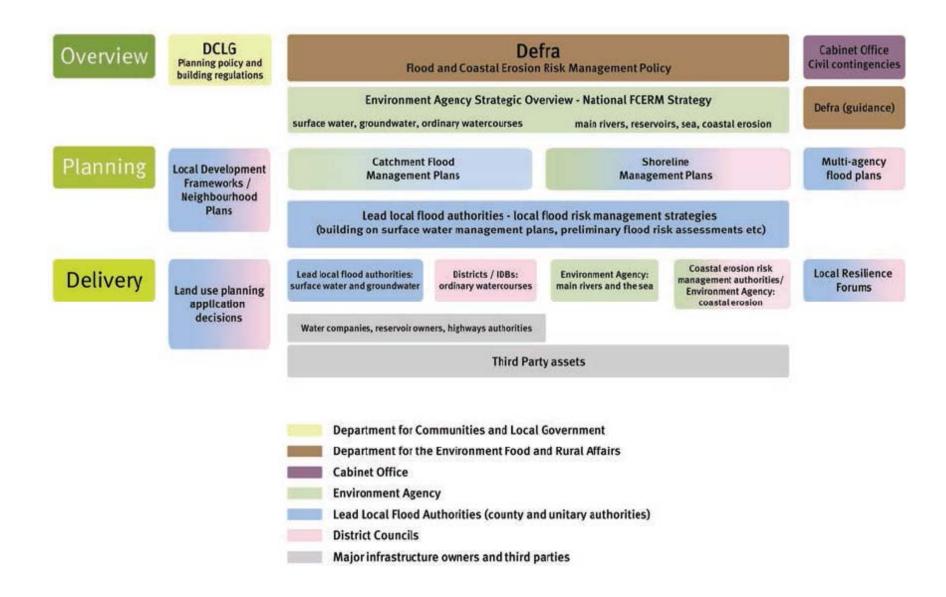
3. Setting the direction

Partner Strategic Drivers, Documents & Plans

There are a large number of existing plans and strategies defining how various aspects of flood risk will be managed. In part this is because in the past specific organisations were tasked with dealing with closely-defined areas of work that related to their own function, such as coastal management, river management, land drainage or water supply, rather than to an overarching vision of water management.

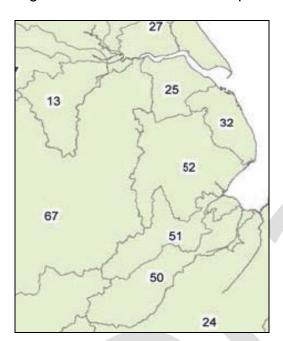
The National Flood and Coastal Erosion Management Strategy uses the diagram below to attempt to explain how these documents relate to each other, and which organisation has the responsibility for delivering and managing them.

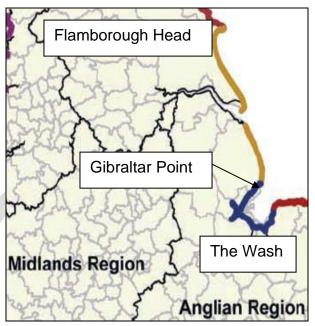




The National Strategy provides detail on the purpose and scope of these documents (pp 47-50). Among the more important are Shoreline Management Plans (SMPs) and <u>Catchment Flood Management Plans</u>, which set policy for coastal and river flood risk management respectively. There are two Shoreline Management Plans covering the Lincolnshire coast, one running from <u>Flamborough Head to Gibraltar Point</u>, and a second covering the <u>Wash</u>.

Boundaries of river catchments and the extent of the individual Shoreline Management Plans, together with the boundaries of the Environment Agency regions are illustrated in the maps below.





The catchments covering Lincolnshire are:

25: Grimsby and Ancholme 51: River Welland 32: Louth Coastal 52: River Witham

50: River Nene 67: Trent

River catchments cut across the county's administrative boundaries, and an important aspect of development flood and drainage risk management strategy will be establishing a working balance between governance systems and works that operate on different geographical principles. Similar considerations apply to the long coastal stretches covered by Shoreline Management Plans.

The <u>Lincolnshire Coastal Study</u>, completed in 2010, builds on the policies agreed in the Shoreline Management Plans. It establishes a detailed evidence base of flood hazard, social, economic and environmental conditions in the coastal zone, as the basis for a broad strategic approach to planning for the coastal zone.

Anglian Water Services and Severn Trent Water, the two water and sewerage companies covering Lincolnshire, plan their investment strategies through five yearly Asset Management Plans (AMPs), which are fundamental to the management of the public sewerage, water treatment and supply systems. Delivery of Asset Management Plans is regulated by Ofwat. This Strategy will play an important role in influencing the development of future business plans and, in particular, the formulation of the next five-year cycle, AMP6 (2015-20).

More broadly, there is national and European legislation protecting the environment that the Strategy must respect, alongside a duty in the Floods and Water Management Act itself that requires flood risk management authorities to undertake their duties in a manner 'consistent with sustainable development'. Of particular importance is the Water Framework Directive, which imposes strict targets for the water quality of the UK's rivers and water bodies. This is part of the rationale behind the emphasis in the legislation on sustainable drainage systems.

An important aspect of this Strategy, therefore, is to simplify and codify the number of different flood risk assessments, plans and strategies, to the point that the Joint Local Flood Risk and Drainage Management Strategy for Lincolnshire becomes the single core strategy for flood risk and drainage management in the county.

Q.10: Is the description of the different existing strategies and plans clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out?

Assessment of Flood Risk

Flood risk is assessed in a variety of ways according to what causes it and how well it is understood. Flood risk from the sea and rivers has been the main focus of flood defence thinking in the UK for the past thirty or more years, and therefore is well understood with detailed techniques for assessment. Surface water flooding, caused mainly by rainfall, is less predictable and less well understood.

The main existing tools for assessing flood risk are <u>flood risk maps</u> provided by the Environment Agency, many of which are accessible to members of the public via the Agency's website. These flood maps, alongside additional information about historic flood events, provide the main evidence base that is used to determine where flooding could occur in certain circumstances, how likely it is to take place, and how severe the impact of such flooding could be.

Coastal and river risk mapping (Annex D1)

This shows the maximum possible extent of flooding from rivers and the sea, in the event of flood events significant enough to occur, on average, once in every 200 years. It shows a worst-case scenario, assuming no flood defences and simultaneous flooding at all possible points along the coast and rivers.

Coastal hazard mapping (Annex D2)

This assesses the danger posed by flooding on the assumption that it has already taken place. The map at **Annex D2** again looks at a flooding event from the sea of a size that statistically would only occur once every two hundred years, and models the behaviour of water if the sea defences were to be breached.

The modelling takes into account local topography, and rates hazard caused by depth and speed of water, as well as the quantity of debris carried in it. It is important to bear in mind that these maps do not show the likelihood of breaching, only the consequences once breaching has taken place.

Surface Water Flood Risk

Lincolnshire County Council, working through the Flood Risk and Drainage Partnership, completed a <u>Preliminary Flood Risk Assessment</u> in June 2011, fulfilling one of the first new duties imposed on it by the new legislation (see **Annex E**). This is first time an assessment has been made across the county of the potential risk from surface water.

In essence, the assessment uses historical information about flooding incidents known to have happened in the past, where good, detailed information is available, as well as Environment Agency surface water flood maps which indicate where there may be a risk of flooding in the event of extreme rainfall in the future.

The combination of these data sources has provided a strategic overview based on a grid-square of half a kilometre and exploring a range of possible levels of risk, from twenty properties previously flooded or potentially at risk from flooding in a half-kilometre square up to fifty or more (**Annexes D3a-d**).

Risk mapping as a science is less advanced for surface water flooding than it is for coastal and river flooding. Extreme rainfall is also considerably more difficult to predict in terms of when and where it might happen. For this reason, this Strategy does not identify individual properties or groups of properties that may be at risk of surface water flooding. Rather, it aims to explore such areas in more detail to determine the nature and extent of any flood risk locally, and to identify methods to reduce or mitigate any identified risks.

Groundwater flood risk

Groundwater flooding arises from water that is held in the ground naturally. Some areas are more prone to higher groundwater levels than others, particularly when prolonged or extreme rainfall has saturated the ground and raised the water table in a locality. Groundwater mapping (**Annex D4**) is currently not well-suited to local assessment of risk, but rather assists in an overview of strategic risk at county level.

Sewer Flooding

All water and sewerage companies maintain a register of properties at risk of flooding due to a hydraulic overload in the sewerage network, known as the DG5 register. This is part of the set of Ofwat DG (Director General) indicators (DG2 – DG9) used to monitor company performance.

The DG5 register is a register of properties and areas that have suffered or are likely to suffer flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant period. There are 3 at risk reporting categories: '1 in 20 year', '1 in 10 year' and '2 in 10 year'. The reporting category reflects the frequency of flooding incidents in properties/areas and not the return period of the storm that causes the flooding. A sewer is overloaded when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded. It is also worth noting that properties will be removed from the register once a solution is in place.

As part of Water and Sewerage Companies' obligation to Ofwat, they are required to undertake capacity improvements to alleviate sewer flooding problems on the DG5 register during the current Asset Management Period (2010-15) with priority being given to more frequent internal flooding problems. The DG5 programme will be prioritised on the basis of cost benefit, which must be greater than the whole life cost of the scheme.

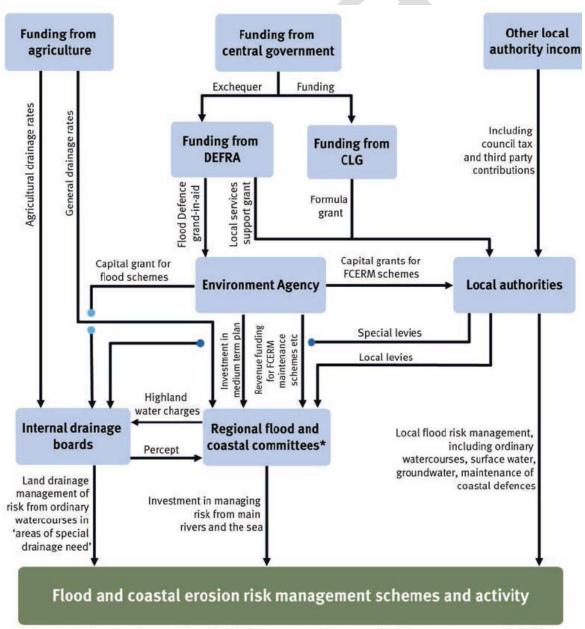
Q.11: Is the description of flood risk assessment for different sources of flooding clear and relevant? Is the role of the different authorities responsible for flood risk assessment covered in enough detail? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out?

4. Methods of delivery

Costs, benefits & funding arrangements

Funding for flood risk management comes from a range of sources, including national funding from the Department for the Environment Food and Rural Affairs (Defra) via the Environment Agency, from the Department for Communities and Local Government (CLG), and locally from the County Council, Internal Drainage Boards and Districts. Public funding available for flood risk and drainage management in Lincolnshire from all these sources amounts to about £21m, although this does not take account of resources deployed by Water and Sewerage Companies.

National funding system (from the National FCERM Strategy)



^{*} Note the Environment Agency delivers flood risk management schemes and maintenance as approved by RFCCs

National funding that comes into the area via the Environment Agency for maintenance and new works is prioritised and agreed by the Regional Flood and Coastal Committee regionally. This is also true of funds called the local levy paid into the Committee annually by each Lead Local Flood Authority.

National funds for works, known as 'Grant in Aid', is allocated according to a national formula that uses a range of different criteria to establish the relative priority of schemes, and thereby to establish how much national funding each scheme can attract. This formula now provides for contributions of local funds to enable the allocation of some national funding to schemes that might not previously have attracted any, but it does also mean that fewer schemes will now be fully funded from this source.

Funds raised by Internal Drainage Boards and Districts are generally spent within their own areas, while government funding direct to the County Council are allocated across Lincolnshire to discharge its duties as Lead Local Flood Authority.

Partnership resources

The Lincolnshire partnership will drive changes in the way that existing resources are allocated, seeking to achieve more by improved prioritisation through the common works programme of maintenance and new works, and by ensuring that works are undertaken by the organisation best placed to deliver the best results. In particular, the partnership will aim to achieve a 10% efficiency saving from the baseline position of 2013-14, with any savings reinvested in additional works.

In order to achieve this, the partnership will set aside a proportion of it available resource, including some locally raised funds, which will be ringfenced to priority schemes identified in the common works programme, on the principle that locally-raised funds should be used locally.

This would include the following funding streams

- General Drainage Charge, paid by landowners to the Environment Agency (£760,000 in 2012/13)
- Local Levy, paid by the County Council to the Environment Agency (£580,000 in 2012/13)
- Precept, paid by Internal Drainage Boards to the Environment Agency (£2,300,000 in 20-12/13)

In the long term, the partnership will evolve its approach, with the aim of achieving more flexible deployment of people and equipment, as well as simplifying the current, complex funding system and retaining as much funding within Lincolnshire as possible.

The exception to this is coastal funding, where no local contribution should be made unless it can be fully recovered and used to generate additional benefits for the local area. However, the partnership will encourage exploration of

contributions from wealth generated through commercial exploitation of benefits provided by the sea defences.

Risk-based approach: local flexibility within a national framework

It is important that the Strategy maintains consistency with the National Flood and Coastal Erosion Risk Management Strategy. To this end, all investment should be made within a nationally consistent framework, to take account of policies and findings within existing strategy and policy documents and with funding options adequately appraised in line with HM Treasury guidance. However, localism will be emphasised to ensure that national approaches are modified and developed to meet the needs of local communities in Lincolnshire.

As has been stated before, the common works programme that will define the work of the Lincolnshire partnership will be prioritised on the basis of levels of risk. By definition, allocation of funding must also be on this basis, and to meet the requirements of a common works programme, prioritisation will apply to flood risk from all sources, with the exception of coastal defence. This means that there must be sufficient flexibility in the criteria that are applied locally to allow for prioritisation outside the national funding system, which will place a premium on larger schemes affecting large numbers of people, properties and assets.

Addressing coastal flooding, flexibility will also be needed to recognise that not all types of flood damage are the same. Saline flooding can cause greater harm, for example to agricultural land, than surface water, river or groundwater flooding. As the national funding model does not currently recognise these distinctions, the Strategy will apply the model to coastal defences but with variations to reflect potential loss of life and a realistic assessment of actual damage.

The Strategy will also maximise leverage of commercial contributions. This will be applicable across all aspects of flood risk management, with the Lincolnshire Infrastructure Delivery Plan acting as the mechanism for the Lead Local Flood Authority to redistribute developer contributions through Community Infrastructure Levy. This is a significant issue for Lincolnshire, given the national importance of the high-quality agricultural land protected by the coastal defences, and the regional importance of the tourism assets along the east coast (see **Annex F**).

Local infrastructure plans should include flood risk management assets as infrastructure, and this will be facilitated by the establishment of a long term investment plan. The annually reviewed common works programme will effectively provide the immediate implementation plan for this long term investment plan.

Prioritisation criteria

The Tactical Plan that will accompany this Strategic Plan will define in detail technical aspects of the work of the Partnership. This will include

- Criteria for undertaking formal Lead Local Flood Authority investigation of flooding incidents
- Criteria for prioritising the significance of specific flood events
- Criteria for prioritising allocation of funding to maintenance and new works
- Criteria for designating features as flood risk assets

The most important priority will always be risk to human life, followed by risk to health and property. However it may be more appropriate for Lincolnshire to rank high grade agricultural land higher than is currently the case in the national system. Equally, infrastructure such as hospitals, GPs' surgeries, local shops, transport links and power supplies will feature alongside flood risk and drainage assets as important factors, as will insurance availability and the practicability of implementing a solution to a specific issue.

Data management and providing information

Good information is the cornerstone to effective joint working, and this Strategy will ensure that partner organisations share the operational information they need to provide the best solutions to flood risk issues. Just as important, the Strategy also makes sure that local people have access to better information about what is already in place to manage flood risk, as well as work that is planned to improve protection.

A flood risk asset register is being established, which will allow members of the public to identify any flood risk assets that already exist in their locality. A flood risk asset record will allow operational authorities to identify these features regardless of who is responsible for managing and operating them, and will enable a more co-ordinated approach to maintenance, improvement and construction of new structures.

However there is also a much broader need for a long-term, consistent dialogue between local people and businesses and the organisations responsible for flood risk and drainage management. Lincolnshire has attracted national pathfinder status for its work on raising awareness of coastal flood risk and working with local communities in the longer term to increase their resilience to flood risk and other impacts of climate change.

This approach will be extended to cover the whole of county, and to embrace dialogue on flood risk from all sources and between all involved parties. Its objectives will be to

 Provide practical, simple and clear channels of communication between local people, business and flood risk management authorities, day-to-day and before, during and after a flooding incident, whether localised or more widespread

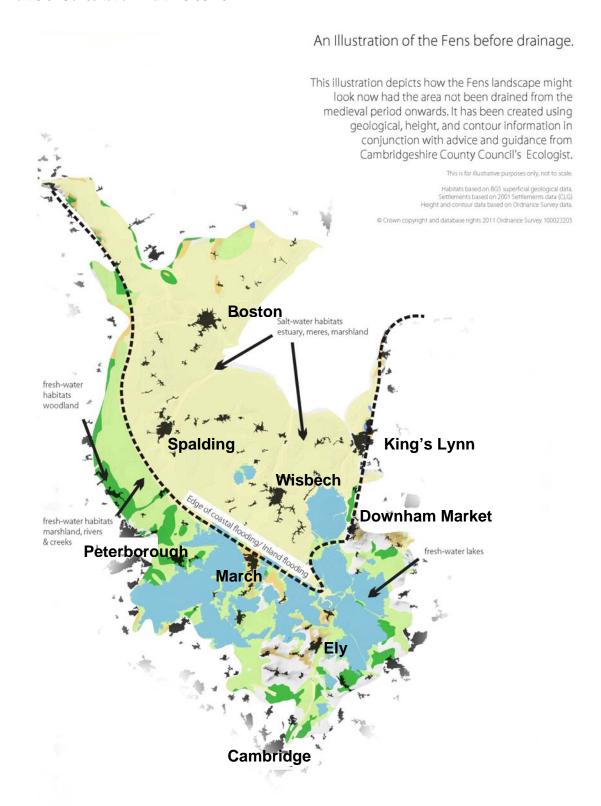
- Provide consistent information on local flood risk and appropriate resilience measures
- Provide a consistent background for early involvement of local people in proposing, developing and implementing specific schemes to address flood risk issues
- Ensure that operating authorities are able to share and access up to date technical asset and incident information, and that local people and businesses can access the information they need, when they need it
- Ensure that local people and businesses have a single, responsive point of contact
- Develop a joint approach between risk management authorities, local businesses and local communities to improving our understanding of flood risk in Lincolnshire and how we can work together to reduce its impact

Q.12: Is the description of existing funding mechanisms and their possible development in the future clear and relevant? Is the explanation of the 'risk-based approach' and prioritisation based on risk sufficient? Is the proposed joint approach to communications and involvement clear and detailed enough? Is there anything missing or anything that should be taken out?

It is important that in managing flood risk and land drainage we co-operate with neighbouring areas to manage water systems that cross administrative boundaries. For Lincolnshire, this means working closely with the authorities on the South Humber bank, North Lincolnshire and North East Lincolnshire Councils, where rivers such as the Ancholme cross the administrative boundaries, and where we share interests in effective coastal management.

In the south, we need to work closely with Cambridgeshire, Peterborough, Norfolk and Suffolk, to develop a consistent management approach to the Fens. The Fens cover a very large area, with significant inland areas defended from saltwater flooding by Lincolnshire's and Norfolk's extensive system of coastal defences. Behind these defences a vast, interconnected pumped drainage system maintains some of the best agricultural land in Europe (see **Annex F**), and it is important that its management is consistent across the whole Fenland area.

The map reproduced below is a reconstruction of the extent of coastal and inland inundation that might exist in the Fens without successive land drainage and defence since the thirteenth century, with the positions of the main modern settlements marked.



To reflect the importance of the Fens as a highly productive and precious resource the following aspirations have been identified by the five Lead Local Flood Authorities for the wider area in respect of flood risk and drainage management.

- Continue to ensure that appropriate flood risk and drainage management measures are taken to protect the nationally important food production areas in the Fens
- Ensure that where appropriate, current levels of protection are maintained in the Fens taking into account climate change
- Manage flood risk and drainage in accordance with principles of sustainable development
- Ensure that development is undertaken appropriately, so that adverse consequences of flood risk are not increased
- Contribute towards the protection and enhancement of the environmental heritage and the unique landscape character of the Fens including biodiversity;
- Support promotion and use of the waterways and other areas in the Fens for tourism and recreation
- Develop effective dialogue with local communities to facilitate their involvement in flood risk management in the Fens
- Work with local planning authorities to help them grow the economy in the Fens, through the early consideration of flood and water management needs

Strategy Contribution to Wider Environmental Objectives

The Partnership is currently reviewing existing environmental assessments undertaken in connection with previous flood risk and drainage management strategies and plans. This will identify any gaps where potential environmental improvements could be made, or where potential harmful impacts from flood risk and drainage schemes have yet to be fully considered.

All risk management authorities are required to undertake their duties in a manner that contributes towards sustainable development, and this includes proper consideration not only of possible harm that might be caused to the environment, but the potential for proactive improvements.

The strategy will contribute to the achievement of wider environmental objectives by

- Ensuring that, as far as is reasonably practical, actions taken will maximise
 opportunities to ensure that Lincolnshire's countryside, coastline and
 towns become richer in biodiversity and waterways achieve good
 ecological status.
- Ensuring that in all decision making, adaption to mitigate the likely effects
 of climate change will be taken into account, community engagement will
 be encouraged and the ethos of 'making space for water' will be followed.
- Ensuring that in addition to Water Framework Directive and biodiversity improvements, other benefits will be sought as appropriate, such as changes to more sustainable water management practices like sustainable

drainage systems, diverting floodwaters into areas where it can achieve positive environmental benefits, and improvements to public access.

Strategy Review Process (How & When)

Delivery of the Strategy will be managed by the Lincolnshire Flood Risk and Drainage Partnership, with regular progress reports against targets to the Management Group, and from there to Strategy Group and the Scrutiny Committee. Progress will be reviewed on a six-monthly basis by the Joint Flood Risk Management Scrutiny Committee, and results will be published for public inspection.

The works programme will be reviewed annually, and the Strategy as a whole will be subject to a five-yearly review process, including full public involvement, to ensure it is kept up-to-date, takes account of objectives achieved, and continues to maintain a focused forward programme at strategic, tactical and operational levels.

The Lead Local Flood Authority will be responsible for ensuring that monitoring and reviews are undertaken according to plan, but the partnership as a whole will contribute to the review and refresh of the Strategy.

Q.13: Is the proposed approach to cross-boundary working clear and relevant? Is there enough detail on flood risk management and wider environment objectives? Is the proposed review process sufficient to ensure that the document remains up to date? Is there anything missing or anything that should be taken out?

| Q.14: | Were you aware of the role of Lincolnshire County Council as a Lead Local Flood Authority before you took part in this survey? Please tick one box only. |
|-------|--|
| | Yes |
| | No |
| Q.15: | Do you have any additional comments to make in relation to the development of the strategy? |

| Q.16: What is your age? | | |
|-------------------------|--|--|
| | Under 18 | |
| | 18-25 | |
| | 26-44 | |
| | 45-54 | |
| | 55-64 | |
| | 65 or above | |
| | Prefer not to say | |
| | | |
| Q.17: | Do you consider yourself to have a disability? If so, please select any that apply | |
| | None | |
| | Visual | |
| | Communication | |
| | Hearing | |
| | Mobility | |
| | Learning | |
| | Mental Health | |
| | Physical | |
| | Other (please state) | |
| | Prefer not to say | |
| | | |
| Q.18: | : What is your gender? | |
| | Male | |
| | Female | |
| | Prefer not to say | |

Table of all Consultation Questions

| Q. 1: | Please tick one box only. |
|--------|--|
| | As an individual |
| | On behalf of my local community (please state which one) |
| | On behalf of an organisation (please state which one) |
| Q. 2: | Please provide your postcode |
| | |
| Q. 3a | : What is your current understanding of flood risk in your locality? |
| | I am not at risk of flooding |
| | I have been affected by flooding before(please give details below) |
| | My local area has been affected by flooding before (please give details below) |
| | I am aware that I am at risk, but I have not been affected before |
| Q. 3b | : When/where were you affected (if applicable)? |
| Date(| s): |
| Villag | e or town: |
| Q. 3c | : Which part of your property/local amenity did the flooding affect? Please tick all that apply. |
| | The road |
| | Gardens and/or fields |
| | Outbuildings |
| | The property internally |
| | Local amenities like schools, hospitals or doctors' surgeries |
| | Infrastructure, like electricity substations |
| П | My business property |

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| Q. 4: | Where would you go to find out more information about flooding? Please tick all that apply. |
|-------|---|
| | Lincolnshire County Council |
| | District Councils |
| | Environment Agency |
| | Internal Drainage Boards |
| | Town and parish councils |
| | National Flood Forum |
| | Fire and Rescue Service |
| | Police |
| | NHS |
| | Other (please state) |
| Q.5: | What steps, if any, have you taken to prepare for flooding? Please tick all that apply. |
| | Found out more information on flood risk to my property |
| | Prepared a flood plan |
| | Signed up for flood warnings |
| | Attended a local action group |
| | Purchased flood resilience equipment |
| | Become a local flood warden |
| | Nothing, as I see it as the responsibility of the authorities |
| | Other (please state) |

| Q. 6: | How would you prefer to receive information about being prepared for flooding? |
|-------|---|
| | Internet |
| | Local radio/television |
| | Local paper |
| | Leaflet through door |
| | Face-to-face events/drop-ins |
| | Other (please state) |
| Q.7: | Are the vision, outcomes and guiding principles right? Is there anything missing? Is there anything that should be taken out? |
| Q.8: | Is the description of organisations' current and new responsibilities clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out? |
| Q.9: | Is the description of the partnership and governance arrangements clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out? |
| Q.10: | Is the description of the different existing strategies and plans clear and relevant? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out? |
| Q.11: | Is the description of flood risk assessment for different sources of flooding clear and relevant? Is the role of the different authorities responsible for flood risk assessment covered in enough detail? Is there anything missing or that is not explained in enough detail? Is there anything that should be taken out? |
| Q.12: | Is the description of existing funding mechanisms and their possible development in the future clear and relevant? Is the explanation of the 'risk-based approach' and prioritisation based on risk sufficient? Is the proposed joint approach to communications and involvement clear and detailed enough? Is there anything missing or anything that should be taken out? |

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| Q.13: | Is the proposed approach to cross-boundary working clear and relevant? Is there enough detail on flood risk management and wider environment objectives? Is the proposed review process sufficient to ensure that the document remains up to date? Is there anything missing or anything that should be taken out? |
|-------|--|
| Q.14: | Were you aware of the role of Lincolnshire County Council as a Lead Local Flood Authority before you took part in this survey? Please tick one box only. |
| | Yes |
| | No |
| Q.15: | Do you have any additional comments to make in relation to the development of the strategy? |
| | |
| Q.17: | Do you consider yourself to have a disability? If so, please select any that apply |
| | None |
| | Visual |
| | Communication |
| | Hearing |
| | Mobility |
| | Learning |
| | Mental Health |
| | Physical |
| | Other (please state) |
| | |

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Q.18: What is your gender?

☐ Female

Male

☐ Prefer not to say



7. Contact Details

This consultation draft Strategy is available online at http://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/

Hard copies are available on request.

All postal enquiries and consultation responses should be sent to:

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Lincolnshire Flood Risk and Drainage Management Partnership Framework

Lincolnshire Joint Flood Risk and Drainage Management Strategy

Draft v.6.0

Consultation Draft

23rd May 2012

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 requirements for Local Flood Risk Management Strategies (see section 10 on Wales for the differences for councils in Wales)

It states that an LLFA 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 *Joint Lincolnshire Flood Risk and Drainage Management Strategy: Draft v.6.0:Consultation* 3 *Draft, 23-05-2012: Annexes A-F*

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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 as an LLFA – 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 *Joint Lincolnshire Flood Risk and Drainage Management Strategy: Draft v.6.0:Consultation 4 Draft, 23-05-2012: Annexes A-F*

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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

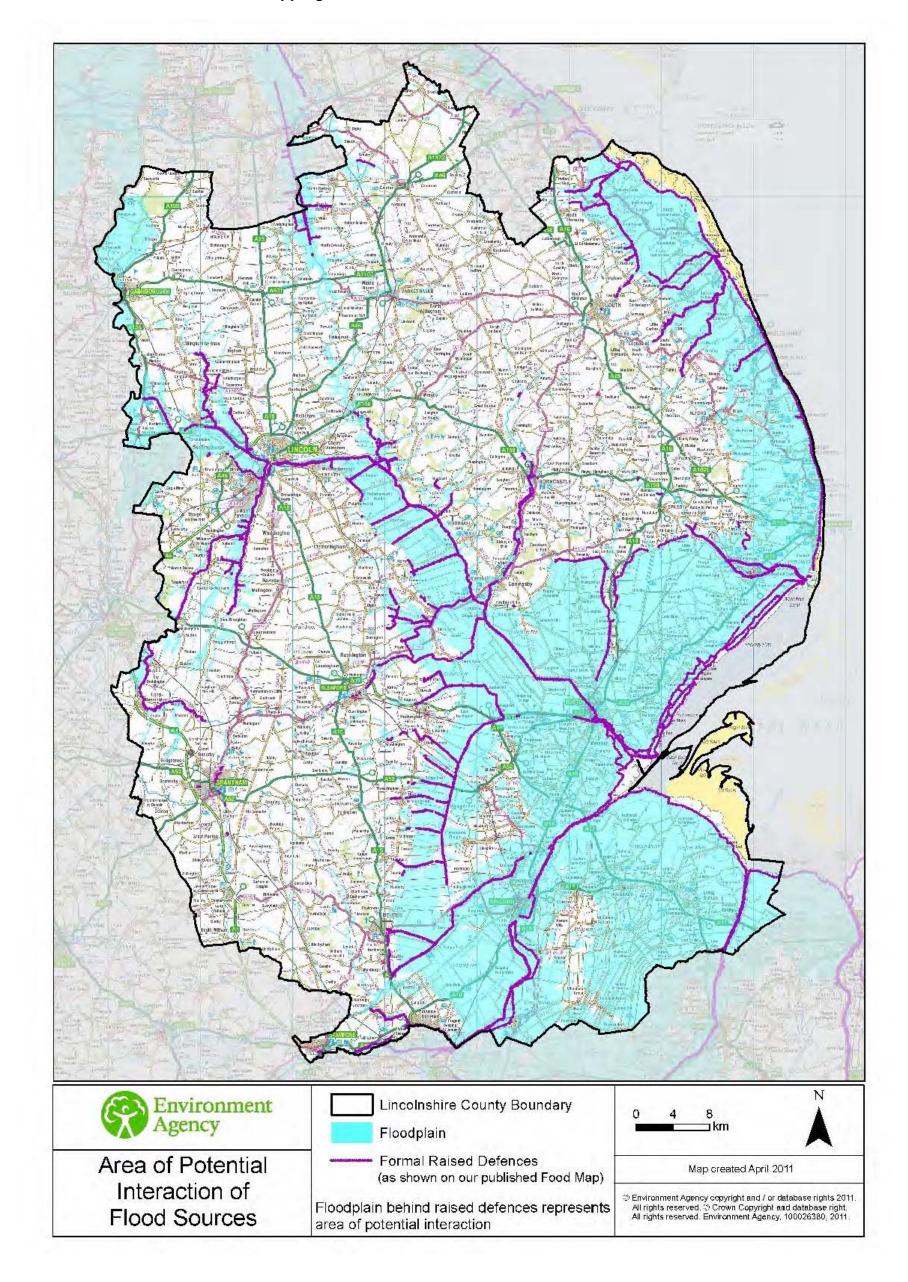
In addition there is a **Regional Flood and Coastal Committee**, which approves the Environment Agency's proposed plans at regional level and allocates much of the funding available to the Agency from Government. This also includes funding available from Government to Lead Local Flood Authorities and 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.

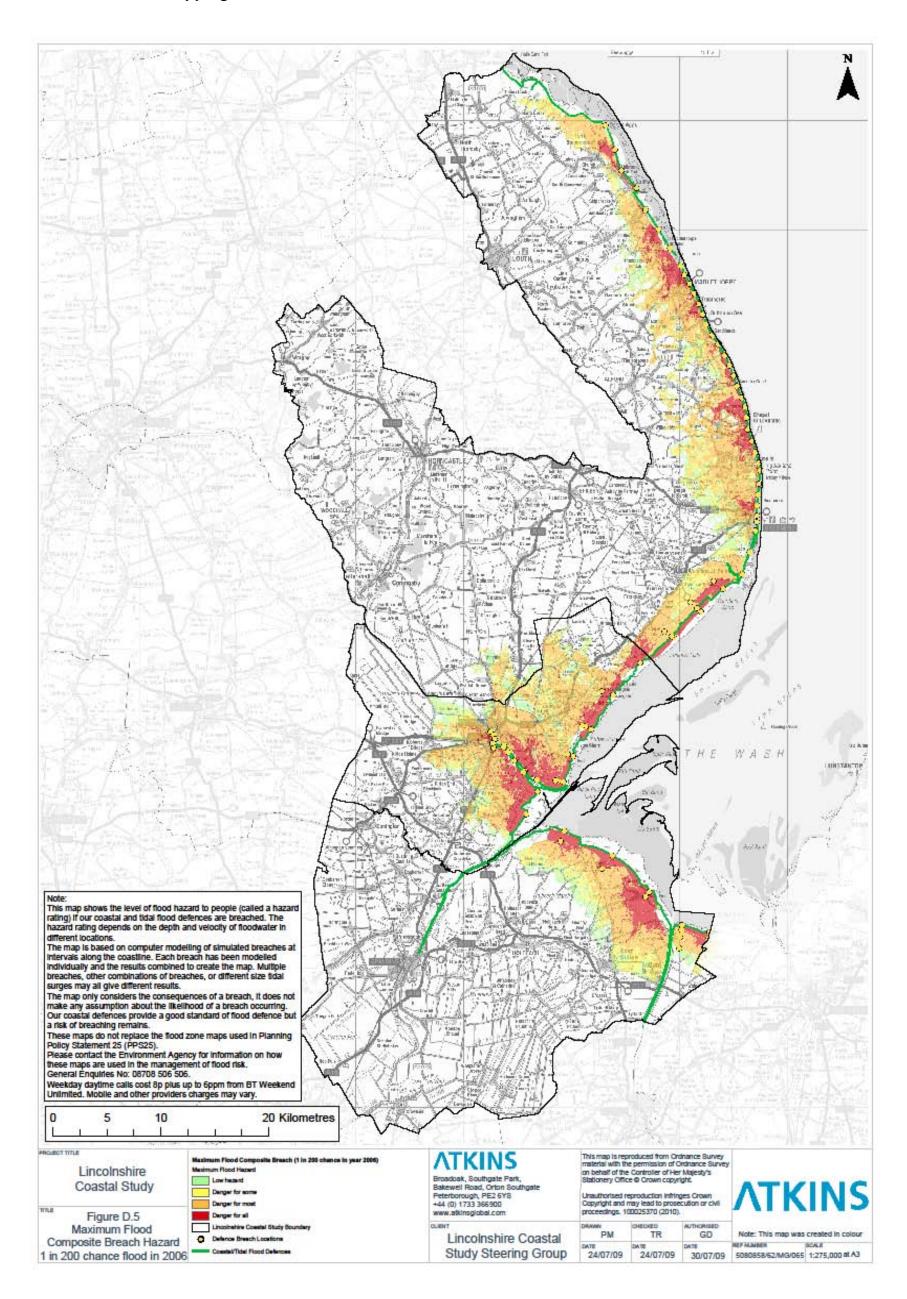
Regional Flood and Coastal Committees are composed of members appointed by the Environment Agency, as well as a bare majority of elected councillors appointed proportionately by the Lead Local Flood Authorities in the Committee's area. Lincolnshire County Council has three seats on the Anglian (Northern)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

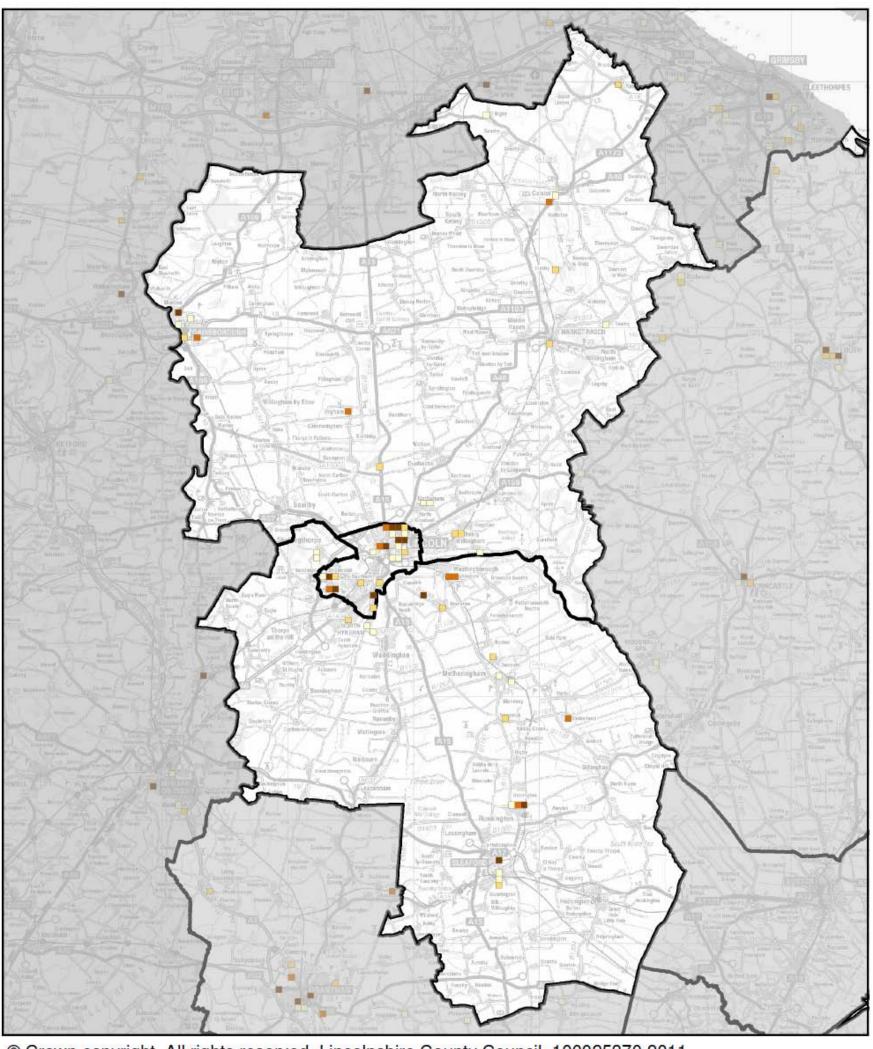


D2: Coastal hazard mapping



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



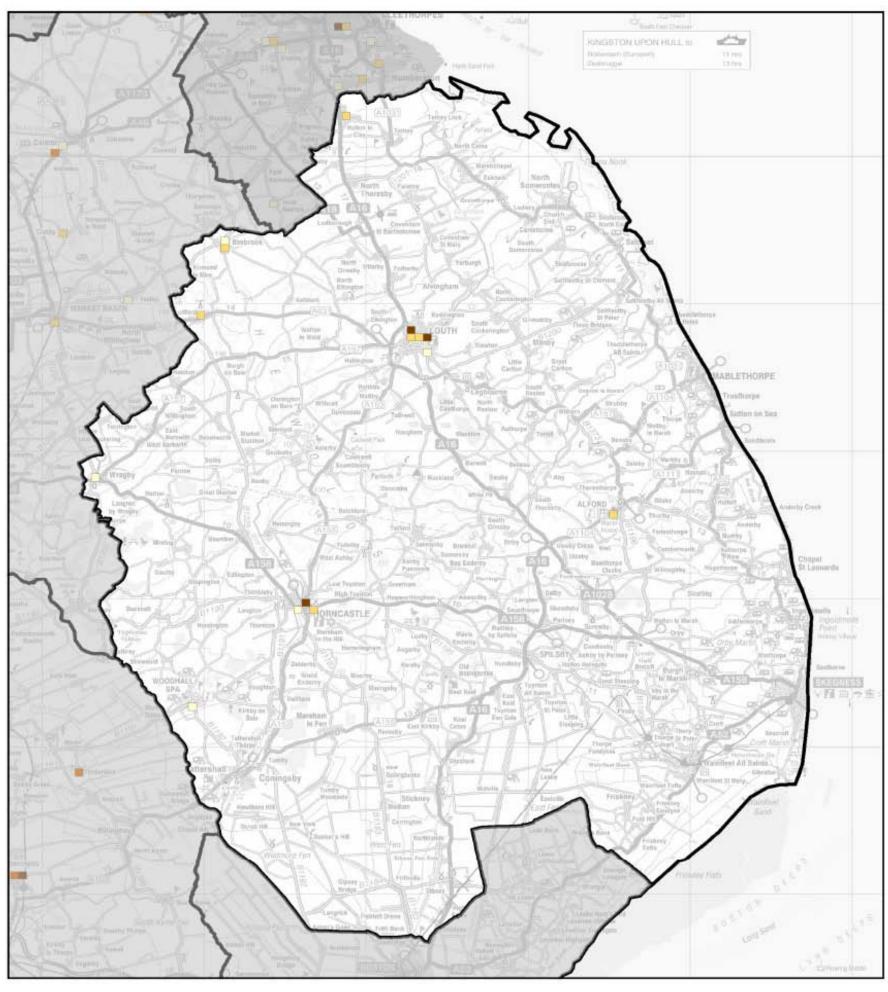
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding

20 to 30 30 to 40 40 to 50 Over 50

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



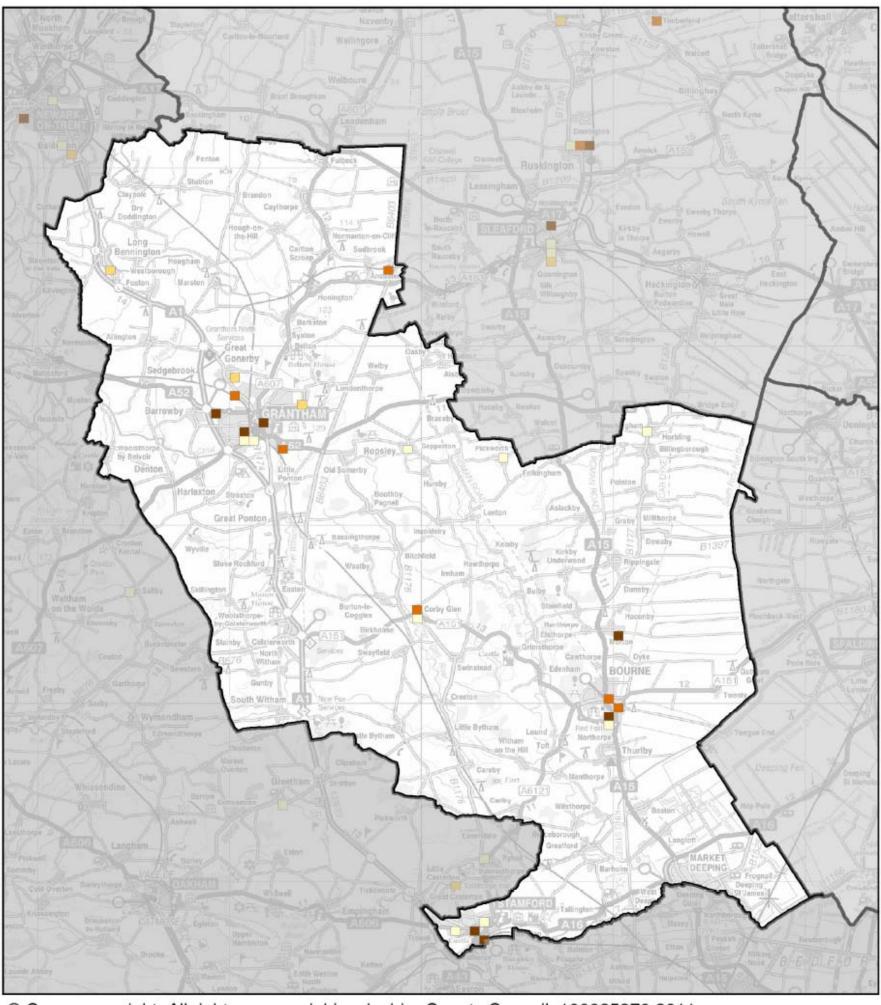
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



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



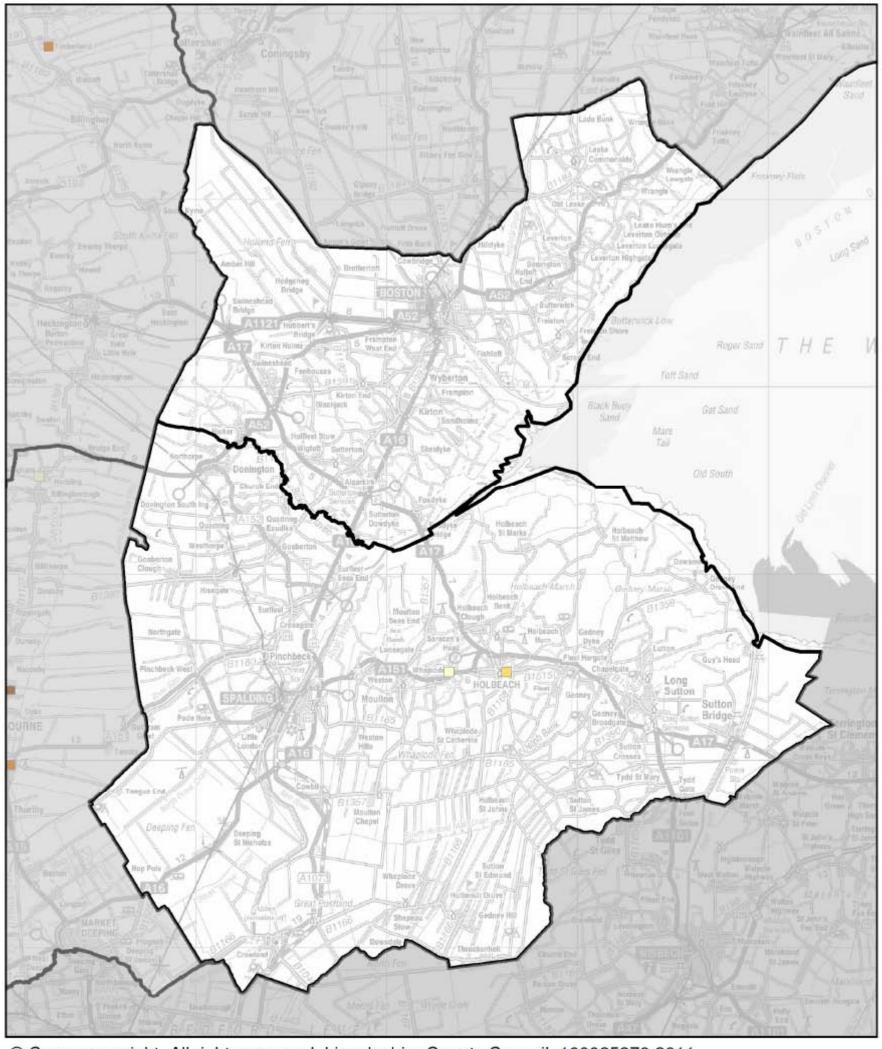
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Legend – Estimated number of properties within a 0.5 km sq at potential risk of local flooding



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

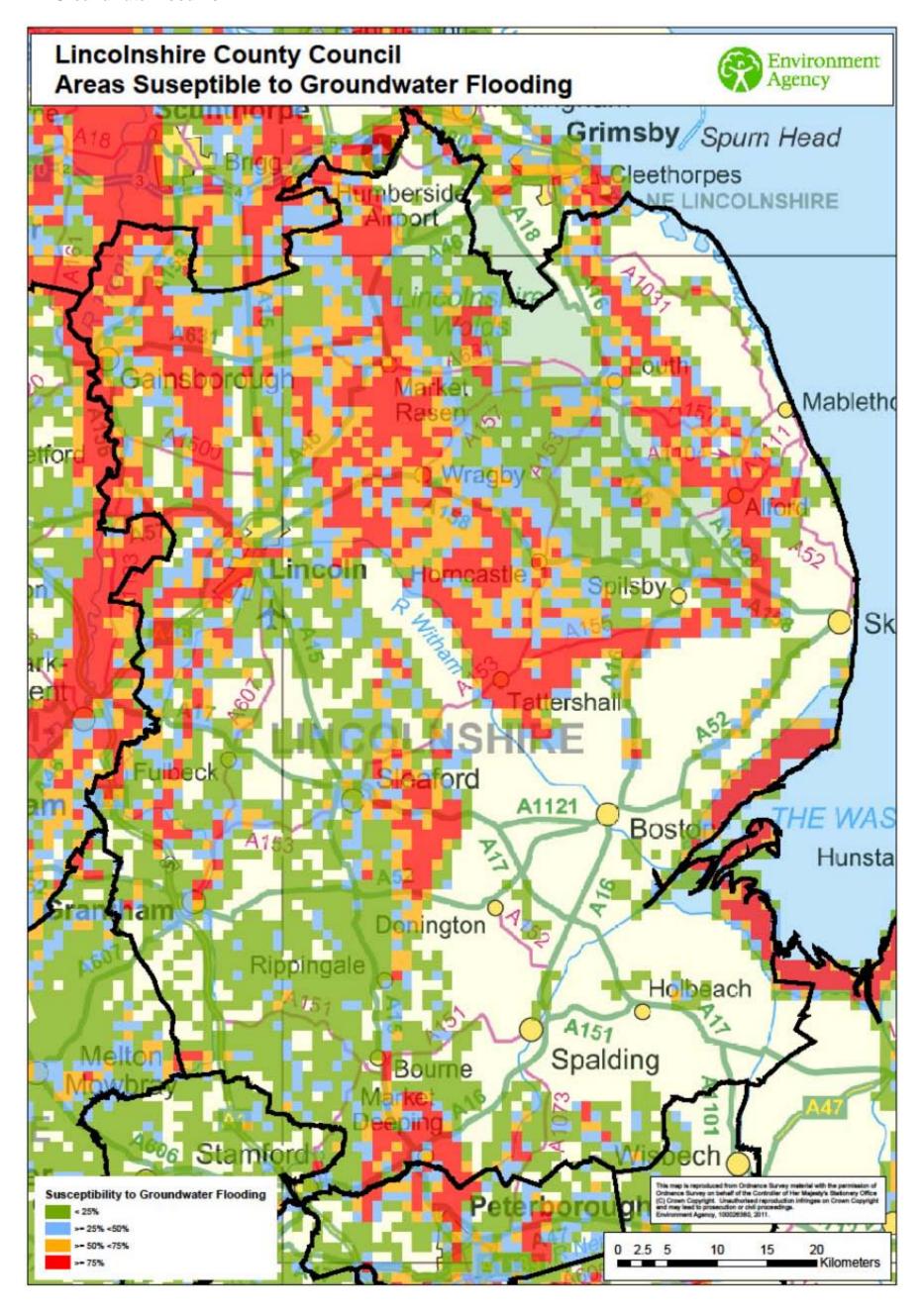


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D4: Groundwater flood risk



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

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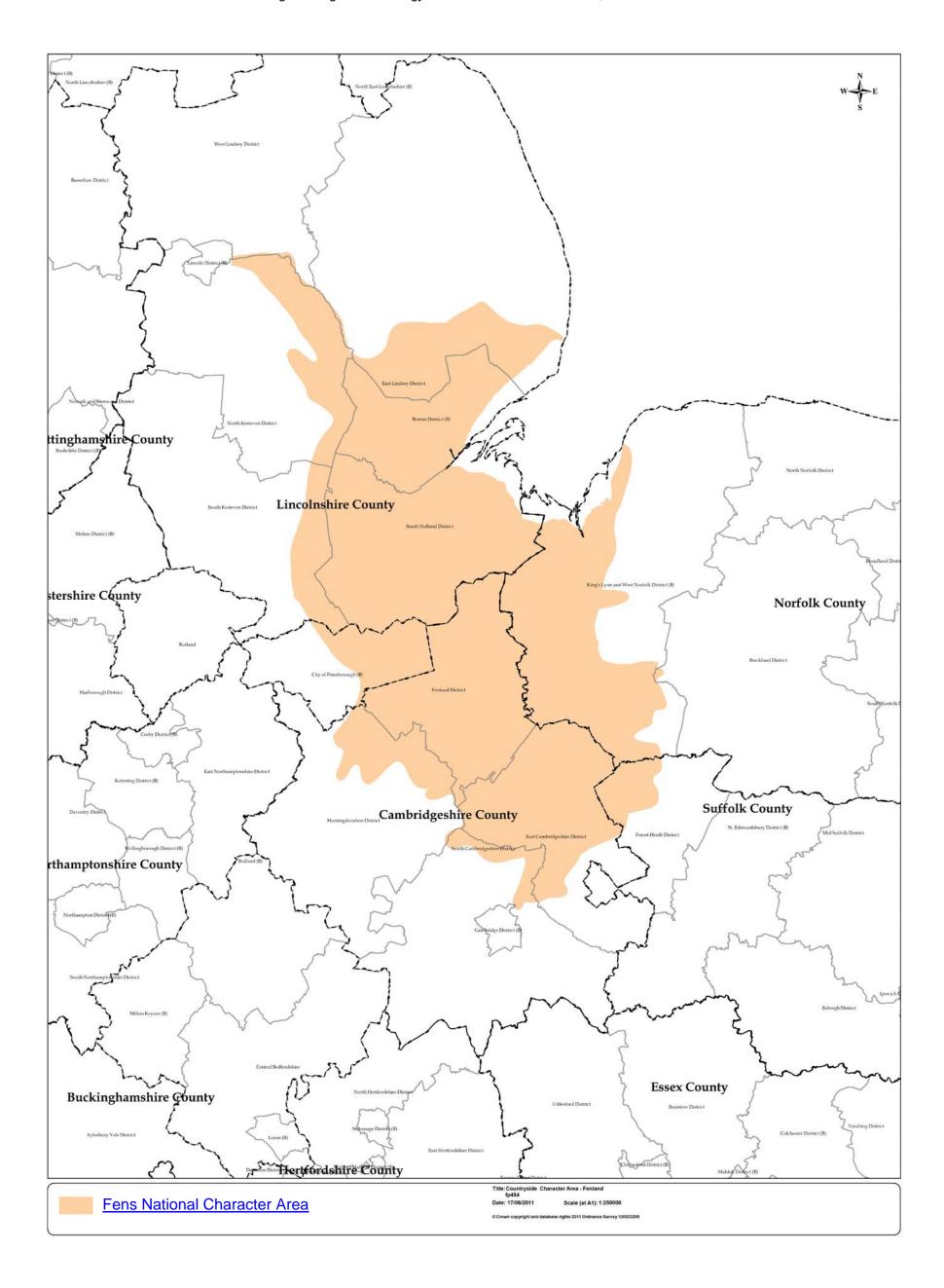
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Lincolnshire, Peterborough, Cambridgeshire, Norfolk and Suffolk have therefore agreed to work together closely to achieve this aim. Forest Heath District Council has been involved on behalf of Suffolk County Council since Suffolk's fenland is principally 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. Coupled with over 60 miles of coastal sea walls and 96 miles of river embankments, the Fens 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

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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 Fenlands, 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.

