North East Lincolnshire Local Flood Risk Management Strategy

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Contract

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Acknowledgements

North East Lincolnshire Council

North East Lindsey Internal Drainage Board

Environment Agency

Anglian Water

Lincolnshire Wildlife Trust

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Abbreviations

ABP	Associated British Ports
CPO	Compulsory Purchase Order
Defra	Department for Environment, Food and Rural Affairs
FCERM	Flood and Coastal Erosion Risk Management
FDGiA	Flood Defence Grant-in-Aid
FRISM	Flood Risk Metrics (JBA's in-house flood metric tool)
FRMP	Flood Risk Management Plan
FWMA	Flood and Water Management Act
IDB	Internal Drainage Board
LFRMS	Local Flood Risk Management Strategy
LPA	Local Planning Authority
NELC	North East Lincolnshire Council
NFM	Natural Flood Management
NPPF	National Planning Policy Framework
OBC	Outline Business Case
PFRA	Preliminary Flood Risk Assessment
RBD	River Basin District
RFCC	Regional Flood and Coastal Committees
RMA	Risk Management Authority
SAB	SuDS Approving Body
SFRA	Strategic Flood Risk Assessment
SuDS	Sustainable Drainage Systems

Definitions

Main rivers: those rivers marked on the official main river map which is held by Defra and maintained by the Environment Agency.

Ordinary watercourses: every river, stream, ditch, drain, cut, dyke sluice and passage through which water flows that is not part of a main river.

Executive Summary

Purpose of the Local Flood Risk Management Strategy

This Local Flood Risk Management Strategy (LFRMS) (2023) sets out how North East Lincolnshire Council (NELC) address the management of local flood risk and undertake their flood risk management responsibilities as required under the Flood and Water Management Act 2010. This Strategy is an update of the existing LFRMS (2015). As part of this update, a full review of the existing Strategy has been undertaken so that is aligns with the latest guidance and legislation. There have also been improvements in available datasets since the previous Strategy was published, which have also been incorporated. The objectives in relation to flood risk management have been updated to reflect the objectives that have been set in the Environment Agency's (EA's) National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England.

To support the objectives, strategic measures have been developed under each of the three themes from the EA's updated National FCERM Strategy. A new Action Plan has also been produced that sets the actions for the Authority to achieve its objectives over the short term.

The purpose of this Strategy is to set out NELC's approach to managing flood risk from local sources (i.e. surface water, ordinary watercourses and groundwater) in both the short and longer term, with proposals for sustainable actions that will help the Authority to manage the risk in a way that delivers the greatest benefit to our residents, businesses and the environment.

Under the Flood and Water Management Act 2010, all Risk Management Authorities are expected to exercise their flood and coastal erosion risk management functions consistently with the national strategy. As a result, the aims and objectives of this strategy are directly aligned to the objectives set out in the EA's National FCERM Strategy for England (adopted 25 September 2020). The national strategy provides a framework for guiding the operational activities and decision making of practitioners supporting the direction set by government policy in England and sets out the long-term delivery objectives the nation should take over the next 10 to 30 years. It also sets out shorter term, practical measures that Risk Management Authorities should take working with partners and communities.

The objectives of the Local Flood Risk Management Strategy have been divided into three pillars, which are aligned with the national strategy:

- Climate Resilient Places: working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change.
- Today's growth and infrastructure resilient in tomorrow's climate: making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as infrastructure resilient to flooding and coastal change.

- A nation ready to respond and adapt to flooding and coastal change: ensuring local people understand their risk to flooding and coastal change and know their responsibilities and how to take action.

Methodology to date

This LFRMS has included a revision of methods undertaken in the previous strategy (2015), in order to get a succinct and focused set of objectives and measures, the three pillars from the EA's National FCERM Strategy for England have been used. The objectives and measures set in the previous strategy were reviewed and updated as part of a workshop with key stakeholders on the project, this is to ensure those working with us to achieve the objectives of this strategy feel they are specific, measurable, achievable, realistic and time bound.

A community questionnaire was undertaken across the North East Lincolnshire area, to gather information on flood history, issues and resilience to events. Local flooding was attributed to a variety of factors including extreme high tides, abnormal and persistent rainfall, blocked drains, and topography. Of the 109 responses to the questionnaire 43 respondents said they had experienced flooding in the vicinity of their property, due to the above reasons. Locally, floodwater is reported to be caused by backed up drains leading to overland flow, whilst more generally in North East Lincolnshire the same issues are recurrent, however fluvial flooding is also prominent. Respondents also reported groundwater flooding in some cases as well as foul sewers overflowing. 84 respondents said they were currently unaware of any flood plans in their area, however of the 19 people who said they were aware of flood plans these included phone calls to residents to make them aware of upcoming severe weather events, flood sirens, posters, and locally organised escape plans within neighbourhood watch groups.

A hotspot analysis has also been undertaken to assess the tidal, fluvial and surface water flooding risks to key infrastructure receptors and identify areas of higher flood risk which were then taken forward as the areas of focus for the development of objectives and measures for this strategy. This analysis identified 18 surface water hotspots and 4 rivers and sea hotspots across the borough. Mitigation of flood risk in these areas will be captured through the objectives and measures.

North East Lincolnshire Council will work in partnership with the North East Lincolnshire Strategic Flood Risk Board to deliver these objectives and measures, alongside input from the EA, Anglian Water, Lincolnshire Wildlife Trust, North East Lindsey Internal Drainage Board (IDB) and Lindsey Marsh IDB.

1 Introduction

1.1 North East Lincolnshire Council Priorities

‘Stronger economy and stronger communities’
To achieve this vision we need to work in new ways with partners in the public and private sectors, the voluntary and community sector, and with individuals, families and communities. We must support and enable the achievement of improved community outcomes with creativity and innovation.

We want North East Lincolnshire to be seen as an attractive place to live, work, visit and invest. We know that we have significant and exciting opportunities for investment and growth in North East Lincolnshire.

The Council's stronger economy / stronger communities priorities are underpinned by a key strategic framework comprising the following:

- health and wellbeing strategy
- economic strategy
- prevention and early intervention strategy
- financial strategy
- safeguarding

Our outcomes framework is the means by which our priorities will be translated into action and delivered, developed and achieved in conjunction with our partners across sectors. This is intended to drive a culture of evidence-based decision-making that will enable elected members to take informed key decisions, knowing the risks and the opportunities for citizens, communities and businesses. Our commissioning plan will ensure and foster clear links between the outcomes framework and the resources available to achieve them.

The framework, sets out the five high level outcomes that we and our partners aspire to achieve to ensure prosperity and wellbeing for the residents of North East Lincolnshire.

The five outcomes are that all people in North East Lincolnshire will:

Enjoy and benefit from a strong economy

Feel safe and are safe

Enjoy good health and well being

Benefit from sustainable communities

Fulfil their potential through skills and learning

1.2 Context and Legislation

This Strategy is a review of the previous North East Lincolnshire Local Flood Risk Management Strategy (LFRMS), published in 2015. The LFRMS review should consider

local issues and policy. It must be consistent with the National Flood and Coastal Erosion Risk Management (FCERM) Strategy, take account of the current policy, and reflect the aspirations and priorities of other partners with responsibilities for FCERM along with wider local interests in linked environmental or social outcomes.

The review was triggered by the updated National FCERM Strategy, published in 2020, and the associated FCERM Strategy Roadmap to 2026, published in 2022.

1.3 Methodology

The Local Government Association sets out a five step circular process for developing a Local Flood Risk Management Strategy, which has been used as the basis for this Strategy review. The five stages are:

1. Understand flood risk
2. Set objectives
3. Choose measures
4. Implement
5. Monitor and review

All the stages are underpinned by the concept of 'Work with others' highlighting the collaborative nature required throughout all stages of developing the Strategy. Further information is available on the Local Government Association website, here[1].

The following methodology was used in developing this Strategy review:

1. **Literature review**: a review of the existing strategies, policies and legislation affecting flood risk management across North East Lincolnshire was undertaken. These documents were summarised, and any key outcomes, actions, objectives and measures were collated, which were then used to inform the development of objectives and measures for this Strategy review.
2. **Community questionnaire:** a questionnaire was developed to capture flood risk information from the community including areas, types and frequency of flooding as well as information on flood plans and community preparedness. The outputs of this questionnaire supported both the hotspot analysis and the development of objectives and measures.
3. **Hotspot analysis**: 500m grid squares across the North East Lincolnshire area were run through JBA's internal FRISM software to assess the fluvial, sea and surface water flooding risks to key infrastructure receptors. Following analysis of the data, this produced a category of high risk areas containing the most amount of receptors to sources of flooding. These high risk areas were reviewed alongside other data sources such as community responses, flood history and local knowledge before being taken forward as the areas of focus for the Strategy.

1 https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management-strategies-lfrms-guidance/develop-local

4. **Initial development of objectives and measures**: following on from collated information from local plans and strategies emerging from the literature review, and information from the community questionnaire and hotspot analysis, an initial draft was formed compiling ideas for objectives and measures to set out in the Strategy review.
5. **Stakeholder workshop**: stakeholder mapping was undertaken with North East Lincolnshire Council to capture the range of stakeholders to consult over the course of the Strategy review and the stages of consultation. Following initial contact, all key stakeholders to involve attended a stakeholder workshop to review the draft objectives and measures.
6. **Finalisation of objectives and measures**: discussions and feedback from the stakeholder workshop was used to finalise the objectives and measures for the Strategy.
7. **Strategic Environmental Assessment and Habitats Regulation Assessment:** a screening and scoping exercise was undertaken to assess the impact of the Strategy's updated objectives and measures against potentially significant environmental effects and potential effects on European Sites respectively.
8. **Development of the full Strategy**: the final stage was to bring all the findings from the initial stages together within the full Strategy, following the five stages from the Local Government Association set out above.

1.4 Links with the National Flood and Coastal Erosion Risk Management Strategy

The Environment Agency (EA) has a statutory duty to develop, maintain, apply and monitor a National FCERM Strategy for England. This was last updated in 2020, and is available on the Government website, here[2]. This Strategy describes what needs to be done by all risk management authorities (RMAs) involved in flood and coastal erosion risk management for the benefit of people and places. This Strategy seeks to better manage the risks and consequences of flooding from rivers, the sea, groundwater, reservoirs, ordinary watercourses, surface water and sewers and coastal erosion.

The 2020 Strategy sets out three long-term ambitions, underpinned by evidence about future risk and investment needs. They are:

- Climate resilient places: working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change.
- Today's growth and infrastructure resilient in tomorrow's climate: making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as infrastructure resilient to flooding and coastal change.

2 https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england--2#full-publication-update-history

- A nation ready to respond and adapt to flooding and coastal change: ensuring local people understand their risk to flooding and coastal change, and know their responsibilities and how to take action.

1.5 Strategic Environmental Assessment and Habitats Regulation Assessment

The Strategic Environmental Assessment (SEA) and Habitat Regulations Assessment (HRA) are statutory documents which are sometimes required when developing objectives which may impact an area.

1.5.1 Strategic Environmental Assessment

When preparing a LFRMS, it is a statutory requirement to carry out a SEA to identify any potentially significant environmental effects arising from the implementation of the strategy. SEA is an integrated, systematic appraisal of the potential environmental impacts of policies, plans, strategies, and programmes during their development before they are approved. It ensures that implications for the environment have been fully and transparently considered. It considers a range of environmental issues including biodiversity, population, human health, flora and fauna, soils, water, air, climate, material assets, heritage, landscape, and the interactions among these factors.

A screening exercise and scoping report were undertaken to support the Strategy, followed by a SEA Report. This report did not identify any significant effects of the Strategy, and that in fact many of the proposed measures have the potential for direct or indirect benefits. See the SEA Report in Appendix C for more detail.

1.5.2 Habitat Regulations Assessment

The purpose of the HRA is to identify, describe and assess the likely significant effects of implementing the strategy on European designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites) within and around North East Lincolnshire. The HRA provides NELC information to assist in their consideration of whether the proposed strategy will have likely significant effects on European Sites, and in ascertaining any adverse effects on their integrity.

No significant effects were identified through the Strategy, therefore there is no need for an Appropriate Assessment. See the HRA Report in Appendix D for more detail.

1.6 Other plans, policies, strategies, and legislation

In addition to the National FCERM Strategy, this section details other policies, strategies, and legislation which have been published or updated since the previous Strategy was published in 2015, and will influence flood risk management across North East Lincolnshire.

1.6.1 Humber River Basin District Flood Risk Management Plan 2021 to 2027

The six-year cycle of assessment, mapping and planning required under the Flood Risk Regulations (2009) requires the development of Flood Risk Management Plans (FRMPs). The development of the FRMPs is led by the EA and requires the assessment of flooding from main rivers, the sea, and reservoirs. The first FRMPs were published in 2016 and the second cycle plans which describe actions to manage flood risk across England between 2021 and 2027 were published in December 2022.

North East Lincolnshire lies within the Humber River Basin District (RBD). NELC have contributed local flood risk information which is included in the Humber RBD FRMP.

The Humber RBD FRMP is available on the Government website, here[3].

As of 1 January 2024, the Retained EU Law (Reform and Revocation) Bill automatically repealed any retained EU law (REUL) not otherwise preserved or replaced in UK law before the end of 2023, including the Flood Risk Regulations 2009 which transposed the EU Floods Directive into legislation. This is because much of the FRRs is duplicated in existing domestic legislation, namely the Flood and Water Management Act 2010. The EA and LLFAs in England will therefore no longer be required to comply with the third cycle of planning, however the government expects to see continued implementation of the FRMPs 2021-2027.

1.6.2 The Humber 2100+ Strategy

The EA and 12 Local Authorities from around the Humber, including NELC, are working in partnership to develop a new strategy that will address the tidal flood risk at the Humber Estuary and enable sustainable growth now and for the next 100 years.

The Humber 2100+ Strategy will replace the current flood risk management strategy, 'Planning for the Rising Tides' which was put in place in 2008. The 2013 tidal surge gave the EA better evidence for how flood water will behave and has made the case for the new Strategy to be developed.

Further information can be found on the EA's dedicated Humber 2100+ Information Page, here[4].

1.6.3 North East Lincolnshire Local Plan

Local Plans are a statutory planning policy document produced by Local Planning Authority's (LPA's) providing the basis for planning decisions in the borough. The current North East Lincolnshire Local Plan was adopted in 2018 and is currently undergoing a three year review process which commenced in 2021.

The local plan review will seek to:

- Simplify the Local Plan
- Focus on local priorities

3 https://www.gov.uk/government/publications/humber-river-basin-district-flood-risk-management-plan

4 https://consult.environment-agency.gov.uk/humber/strategyreview/

- Not repeat national guidance
- Provide a framework for development in North East Lincolnshire to be a place where people are proud to live, work, invest and visit

This Strategy will be used to inform the local plan review. Further information on the local plan review is available on the NELC website, here[5].

1.6.4 North East Lincolnshire Council Plan, 2022

The North East Lincolnshire Council Plan was agreed in February 2022. The priorities and vision for North East Lincolnshire are 'To create a stronger economy and stronger communities'. The main aims from this Plan to be considered within this Strategy update are:

- Where business can sustain and grow.
- Where citizens of all ages live active, health, and independent lives and are much less dependent on public institutions as a result.
- Where people are proud to live, work, invest and visit.

The Council Plan can be downloaded from the NELC website, here[6].

1.6.5 North East Lincolnshire Council Natural Assets Plan, 2021

The Natural Assets Plan sets out how the Council and its partners can improve the area's unique natural environment for the benefit of everyone. It sets out the current situation and what actions the Council plans to take in the short, medium and long term to improve it.

The Natural Assets Plan focuses on eight themes:

- Planning out future land use
- Managing our open spaces
- Biodiversity and special sites
- Trees and woodlands
- Water management
- Improving air quality
- Protecting health and wellbeing
- Education, involvement, and enjoyment

The Natural Assets Plan can be downloaded from the NELC website, here[7].

1.6.6 Preliminary Flood Risk Assessment Review, 2017

5 https://www.nelincs.gov.uk/planning-and-building-control/planning-policy/local-plan-review/

6 https://www.nelincs.gov.uk/your-council/council-plan-vision-and-aims/

7 https://www.nelincs.gov.uk/keeping-our-area-clean-and-safe/climate-change/natural-assets-plan/

The first Preliminary Flood Risk Assessment (PFRA) was produced by the Council in 2011, as required by the Flood Risk Regulations 2009, to provide a summary of local flood risk for past and future flooding. This PFRA can be downloaded from the Council website, here[8].

The regulations set out that the PFRA should be refreshed every six year.

The Council published a PFRA addendum in 2017, available on the Government website, here[9]. This highlighted that there were pluvial flooding events in 2012 and 2014, caused by intense summer rainfall events, which affected locations not previously thought to be at significant flood risk. The main issue that came out of the flooding was the extent of the areas in Grimsby and Immingham that are served by drainage systems that can be overwhelmed by intense summer rainfall events.

Groundwater flooding is also noted as becoming of increasing concern as groundwater abstraction reduces due to the decline of industrial water abstraction in the area. A Working Group has been formed between representatives of Anglian Water, the EA, and NELC to determine any necessary measures to manage the increased threat of groundwater flooding.

1.6.7 Strategic Flood Risk Assessment update 2022

North East Lincolnshire published an updated Strategic Flood Risk Assessment (SFRA) for the area in 2022, in collaboration with North Lincolnshire Council and the EA. This SFRA can be downloaded from the Council website, here[10].

This update was required to ensure the SFRA provides a comprehensive and robust evidence base to inform the review of the North East Lincolnshire Local Plan.

SFRAs are a study carried out by the LPA to assess the risk to an area from all sources of flooding for the present day and in the future. It provides the information needed for the Council to take flood risk and climate change into account when allocating development as part of the Local Plan or determining planning applications.

8 https://www.nelincs.gov.uk/keeping-our-area-clean-and-safe/flooding/flood-strategies-and-investigations/#:~:text=Preliminary%20Flood%20Risk%20Assessment%20(PFRA)%20(PDF)%20is%20required,as%20required%20by%20the%20regulations.

9 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698268/PFRA_North_East_Lincolnshire_2017.pdf

10 https://www.nelincs.gov.uk/planning-and-building-control/planning-policy/the-local-plan/local-plan-background-information/strategic-flood-risk-assessment/

2 Flood risk management roles and responsibilities within North East Lincolnshire

2.1 Flood risk management authorities' powers, duties, and legislation

There are many organisations that are involved in and have a contribution to make to flood risk management in the borough. The FWMA 2010 specifically designates NELC, the EA, the Drainage Boards, Anglian Water and Highway Authorities as RMAs. This designation is used by the FWMA 2010 to bestow additional requirements which do not apply to all those involved in flood risk management. Risk Management Authorities have a duty to cooperate where they exercise their flood risk functions and act consistently with the National and Local Strategies with the exception of water and sewerage companies who only need to have regard to the Local Strategy.

The legislation used by the RMAs is mostly ‘permissive’ which means there is no legal requirement to carry out works to reduce the risk of flooding. However, the FWMA also includes statutory duties for RMAs including producing LFRMS's, Section 19 investigations, land drainage consents and consulting on major developments.

2.2 North East Lincolnshire Council

NELC has a number of different roles which contribute to flood risk management.

2.2.1 Lead Local Flood Authority

As the Lead Local Flood Authority (LLFA) for the borough, NELC have the following responsibilities which they undertake by working closely with other RMAs:

- Coordinating the management of local flood risk which includes surface water runoff, groundwater and ordinary watercourses.
- Woking closely with other RMAs to plan maintenance and improvement works to ensure the drainage systems are able to operate during a flood event.
- Ordinary watercourse regulation. As a unitary authority, NELC already have powers under sections 14, 15, 20 and 25 of the Land Drainage Act 1991 to maintain the flow in ordinary watercourses. As the LLFA, NELC now have additional powers under sections 23 and 24 which gives them consenting and enforcement powers for certain works which are carried out (generally applies to works which will affect the flow of water or culverting). In the Internal Drainage Board (IDB) areas, they undertake this function, which is discussed further in Section 2.4.
- A duty under Section 19 of the FWMA 2010 to investigate flood incidents to help understand how they happened, their impacts, and actions that may be taken to reduce future risk.
- Maintaining a register of assets which are considered to have a significant effect on flood risk and to clarify ownership and responsibility for on-going maintenance.

- A requirement to act in a manner consistent with the national and local strategies when exercising their powers.

2.2.2 Coast Protection Authority

NELC are designated a Coast Protection Authority under the Coast Protection Act 1949 and a Coastal Erosion Risk Management Authority under the FWMA 2010. This makes them responsible and gives the powers for managing coastal erosion on two sections of coastline: North Prom, Central Prom and Kingsway of Cleethorpes (2.4km) and the front line defence at the Humberston Fitties (1.2km). Third party activities on the coast are controlled by consenting powers. Associated British Ports (as Port Authority) and the Environment Agency are also responsible for managing sea defences along other stretches of the borough's coastline.

2.2.3 Highway Authority

As the Highway Authority under the Highways Act 1980, NELC manage the highway drainage network including pumping stations, gullies and drains. This does not include trunk roads as these are the responsibility of the National Highways. The majority of urban highway gullies drain to a public sewer operated by Anglian Water which is not the responsibility of the Council to maintain. Some parts of the highway network drain to roadside ditches which are always the responsibility of the adjacent landowner except where the ditch has been constructed for the sole purpose of draining the road. The Highway Authority has the right to use any roadside ditch for the purpose of draining the highway. More information on riparian ownership can be found on the Government website, in the EA publication 'Owning a watercourse' (2018), available from the Government website here[11].

2.2.4 Local Planning Authority

As the LPA the Council is responsible for the planning process which includes individual applications and spatial planning. The Council ensure that flood risk is taken account of at all stages of the planning process in accordance with the National Planning Policy Framework (NPPF). This includes taking account of other flood risk management plans for the area and consulting with other RMAs.

Schedule 3 of the FWMA 2010 is expected to be implemented in 2024 following a government review making SuDS mandatory for new developments in England. Schedule 3 will provide a framework for the approval and adoption of drainage systems, a SuDS Approving Body (SAB) within unitary and county councils, and national standards on the design, construction, operation, and maintenance of SuDS for the lifetime of the development. This will make the SAB responsible for adopting SuDS for new developments

11 https://www.gov.uk/guidance/owning-a-watercourse

which meet the National Standards for SuDS as set by the government. This will require close working and coordination with the Council's functions as the Local Planning Authority.

2.2.5 Category 1 Responder

Under the Civil Contingencies Act 2004 the Council are a designated Category 1 responder which gives them a duty to prepare emergency plans for major incidents including flooding. The Council work closely with the Humber Local Resilience Forum and have produced a Multi-Agency Flood Plan with the Humber Emergency Planning Service. This outlines the roles which the RMAs have and provides for a clear understanding of who should be involved in the response. The Council also has a protocol for dealing with small-scale localised flood events. This is in the form of a Local Extreme Flood Event plan which links to the Multi-Agency Flood Plan.

2.3 Environment Agency

As set out in the National Strategy the Environment Agency has the strategic overview role for all sources of flooding and coastal erosion. This includes providing evidence and advice to the government, setting direction through strategic plans, building knowledge and sharing good practice, establishing the Regional Flood and Coastal Committees and monitoring and reporting on flood and coastal erosion risk management.

They also have operational responsibility for the delivery of flood and coastal erosion risk management activities on main rivers and the coast and the regulation of reservoir safety. They regulate what works can be carried out on the main rivers and coastal defences using powers given to them by the Environmental Permitting Regulations (EPR) 2016, supplemented by the Land Drainage and Sea Defence Byelaws for the Anglian Region. These byelaws manage activities that are not covered by the EPR for flood risk. They apply to activities around main rivers, flood and sea defences and flood plains.

Flood warnings and alerts, covering main rivers and the sea, are issued by the Environment Agency to people who sign up to their Floodline Warnings Direct service – these are informed by the Flood Forecasting Centre which is run in partnership with the Met Office.

The Environment Agency are a statutory consultee in the planning process for certain applications. Advice on when to consult the Environment Agency can be found on the Government website, here[12].

2.4 Internal Drainage Boards (IDBs)

IDBs are established in particularly low-lying areas of England where land drainage and flood defence are necessary to protect both agricultural and developed land. The Boards are made up of directly elected members representing landowners and also members nominated by local authorities who contribute to their funding.

12 https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

IDBs have powers under the Land Drainage Act 1991 to supervise the drainage of land in their areas which includes similar consenting and enforcement powers that the Council has in relation to ordinary watercourses.

The two IDBs with responsibilities in our borough are the Lindsey Marsh IDB and the North East Lindsey IDB. They must carry out their functions in a manner that is consistent with the national and local strategies.

Whilst the Lindsey Marsh IDB only covers a small area in the south of our borough, the North East Lindsey IDB covers the majority of the north of the borough plus the flood plains of the Laceby Beck/River Freshney and Buck Beck catchments. There is billions of pounds worth of industrial infrastructure within this Board's district.

2.5 Water and sewerage companies

The water and sewerage company in the borough is Anglian Water. Under section 94 of the Water Industry Act 1991 they have a duty to provide, maintain and operate systems of public sewers and works for effectively draining the borough. This does not include highway drainage, land drainage, groundwater, or watercourses although highway drainage can be accepted on agreement with the Highway Authority. The majority of water from the highways in urban areas is drained using gullies maintained by the Council which connect to sewers operated by Anglian Water.

They are responsible for managing the risks of flooding from foul, combined and surface water sewers as well as from burst water mains – problems can be reported to a 24 hour call centre and online.

They keep a register of properties which are known to be at risk of flooding, this is known as the DG5 register. This is required by Ofwat, the Water Services Regulation Authority, as part of a set of DG (Director General) indicators used to monitor their performance. This includes all properties that have suffered or are likely to suffer flooding from public foul, combined or surface water sewers due to overloading of the sewerage system. A system is overloaded when flow is unable to pass through it due to permanent problems such as flat gradients or small diameters and not temporary problems such as blockages or pipe collapse.

Anglian Water also published their Drainage and Wastewater Management Plan in May 2023, which sets out how wastewater systems and the drainage networks that impact them are to be maintained, improved and extended over the next 25 years. Through this Plan, catchments with pressures on the drainage and wastewater networks are identified and allocated to the medium- or long-term plans for investment.

2.6 National Highways

The National Highways is an Executive Agency of the Department for Transport and are responsible for operating, maintaining and improving the strategic road network. In North East Lincolnshire they are responsible for the A180.

They have sole responsibility for dealing with the surface water run-off from their roads. For new road projects this will include making sure that flood risk is not increased.

They are also responsible for identifying which of their roads are at flood risk and implementing measures to manage this.

2.7 Regional Flood and Coastal Committees

The Regional Flood and Coastal Committee (RFCC) is established by the Environment Agency under the FWMA 2010 with majority membership representing LLFAs and independent members with relevant experience for the following purposes:

- To ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines.
- To promote efficient, targeted and risk-based investment in flood and coastal erosion risk management that optimises value for money and benefits for local communities.
- To provide a link between the Environment Agency, LLFAs, other risk management authorities, and other relevant bodies to engender mutual understanding of flood and coastal erosion risks in its area.
- To collect the General Drainage Charge which applies to the Environment Agency Anglian Region only. This generally only applies to agricultural land, commercial woodlands and woodlands in a Defra or Forestry Commission scheme. The money is used to supplement schemes and other local priorities.

The Council is a member of the Anglian Northern RFCC which approves the programme of flood risk management work to go on the FCERM investment programme and also has the power to raise money through the use of the Local Levy on Councils. This can be used to fund local priorities or support schemes in attracting national funding.

2.8 Neighbouring LLFAs

The neighbouring LLFAs to NELC are North Lincolnshire Council and Lincolnshire County Council. We will ensure that we work with these authorities on flood risk issues which cross boundaries. This includes working together to coordinate our approach to coastal flood risk management through the Shoreline Management Plan and the Humber Flood Risk Management Strategy. There may also be some opportunities for sharing resources where works are close to local authority boundaries.

NELC are in regular contact with their neighbouring LLFAs to discuss these issues and explore further opportunities for working together. The announcement of a devolution deal between the Government and the local authorities of Lincolnshire County Council, North East Lincolnshire, and North Lincolnshire Council was made in November 2023. The new Greater Lincolnshire Authority will set the strategy for the individual LLFAs, which will sit at

unitary level. More information on the Greater Lincolnshire devolution deal can be found on the Government website here[13].

2.9 Other organisations involved in flood risk management

The following organisations or groups of people are not referred to in the FWMA but they do have a role to play in contributing to the management of local flood risk:

2.9.1.1 Parish and Town Councils and Communities

The Council's Drainage and Coastal Defence team have established good relationships with parish and town Councils. They are more likely to have initial contact with flood victims and can refer people to the Council for additional help.

Parish and Town Councils will be an important link when engaging with communities at risk of flooding and will often have good knowledge of the history of the area. They will also play an important role in developing community emergency plans to help prepare communities for flooding.

As communities will be involved in influencing plans and work for their area this could also be done through parish and town Councils or specific community groups set up in response to floods. It is important to ensure that all of those affected have an opportunity to be heard but this will vary depending on how people choose to represent themselves.

2.9.1.2 Associated British Ports (ABP)

ABP are responsible for maintaining the flood defences around the ports in Grimsby and Immingham. These defences protect the port estates but also some residential areas. ABP operate an emergency plan to minimise disruption and aid recovery in the aftermath of a flood.

2.9.1.3 Utility/Infrastructure Providers

Some utility and infrastructure providers will have assets that are classified as 'critical'. Critical infrastructure includes assets that are vital to the delivery of essential services without which there could be severe economic or social consequences. Such infrastructure includes electricity, water and gas supplies, transport infrastructure, communications and health services. The organisations responsible for this infrastructure will be responsible for protecting it from flooding.

2.9.1.4 Land and Property Owners (Riparian Owners)

Landowners who have a watercourse running through or bordering their land are referred to as riparian owners. This comes with rights and responsibilities. Riparian owners are responsible for the bed and banks and any vegetation that is growing. Flows must not be

13 https://www.gov.uk/government/publications/greater-lincolnshire-devolution-deal-2023

obstructed and any structures such as trash screens and culverts will need to be kept free of debris to allow the free passage of water. Failure to do this could result in flooding of their property and that of their neighbours. If works are proposed in the channel or adjacent to it permission should be sought from the relevant Risk Management Authority as described previously (either NELC, the Drainage Board or the Environment Agency).

As well as being responsible for general maintenance, riparian owners can also help to reduce flood risk downstream of their land through changes to land management practices by holding rainfall on or within the ground before it reaches a watercourse.

The culverting or piping of a length of watercourse makes no difference to riparian responsibilities and the Land Drainage Act 1991. The general assumption is that for watercourses that form the boundary between two properties the owners of each property will own up to the middle of the watercourses unless the deeds to the property state otherwise. Responsibility for roadside ditches, both open and piped, causes a lot of confusion with many adjacent landowners unaware that they are the riparian owners of these ditches. Generally, the only exceptions to this are if the ditch has been dug by the Highway Authority for the primary purpose of draining the public highway so the responsibility will stay with them. Or, in areas in which NELC own the land, such as land purchased under Compulsory Purchase Order (CPO) to widen / realign sections of highway. In this circumstance, NELC has the riparian duties as landowner, and not as its function as Highway Authority.

Property owners of domestic and commercial premises are responsible for the drains within the curtilage of their property. This means maintaining drains in an operational condition so water can flow and ensuring that nothing could enter the system which would cause a blockage.

Responsibility for protecting private property from flooding rests with the owner and not any of the RMAs.

2.9.1.5 Environmental Groups and Organisations

The following organisations are able to provide advice and guidance on protecting the environment which will be particularly useful when designing schemes or projects that can have an environmental as well as a flood risk benefit.

- Natural England is the national government advisor who provide advice on how to protect the natural environment. Their remit is to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations. Their work includes building an evidence base on the natural environment, managing environmental stewardship schemes, providing advice to the land owners and the planning system on protecting the natural environment and issuing licences for works on protected sites. Advice from Natural England has helped with the completion of the Habitats Regulations Assessment (see section 6 for further information).

- North East Lincolnshire is covered by two Nature Partnerships: Greater Lincolnshire and Humber. These bring together interested stakeholders to work together to protect and enhance the environment.
- There are also local groups such as Lincolnshire Wildlife Trust who safeguard wildlife in Lincolnshire by protecting and creating wildlife habitats, advise decision makers and encourage enjoyment of the natural environment.
- There are projects going on by different environmental and nature organisations that can also have a contribution to reducing flood risk, for example by providing additional storage within the catchment.

2.10 Local partnerships and governance

2.10.1.1 North East Lincolnshire Flood Risk Strategy Board

The North East Lincolnshire Flood Risk Strategy Board was formed in January 2022. It aims to deal with the more strategic elements of flood risk management including potential new funding streams, capital programmes oversight, and providing a link to the borough's economic development aspirations.

2.10.1.2 North East Lincolnshire Local Flood Risk Management Group

The complex interactions that exist between drainage systems and watercourses requires good partnership working arrangements between the RMAs listed in the previous section.

NELC have been chairing the Drainage Infrastructure Group since the summer floods of 2007. This was given further emphasis in the FWMA 2010 when the Council was designated as the LLFA and was required to take a strategic lead over local flood risk management. The group has recently changed to the Local Flood Risk Management Group to reflect the range of responsibilities the Council has as LLFA. The group currently meets four times a year with the following permanent members:

- North East Lincolnshire Council.
- EQUANS.
- The Environment Agency.
- Anglian Water.
- North East Lindsey Drainage Board.
- Lindsey Marsh Drainage Board (attendance as required by agenda).

The group has its own terms of reference which facilitates:

- The sharing of information and knowledge between members.
- Development of options to reduce the risk of flooding which can be a collaboration between several members.
- The sharing of resources, for example for maintenance activities and emergency response, which means funds can stretch further.

- The opportunity for new planning applications to be considered in relation to all sources of flooding to ensure flood risk is fully considered.

2.10.1.3 Local Resilience Forum

The Local Resilience Forum is attended by risk management authorities, local government, the Environment Agency, emergency services, health services and utility and transport organisations.

It plans for a range of emergency situations, of which flooding is one, by developing, maintaining and monitoring the Multi-Agency Flood Plan.

3 Understanding flood risk within North East Lincolnshire

3.1 Overview

3.1.1 Study area

According to the Office for National Statistics population estimates in 2021, 156,900 people live within the North East Lincolnshire borough. The borough covers an area of approximately 196 square kilometres and includes the towns of Grimsby, Immingham and Cleethorpes. North East Lincolnshire is bordered by the neighbouring authorities of North Lincolnshire, and West Lindsey District and East Lindsey District within Lincolnshire County.

3.1.2 Topography

The EA 1m LiDAR shows the land elevations across North East Lincolnshire (Figure 3-1). The land is highest in the south west and slopes downhill towards the coastal boundary along the eastern boundary of the borough. In general, the borough is quite low-lying making it more vulnerable to flooding than areas at higher elevation.

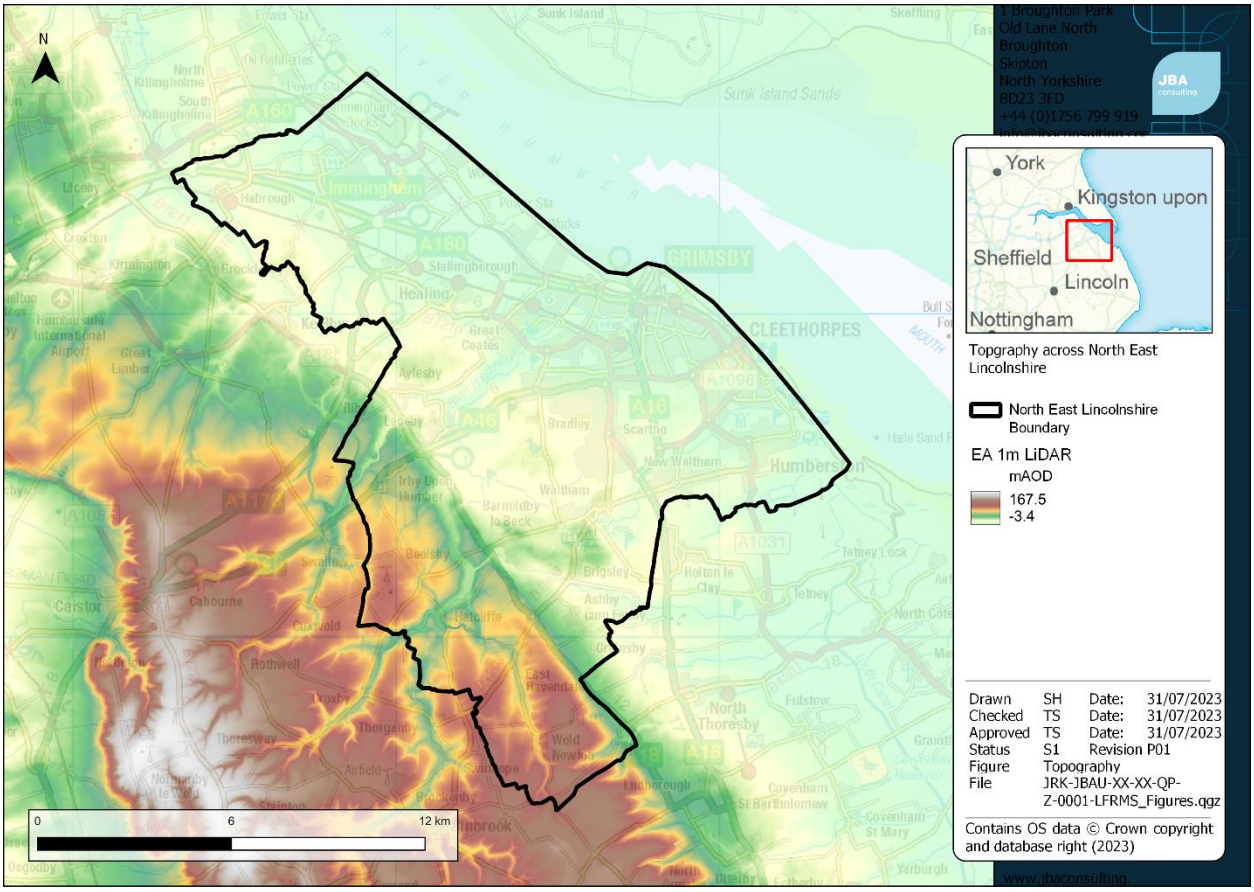


Figure 3-1: EA 1m LiDAR showing the topography across North East Lincolnshire.

3.1.3 River basin districts and catchments

North East Lincolnshire is within the Humber RBD. There are 18 EA Management Catchments within the Humber RBD, but the entirety of the borough is covered by the Louth Grimsby and Ancholme Management Catchment.

There are nine Water Framework Directive (WFD) catchments, within or partially within North East Lincolnshire, which will influence flood risk within the borough. Catchments are defined as an area of land from which all surface run-off flows through a series of streams, rivers and, possibly, lakes to a particular point in the water course such as a river confluence. These catchments are shown in Figure 3-2.

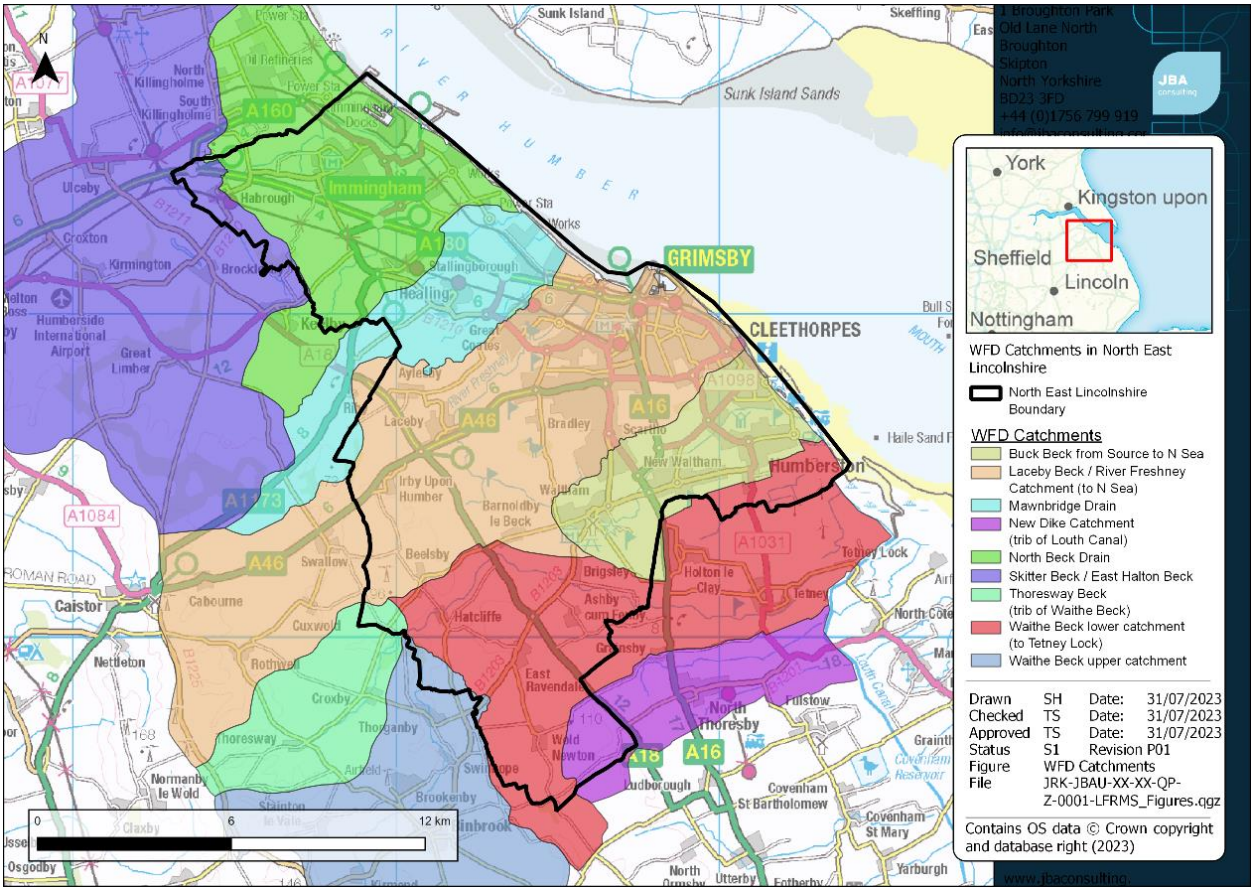


Figure 3-2: WFD Catchments in North East Lincolnshire.

3.2 Types of flooding

The public consultation highlighted the variety of flooding sources which present a risk across North East Lincolnshire. The main sources of flooding are:

- **Flooding from ordinary watercourses** – also known as fluvial flooding. This occurs when capacity in the system is reached, or a blockage causes water to come out of the channel and flow across land.

- **Surface water flooding** – also known as pluvial flooding. This occurs when, usually intense, precipitation falls onto the ground, flows over or collects on the surface and does not enter a watercourse or drainage system.
- **Groundwater flooding** – caused by water levels in rocks and soil rising until it appears above the ground surface.
- **Sewer flooding** – from the public sewer system. As defined by the FWMA 2010 flooding from this source is only covered by this strategy if it is wholly or partly caused by an increase in precipitation entering the system, not by blockages.
- **Coastal flooding**– high tides and storm surges can overtop or breach defences causing flooding inland.
- **Flooding from main rivers** – the same as for ordinary watercourse flooding.

Flooding from ordinary watercourses, surface water, and groundwater are considered by the FWMA 2010 to be local sources of flood risk which need to be included within this strategy. Sewer flooding, coastal flooding and erosion, and flooding from main rivers will also be included in the strategy since they have a large influence across the borough.

Every flood will have a different impact on people, property and the environment with the consequences of flooding depending greatly on land use. For example, overtopping and/or breach of a flood defence in a densely populated urban area poses a greater threat to life than in a rural area. The different sources of flood risk can also combine which can make the consequences more difficult to predict.

The updated SFRA for NELC published in 2022 provides mapping of historic flood events across the borough, which shows a large number of incidents, widespread throughout the settlements within the borough. This mapping can be found on the NELC website here[14].

The following section looks at each source of flooding in more detail across North East Lincolnshire.

3.3 Assessment of flood risk across North East Lincolnshire

3.3.1 Flooding from rivers

Fluvial flooding occurs when the capacity of a watercourse is exceeded or when there are downstream restrictions to flow. This results in inundation of floodplains along rivers and watercourses, but also in inundation of areas outside the floodplain due to influence of bridges, embankments and other features that artificially raise water levels, overtopping or breaching of defences, blockages of culverts and blockages of flood channels/corridors. Due to the low-lying nature of the borough, which has a large tidal floodplain, some watercourses rely on pumping stations to discharge during high tide periods, as without these they can become tide locked.

14 https://www.nelincs.gov.uk/planning-and-building-control/planning-policy/the-local-plan/local-plan-background-information/strategic-flood-risk-assessment/

The Humber RBD FRMP has identified that in the Cleethorpes Flood Risk area some 18,514 people live in areas at risk of flooding from rivers and the sea, with 6% in areas of high risk. In the Grimsby Flood Risk Area 51,623 people live in areas at risk of flooding from rivers and the sea, although less than 1% of these are in areas of high risk. In the Immingham Flood Risk Area, 5,934 people live in areas at risk of flooding from rivers and the sea, although less than 1% are in areas of high risk.

The main watercourses within North East Lincolnshire are:

- River Freshney
- Stallingborough North Beck
- Waithe Beck
- Buck Beck
- Oldfleet Drain
- New Cut Drain

Figure 3-3 shows the main watercourses within North East Lincolnshire, split into EA designated main rivers and ordinary watercourses.

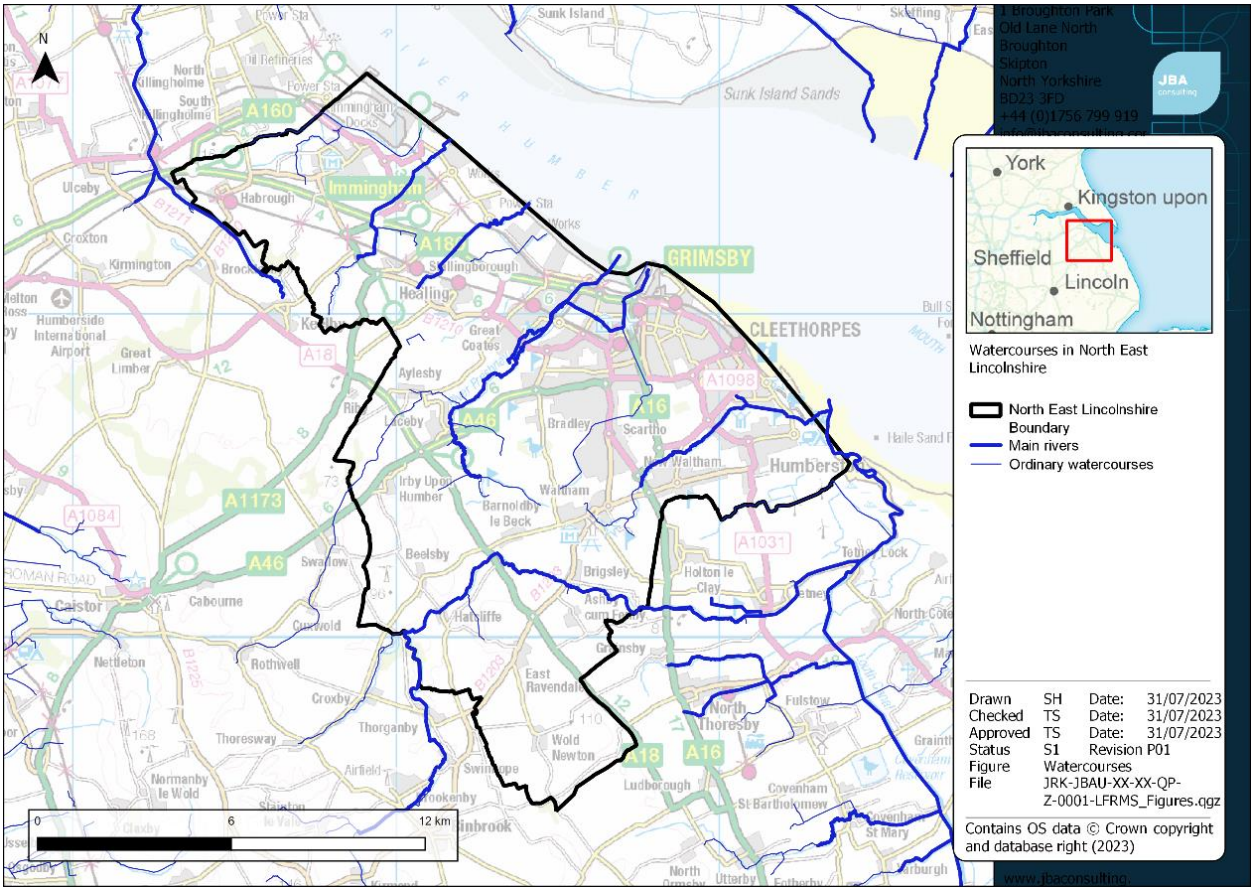


Figure 3-3: Main rivers and ordinary watercourses in North East Lincolnshire.

The Environment Agency Flood Map for Planning (FMfP) shows modelled flood extents, ignoring the presence of flood defences, for two events:

- Flood Zone 3 - land with greater than a 1% AEP (1 in 100 chance of flooding each year) from rivers or a 0.5% AEP (1 in 200 chance of flooding each year) from the sea.
- Flood Zone 2 - land with greater than a 0.1% AEP (1 in 1000 chance of flooding each year) from rivers or the sea.

Figure 3-4 shows the FMfP extents across North East Lincolnshire.

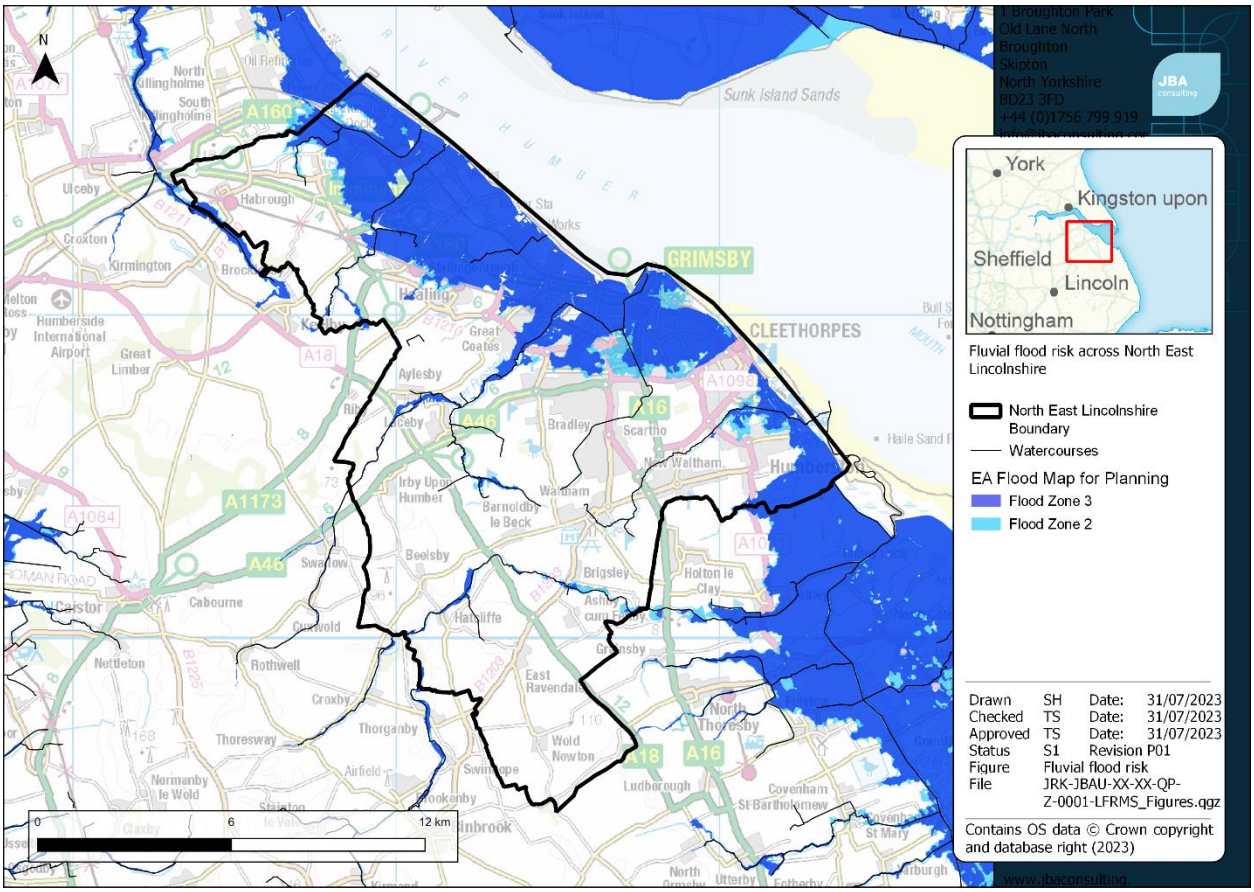


Figure 3-4: EA FMfP dataset showing fluvial flood risk across North East Lincolnshire.

Within the previous LFRMS, June 2007 was highlighted as a notable historic flood event with fluvial flooding affecting the settlements of Grimsby, Immingham, Waltham, Brigsley, Great Coates and Stallingborough. The most notable fluvial flooding incident in 2007 was on the Willows Estate in Grimsby when the River Freshney overtopped its defences which combined with surface water and resulted in 186 properties experiencing internal flooding.

The Environment Agency Recorded Flood Outlines dataset does not have any records of fluvial flooding along main rivers within the borough since the publication of the previous Strategy in April 2015.

From the NELC Section 19 Flood Investigation report, developed following the flooding in November 2019, there were some reports of this prolonged heavy rainfall resulting in flooding as a result of the overtopping of ordinary watercourses. Three properties along

Great Coates Road, Healing, flooded internally due to an ordinary watercourse which runs along the front boundary of the properties. The water first emerged where the watercourse becomes piped and there is a vertical screen which is subject to blockages. This watercourse is under the riparian ownership of the residents of each property whose front boundary it runs along, with 13 different riparian owners. Two properties were also affected by external flooding along Bradley Road, Grimsby, as a results of overtopping of the ordinary watercourse which runs along the north boundary of the properties. The surface water runoff into the watercourse overwhelmed the outfall from the open watercourse into the piped section of watercourse causing the watercourse to overtop. Two chalets at Humberston Fitties were also flooded internally as a result of the ordinary watercourse which runs along the rear boundary of the two chalets overtopping as runoff levels exceeded capacity of the culverted section of the watercourse to the east of the chalets.

There was also a near-miss incident in Hatcliffe a couple of years ago, where water levels rose on Waithe Beck with a risk of overtopping into the village, however, the watercourse did not overtop on this occasion.

3.3.2 Surface water flooding

Intense rainfall, often of short duration, that is unable to soak into the ground or enter drainage systems can run quickly off land and result in local flooding. This can be a problem especially when the land is either extremely dry or wet. In developed areas, this flood water can be polluted with domestic sewage where foul sewers surcharge and overflow. Local topography and the built environment can have a strong influence on the direction and depth of flow. The design of development down to individual plot level can influence or exacerbate this. Overland flow paths therefore need to be taken into account when planning new developments.

There are strong interactions between surface water flooding and flooding from the sewer system. If drain covers become blocked or do not have enough capacity water will stay on the surface and flow to lower spots where it will pond and cause flooding. Sewer flooding is discussed further in Section 3.3.4. There is also interaction between surface water flooding and high tidal or fluvial levels, where drainage systems cannot discharge and cause flooding.

The causes of surface water flooding are what makes it difficult to predict. Whilst weather forecasts can predict that heavy rain could be due in a region it is impossible to predict this down to an individual street level which is where surface water usually causes problems.

The EA, working with LLFAs, produce mapping of surface water flood risk in their Risk of Flooding from Surface Water (RoFSW) dataset, shown in Figure 3-5. These maps do not make allowance for tide locking, where drainage networks cannot discharge into rivers or the sea due to high levels. At the time of writing, the EA is also carrying out a national update of the RoFSW as part of the National Flood Risk Assessment 2 (NaFRA2) project which is due for completion in 2024.

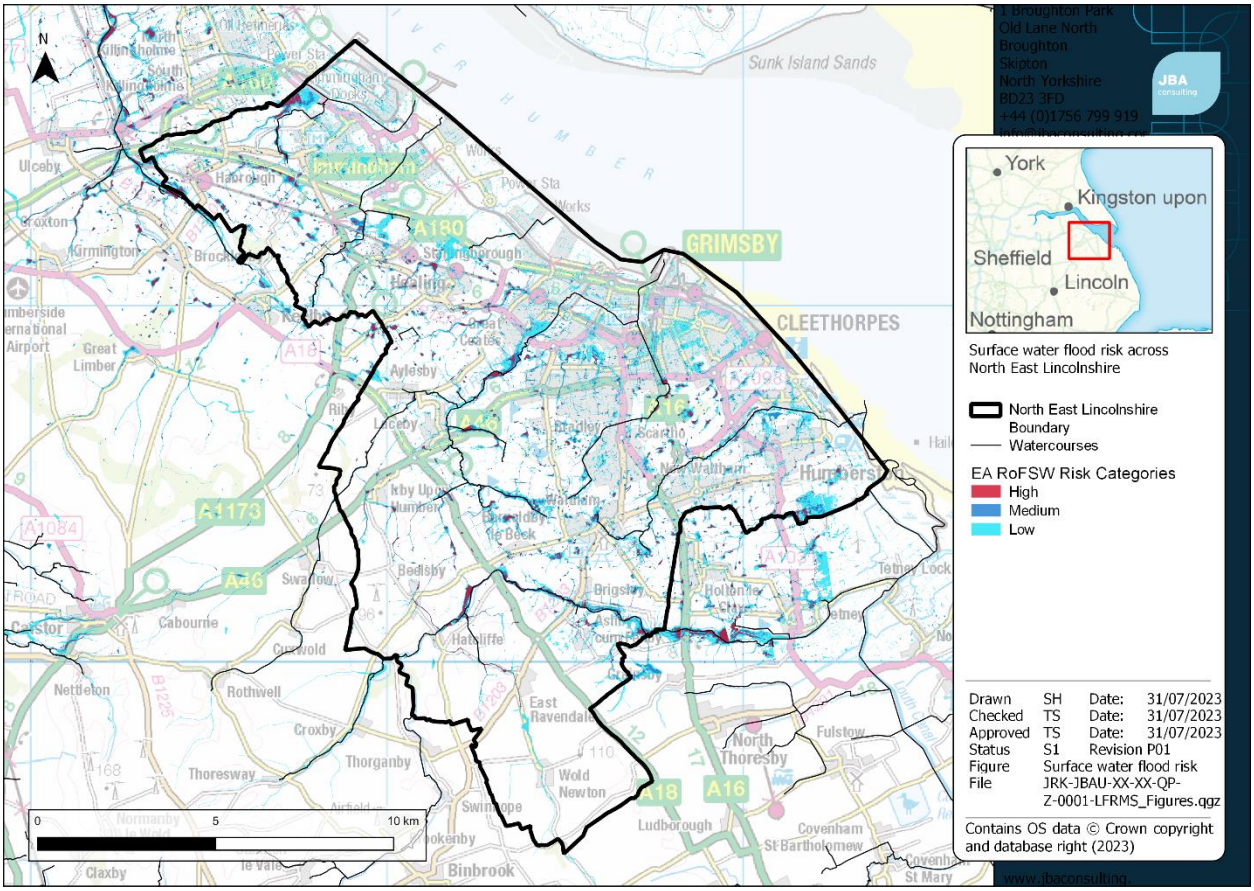


Figure 3-5: RoFSW mapping showing surface water flood risk across North East Lincolnshire.

Table 3-1 below describes the categories used in the national RoFSW mapping.

Table 3-1: RoFSW risk categories

Category	Definition
High	Flooding occurring as a result of rainfall with a greater than 1 in 30 chance in any given year (annual probability of flooding 3.3%).
Medium	Flooding occurring as a result of rainfall of between 1 in 100 (1%) and 1 in 30 (3.3%) chance in any given year.
Low	Flooding occurring as a result of rainfall of between 1 in 1,000 (0.1%) and 1 in 100 (1%) chance in any given year.

The mapping shows that surface water predominantly follows topographical flow paths of existing watercourses or dry valleys and can pond in low-lying areas. Whilst in a lot of cases the risk is confined to roads, there are notable prominent run-off flow routes around properties. There is significant risk shown across areas of the town of Grimsby.

The previous Strategy identified surface water flooding in Immingham in 2012 as a result of heavy rainfall. Extensive maintenance and repair works have been undertaken in this area and the risk has been reduced in some locations but remains high in a number of locations.

Since the publication of the previous Strategy there have been further surface water flooding events across the borough.

The Humber RBD FRMP identified approximately 20 properties in North East Lincolnshire affected by surface water flooding in August 2017 as a result of prolonged heavy rainfall. The Council published a Section 19 Flood Investigation report following this event which identified flooding in several areas:

- Immingham - 11 properties flooded internally as a result of a combination of overland surface water runoff and the surface water sewer system being overwhelmed. At least 10 properties would have been at risk of internal flooding should the rainfall have continued due to the surface water system being overwhelmed however mitigation measures installed by NELC and Anglian Water prevented internal flooding, including an overflow and anti-flood airbricks.
- Habrough - one property flooded internally and at least 12 properties are at risk of internal flooding with extensive external flooding reported due to the village's surface water drainage system being overwhelmed.
- Grimsby - several areas of Grimsby were affected with at least four properties flooded internally and several more affected by external flooding as a result of surface water runoff and overwhelming of the public sewerage systems in the borough.
- Cleethorpes and Humberston - at least 12 properties in North Sea Lane were affected by external flooding due to the surface water runoff from the adopted highway and private road. This area has also been subject to surface water flooding incidents in 2014, 2015, and 2016.

More recently, there was further surface water flooding in November 2019 due to prolonged heavy rainfall, after which the Council also published a Section 19 flood investigation report. Several areas were reported to experience flooding as a result of ordinary watercourses overtopping as a result of the surface water runoff into them exceeding the capacity of culverted sections of the watercourse. These are reported in the fluvial flooding section above. However, in Healing there was also external flooding to seven properties along Wells Road as a result of surface water runoff from the adjacent agricultural land catchment which slopes towards these properties.

In the village of Laceby there was also a flooding incident on the 6 September 2022 which heavy rainfall overwhelming the sewerage system resulting in surface water flooding. A significant contributing factor to this flooding was wrongly connected surface water drains. A total of 21 properties reported internal flooding and there were a further 23 reports of external flooding. The source of flooding was mostly reported as surface water flooding although five of the internally flooded properties reported the source of flooding to be a

combination of surface water flooding and surcharging of the foul water sewers. Sewer flooding is discussed further in Section 3.3.4.

3.3.3 Groundwater flooding

Groundwater flooding is caused by the emergence of water from beneath the ground, either at point or diffuse locations. The occurrence of groundwater flooding is usually local and unlike flooding from rivers, does not generally pose a significant risk to life due to the slow rate at which the water level rises. However, groundwater flooding can cause significant damage to property, especially in urban areas and can pose further risks to the environment and ground stability. It is most likely to occur in low-lying areas underlain by permeable rocks (aquifers) such as the extensive chalk that underlies North East Lincolnshire and the east part of North Lincolnshire. The water is under pressure in the chalk aquifer and finds any weaknesses in the overlying ground which are known locally as blow wells.. Typically, the underground aquifers are recharged during the wetter winter period, however it usually takes a few months for the water to move through the rocks underground. Grimsby typically sees the groundwater levels peak in Spring/ Summer and most groundwater flooding is most likely in this time of the year. During very wet periods, rising water levels may lead to the flooding of normally dry land, as well as reactivating flow in ‘bournes’ which are intermittent streams that only flow for part of the time when groundwater levels are high.

Precise locations at risk of groundwater flooding are difficult to predict. Groundwater can potentially emerge anywhere throughout the borough, however within the majority of the area, approximately 10m of clay covers the aquifer, confining it below ground. There are parts of the borough more susceptible to groundwater flooding, mainly in Grimsby along the route of a medieval watercourse that ran through the town hundreds of years ago, from north to south towards Convamore Road, as far as Welsby Road. Figure 3-6 displays chalk aquifer vulnerability mapping data provided by NELC. This mapping shows areas where the major aquifer (Flamborough Chalk) is considered to be vulnerable from pollution incidents or pilling activities alongside locations known to have active groundwater springs where groundwater has previously emerged. Due to the presence of sands and gravels on the old riverbed, the soils are weaker and allow an easier route for the groundwater to emerge at the surface. Groundwater flood risk in Grimsby has been increasing over the last couple of decades, and climate change will impact the risk, particularly in Grimsby.

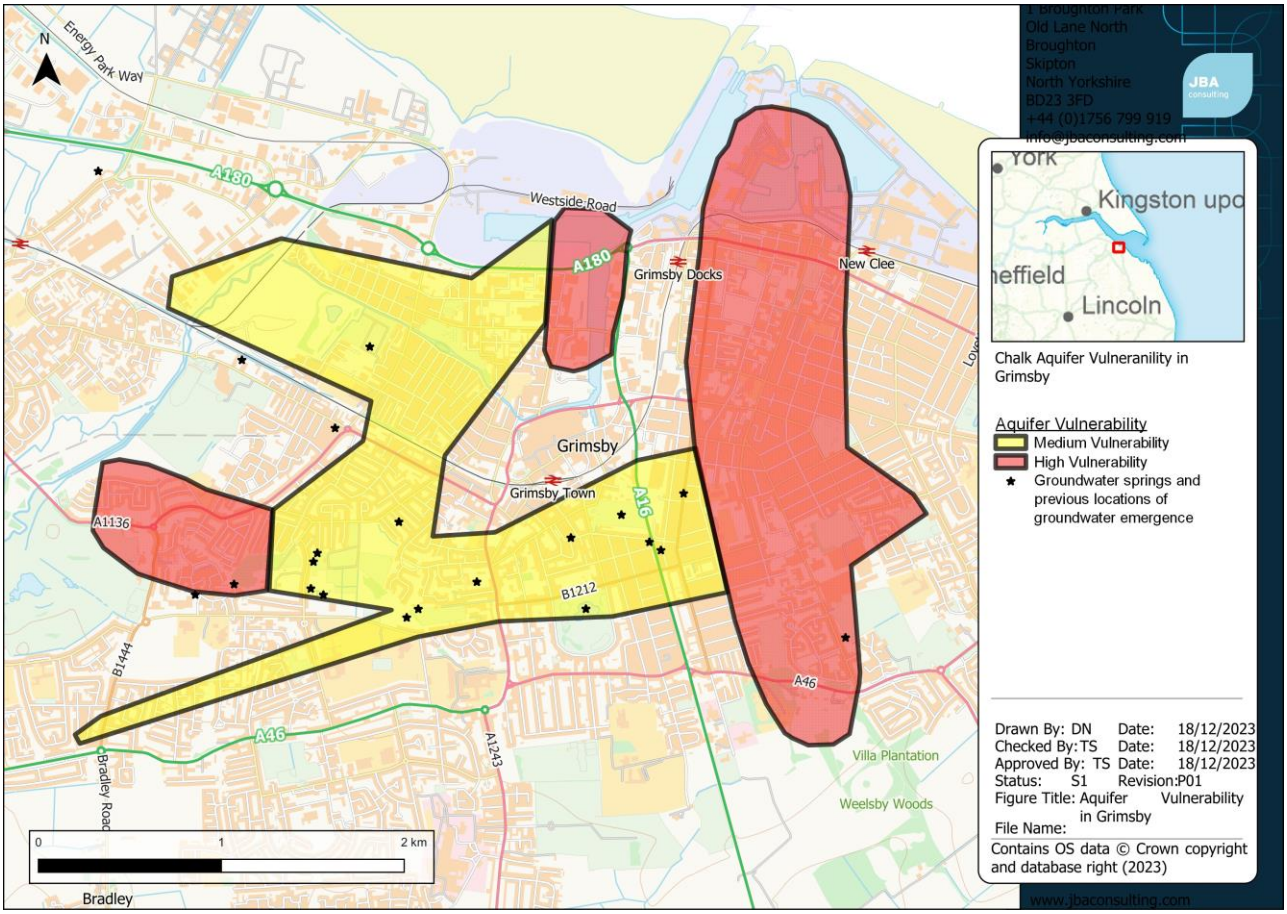


Figure 3-6- Chalk Aquifer Vulnerability and Groundwater Spring Locations in Grimsby

3.3.4 Sewer flooding

In urban areas, rainwater is usually drained into surface water sewers or sewers containing both surface and wastewater known as ‘combined sewers'.

In Grimsby and Cleethorpes there are large areas served by combined sewers, mostly in the older areas of the towns. More modern areas of development are generally served by separate systems but eventually discharging into combined sewers except where the surface water sewer is discharging to a watercourse. These locations tend to be closer to the edge of the developed areas where open watercourses are still available. Immingham is served entirely by separate systems.

Flooding can result when the sewer is overwhelmed by heavy rainfall, becomes blocked or is of inadequate capacity. When this happens to combined sewers, there is a high risk of land and property flooding with water contaminated with raw sewage. Likewise, flooding from surface water sewers, ordinary watercourses or main rivers can become contaminated as the flood waters can enter foul sewers via external domestic gullies. The other common method of cross contamination is wrongly connected surface water drains causing

surcharging of foul sewers during a rainfall event at the same time as surface water sewers are surcharging and flooding.

Areas at known risk from sewer flooding due to surcharge during rainfall events identified in the previous Strategy are detailed below:

- Some parts of the Willows and Wybers Wood estates, Grimsby – combined system. There was further internal and external flooding of property here during three intense rainfall events in summer 2014.
- North part of Heneage Ward, Grimsby – combined system
- South and north east parts of Yarborough Ward, Grimsby – combined system. The Ward was extensively affected by the summer floods of 2014 especially the north east part with a number of properties twice being internally flooded.
- Parts of Laceby – separate systems, surface water causing surcharge of the foul system.
- South part of the Humberston and New Waltham Ward - separate systems, surface water causing surcharge of the foul system.
- Scartho area of Grimsby – has been prone to sewer surcharge for the past 30 years due to increased development bringing out over loading of the core sewers. In recognition of the problem a planning embargo was put in place by Grimsby Borough Council until 1996. Attenuation was required by the newly formed North East Lincolnshire Council from 1996 onwards. The Scartho area is also highlighted in the CFMP as being at risk.
- East area of Park Ward – combined system. Some properties were internally flooded on two occasions during the floods of summer 2014.
- The south west part of West Marsh Ward - combined system. Some properties were internally flooded on two occasions during the floods of summer 2014.

The town of Grimsby suffers from a high risk of surface water flooding, due to the reliance on an aging combined sewerage network. Due to the limited capacity within the sewer network, the expansion of the town draining more roads and properties into the existing sewers, the increase in rainfall intensity and frequency due to climate change, the risk of flooding is set to increase significantly over time. Other issues affecting the performance of the sewerage network are groundwater ingress and land drainage/rural catchment runoff. The Humber RBD FRMP reported that Grimsby has experienced widespread flooding incidents on five occasions: June 2016, August 2017, August 2019, November 2019, and August 2020.

The town of Immingham has separate sewerage systems but has areas at high risk of surface water flooding with a number of historical flooding events including 2007 and 2012. Extensive maintenance and repair works were undertaken in the aftermath of these events and the risk was reduced in some locations, but it remains high in a number of locations.

Since the publication of the previous Strategy, there have been incidences of sewer flooding across the borough. In August 2017 there were several properties flooded as a result of prolonged heavy rainfall overwhelming existing sewerage systems and resulting in

surface water flooding. This was discussed in more detail in Section 3.3.2. In the village of Laceby there was also a flooding incident on the 6 September 2022 which heavy rainfall overwhelming the sewerage system resulting in surface water. This was also discussed in more detail in Section 3.3.2.

3.3.5 Coastal flooding

The onset of flooding from the sea can be extremely rapid. Deep, fast-flowing water can create an extreme hazard. The severity of such flooding will depend on a number of factors, often in combination: the height of tides; weather systems (including storm surge); wind and wave conditions and topography. The standard of the sea defences, i.e. condition and height, will also impact if an area is to flood and to what extent. Currently it is a breach of the sea defences which has the possibility to cause the most severe flooding but with the predicted sea level rise over the next 100 years the consequences of defence overtopping will gradually worsen. If no defence improvements are made both of these scenarios become more likely when taking climate change into account.

The most serious tidal surge in recent times was in December 2013, where businesses on the sea front and at Immingham docks were affected by coastal flooding. On this occasion, no residential properties were affected.

Coastal flood risk is represented within the EA's FMfP, shown in Figure 3-4. However, it should be noted that this represents a worst-case scenario as it does not take account of any flood defences along the coast.There is a project underway to update the EAs Coastal Hazard mapping, with new outputs being used when available to better inform understanding of coastal flooding.

The recently updated SFRA (2022) for the borough contains further information on coastal flood risk and provides mapping showing the consequences of breaches in the flood defences. The SFRA is available on the Council website, here[15].

North East Lincolnshire falls within the Flamborough Head to Gibraltar Point Shoreline Management Plan. The management policy for the whole frontage is currently Hold the Line. Most of the borough coastline is within the East Immingham to Cleethorpes policy unit whilst the southern section of the coastline is within the Humberston Fitties policy unit.

The coastline of North East Lincolnshire is split into four regions, with responsibility split between three organisations:

- Protection from the sea along the northern length (Immingham to Grimsby) is by way of a concrete sea wall, maintained by the Environment Agency.
- ABP are responsible for the sea walls around their land at Immingham and Grimsby Docks which is offered by concrete sheet piled walls, concrete

15 https://www.nelincs.gov.uk/planning-and-building-control/planning-policy/the-local-plan/local-plan-background-information/strategic-flood-risk-assessment/

revetment walls topped with rock filled gabion baskets and lock gates to control levels within both the Royal and Fish Docks. Both lock structures are protected by an external flood gate.

- The length from Grimsby Dock to Cleethorpes promenade is a concrete sea wall also maintained by the Environment Agency. This wall was built in the late 1970s to replace the sea wall destroyed by the tidal surges of 1976.
- The North and Central Promenades and Kingsway of Cleethorpes are maintained by NELC by way of a concrete sea wall, with timber groynes controlling the sand levels of the amenity beaches. In 2017, a new rock armour groyne, the Terminal Groyne, was constructed at the north end of the North Promenade to increase sand levels, thereby providing greater protection to the sea wall.
- The section between the Humberston Fitties and the Cleethorpes Leisure Centre is protected by a sea defence embankment which is the responsibility of the Environment Agency.
- To the south of this, Humberston Fitties is protected by a coastal embankment supported by a rock filled gabion toe which forms the front line of the sea defences. This embankment is the responsibility of NELC and lies in front of the strategic Environment Agency flood defence embankment. These two defences work in conjunction with each other. The majority of the chalets on the Fitties lie between the two embankments.

The effects of sea level rise and coastal flooding can also impact on fluvial flooding from watercourses with a tidal outfall, as the occurrence and duration of tide locking will be increased. Watercourses in the borough that might be affected are Buck Beck, New Cut Drain, Old Fleet Drain, Hadbrough Marsh Drain, and Stallingborough North Beck. Potential sea level rise estimates are discussed further in Section 3.3.7.

3.3.6 Recent mitigation works

Recently, the Grimsby Surface Water Flood Alleviation Study has commenced which will develop an Outline Business Case (OBC) to secure Flood Defence Grant-in-Aid (FDGiA) funding for mitigation works. This OBC will make a strategic assessment on surface water flood risks across the Pyewipe catchment.

Also underway, is the Doncaster, Immingham and Grimsby SuDS Retrofit Innovation Funding project which will entail the retrofit of sustainable drainage measures in parts of Grimsby and Immingham. More information about this project can be found on the Environment Agency website, here[16].

In addition to the above scheme, a groundwater project is underway across the Greater Lincolnshire region, with schemes being developed throughout Lincolnshire. In Grimsby, we are looking to create a new wetland to manage groundwater flood risk to properties, as well

16 https://engageenvironmentagency.uk.engagementhq.com/nel014-dig

as creating new habitat, capturing carbon and providing a new park for the community to enjoy. More information on the groundwater project can be found, here[17].

Significant works were undertaken across the borough as a result of historic flooding events, particularly the summer floods of 2007. These works include:

- Waltham - construction of an earth flood defence embankment protecting the properties that flooded in June 2007.
- North Immingham - programme of works to restore the land drainage systems to the appropriate standard, enhanced by overflow swales and channel realignment.
- Habrough - a new surface water drainage system was installed along West End Road along with extensive cleaning and repairs to the existing village surface water drainage systems
- Humberston - maintenance of land drainage and the construction of a flood storage area around Coniston Crescent and replacement of an under capacity surface water public sewer in Humberston Avenue. Replacement of part of the Humberston Fitties flood defences in 2010/2011.
- Installation of a new surface water drainage system and property level resilience measures around Willingham Street in Grimsby.
- Installation of a new surface water drain to protect low-lying property in St. Nicholas Drive, Grimsby.
- Extensive maintenance and drainage improvement works at Saltings Allotments in Grimsby. This was to protect adjacent property against the effects of groundwater flooding.
- Strengthening of the stretch of sea wall between Grimsby and Immingham since publication of the Humber Flood Risk management Strategy 2008.
- Improvements to sea defences around the Grimsby Docks.
- Replacement of groyne at the beach at Cleethorpes

3.3.7 Impacts of climate change

Climate change projections show an increased chance of warmer, wetter winters and hotter, drier summers with a higher likelihood of more frequent and intense rainfall. This is likely to make severe flooding happen more often and impact all sources of flood risk within the borough.

The Climate Change Act 2008 creates a legal requirement for the UK to put in place measures to adapt to climate change and to reduce carbon emissions by at least 80% below 1990 levels by 2050. This was updated in June 2019 under the Climate Change Act 2008 (2050 Target Amendment) Order to a 100% reduction (or net zero) by 2050.

17 https://engageenvironmentagency.uk.engagementhq.com/lin011-groundwater

The full Act is available on the Government website here[18] and the amendment order is available on the Government website here[19].

Since the publication of the previous Strategy, the government published new UK Climate Projections in 2018 (UKCP18). Following this, the EA published updated climate change allowances for peak river flow (in July 2021) and rainfall (May 2022). These allowances have been assessed at a management catchment level, rather than by RBD as previously assessed. North East Lincolnshire falls within the Louth Grimsby and Ancholme Management Catchment. Within this Management Catchment, total potential change anticipated for the '2050s' category is:

- Between -1% and 19% for peak river flow allowances (2040-2069)
- Between 20% and 40% for peak rainfall allowances (2022-2060)

UKCP18 also provide projections of relative mean sea level rise around the UK coast. These are set out by RBD; North East Lincolnshire falls within the Humber RBD.

The cumulative expected rise in mean sea level along the coastline by 2125 is predicted between 1.15m and 1.55m for the Humber RBD. As sea levels rise, it means that coastal flooding will become more frequent as higher water levels and storms will be seen more often.

Climate change will be taken account of in any flood risk management works or resilience projects that are carried out. This Strategy cannot specify which climate change scenarios will be used as different scenarios and time periods will apply to different situations. This also allows for any new predictions to be considered. Further information on applying climate change allowances can be found on the Government website here[20].

3.4 Community questionnaire

A community questionnaire was undertaken across the North East Lincolnshire area, to gather information on flood history, key areas and mechanisms of flooding, and existing community resilience to flood events. 109 responses were received, mostly from the public but also from local businesses and councillors/parish council members.

The geographic distribution of responses by postcode is shown in Figure 3-7.

18 https://www.legislation.gov.uk/ukpga/2008/27/contents

19 https://www.legislation.gov.uk/ukdsi/2019/9780111187654

20 https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

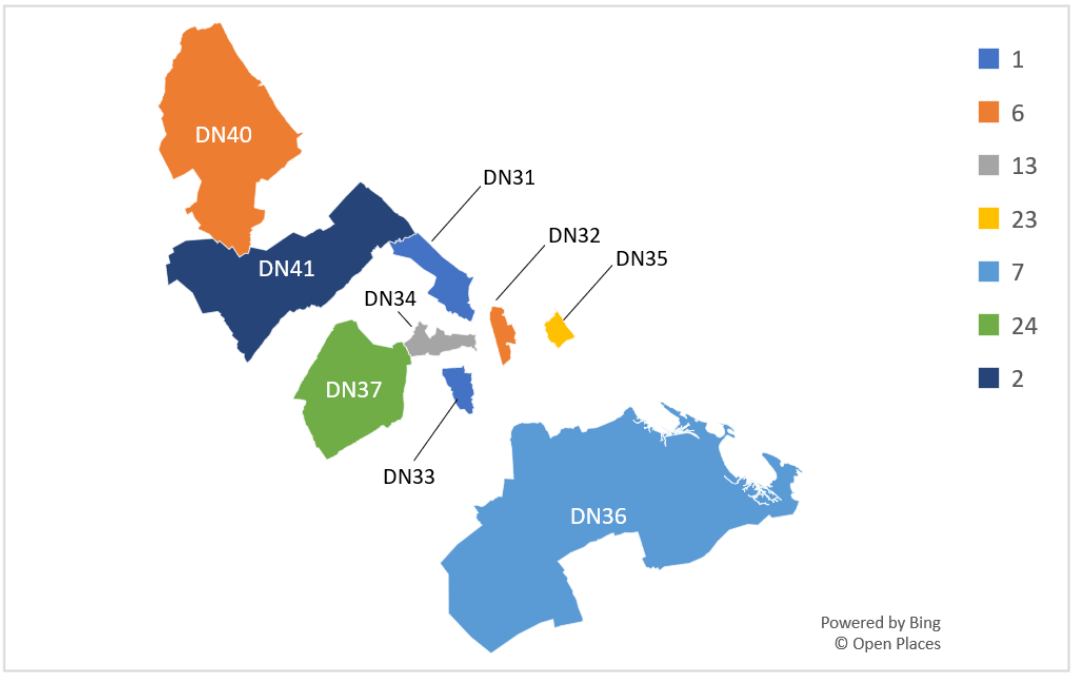


Figure 3-7 Distribution of responses across North East Lincolnshire.

Of the 109 responses, 43 said they had experienced flooding in the vicinity of their property or occupancy. Figure 3-8 shows the receptors reported to be affected by flooding. The main receptors affected were reported to be gardens, driveways, and roads, although 10 respondents reported internal flooding at their property. Figure 3-9 shows where respondents reported that the flooding originated from. The main sources are shown to be overland flows due to blocked drains or capacity exceedance, and surface water flooding as a result of rainfall. There were also reports of fluvial flooding, groundwater flooding, and flooding as a result of foul sewers overflowing.

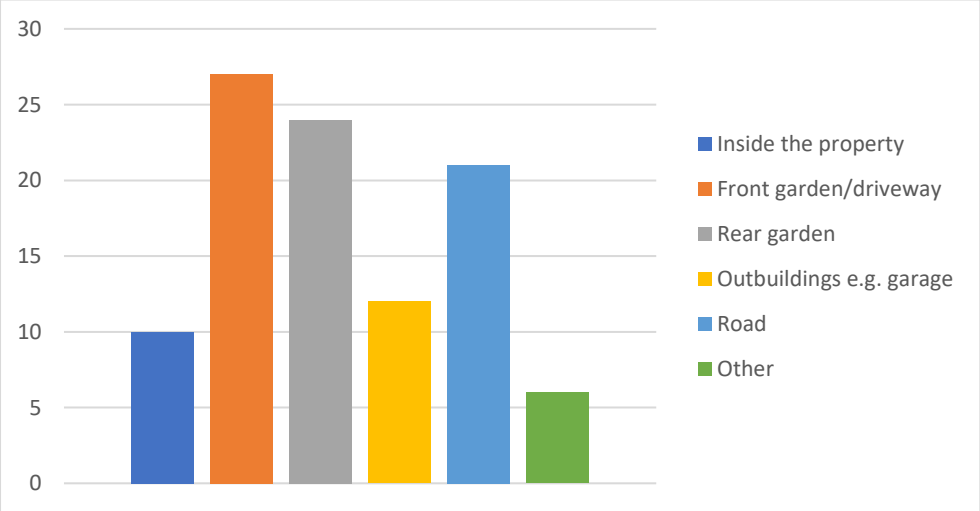


Figure 3-8: Receptors affected by flooding across North East Lincolnshire

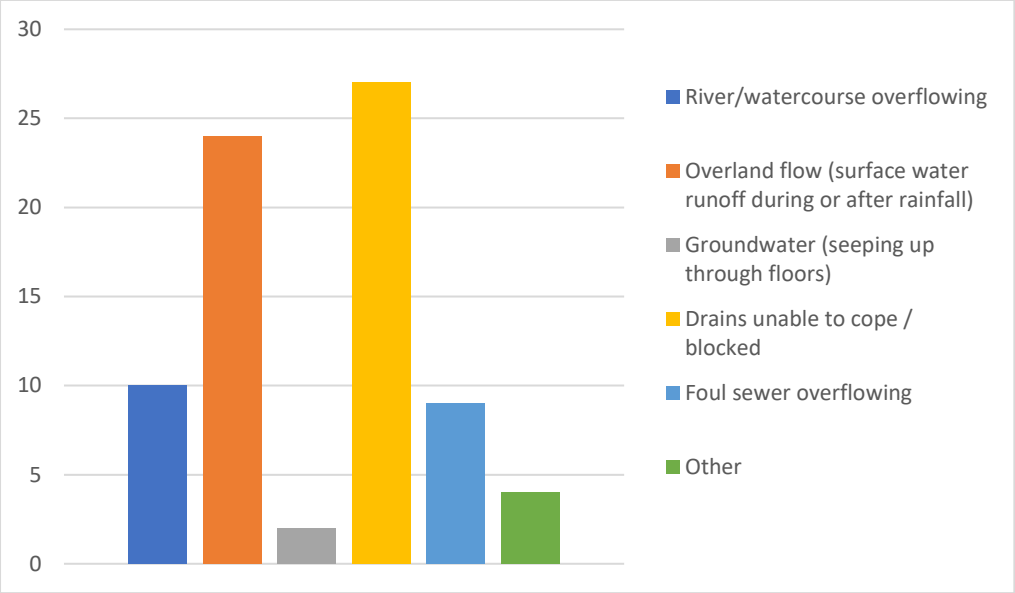


Figure 3-9: Sources of flooding within the vicinity of respondents' properties reported across North East Lincolnshire

Respondents were then asked about flooding issues more widely across North East Lincolnshire. The largest recorded source of flooding was fluvial flooding from rivers/watercourses, closely followed by blocked drains/exceedance of drainage capacity and surface water flooding due to rainfall. The sources of flooding are shown in Figure 3-10

Figure 3-11 shows the recurrence of flooding reported. The recurrence was quite varied, with the most common response 'Rare, but recurrent', however there were nine reports of annual flooding, and eight reports of flooding occurring more frequently than annually. Eight respondents reported an isolated flooding event.

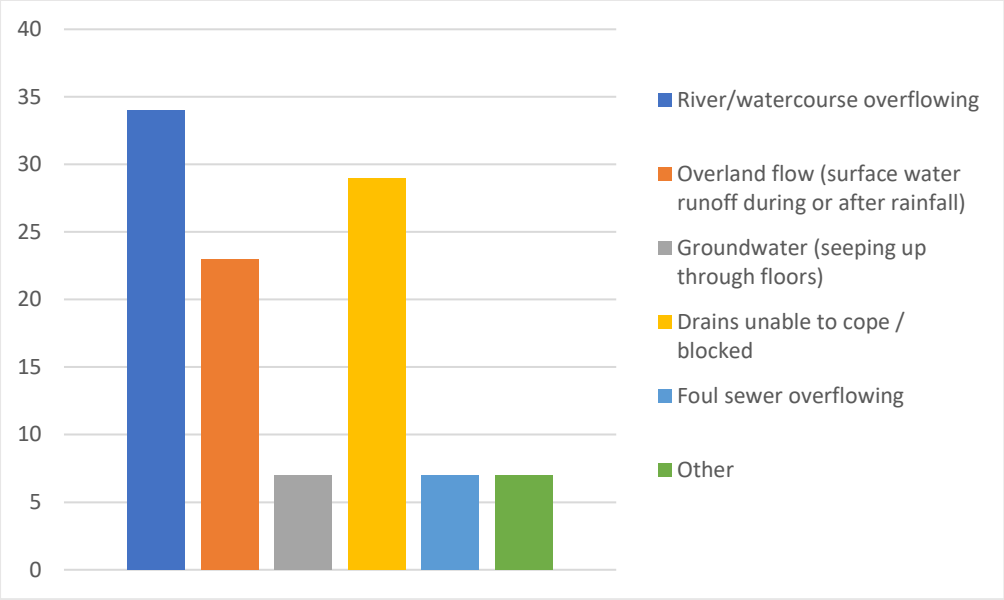


Figure 3-10: Sources of flooding reported across North East Lincolnshire

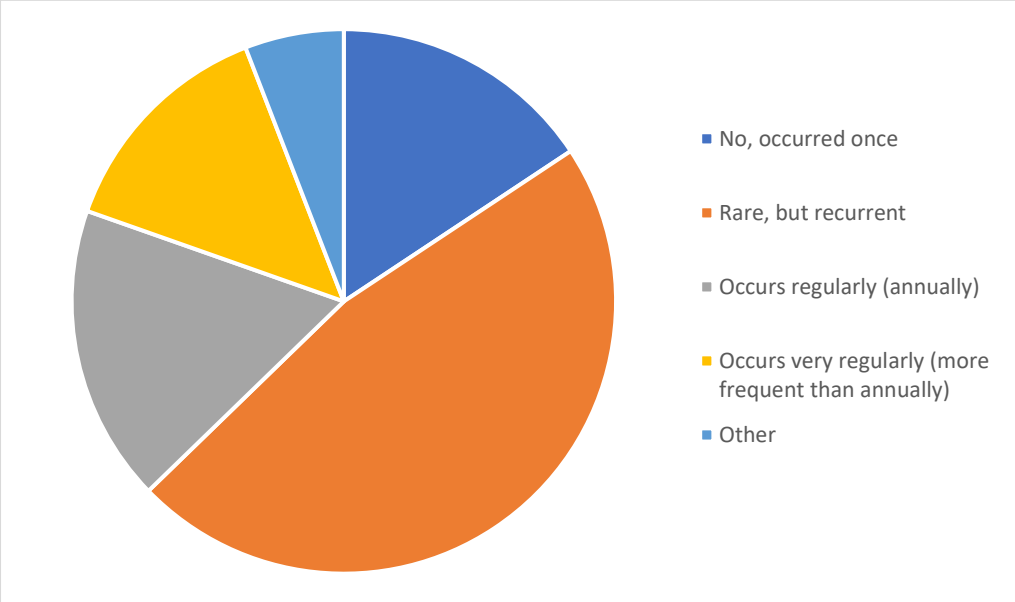


Figure 3-11: Recurrence of flooding reported across North East Lincolnshire

Respondents were asked about any flood plans in the area. Only 18% of respondents were aware of any flood plans in their area. Descriptions showed these plans are very varied and include:

- Phone calls from the councillors warning of severe weather events and advice on evacuation locations,
- Increasing resilience through moving vehicles and other equipment out of the area at flood risk,
- Business Continuity Plans,

- Flood sirens in the event of sea encroachment (these have been removed, homeowners should instead sign up to EA flood warnings. More information on how to do this can be accessed on the EA website here[21].),
- Formal flood defences and property level defences in the form of sandbags,
- Poster on bus shelter,
- Escape plans made by neighbourhood watch.

3.5 Hotspots

In order to understand the key areas of flood risk across North East Lincolnshire, hotspots were identified for both surface water and rivers and sea.

It is important to understand the risk of flooding from all sources using the latest mapping data, alongside the National Receptor Dataset to identify areas at higher risk from flooding.

The outputs from this analysis form the basis of understanding flood risk across North East Lincolnshire and are taken into consideration when planning measures and actions for the LFRMS.

3.5.1 FRISM screening

North East Lincolnshire was divided into grid squares measuring 500m x 500m. This produced a total of 894 tiles.

Locations of residential and non-residential buildings were derived from a combination of Mastermap buildings and the National Receptor Dataset (NRD), which provided information for the following categories of infrastructure across North East Lincolnshire:

- Critical Infrastructure
- Medical
- Pharmacies
- GP Surgeries
- Colleges
- Schools
- Preschools
- Rest Centres
- Leisure & Amusement
- Sub Stations
- Telephone Exchanges
- Shopping Centres
- Campsites

21 https://www.gov.uk/sign-up-for-flood-warnings

Finally, the following layers were used to determine flood risk:

- Flood Map for Planning, Flood Zone 2 (FZ2)
- Flood Map for Planning, Flood Zone 3 (FZ3)
- Risk of Flooding due to Surface Water, 3.3%AEP (30 year) (RoSFW30)
- Risk of Flooding due to Surface Water, 1%AEP (100 year) (RoSWF100)
- Risk of Flooding due to Surface Water, 0.1%AEP (1000 year) (RoSWF1000)

The grid squares, infrastructure data and flood risk mapping were then processed through 'FRISM', an internal JBA GIS package that computes a range of flood risk metrics based on flood and receptor datasets. This generated the infrastructure affected at each flood scenario within each grid square.

The results of this 'FRISM' exercise separated the grid squares across North East Lincolnshire in to high, medium and low categories of flood risk, the thresholds of which were set proportionately across the authority area.

3.5.2 Community flood points

Using the outputs from the 'FRISM' screening, the points of flooding identified from the community questionnaire were plotted using GIS (where information was sufficient to identify the location). This both highlighted additional areas to be included within the hotspots and accorded with the hotspots generated through the screening exercise.

3.5.3 Local flood risk knowledge

Following the information from the FRISM outputs and the flood points identified through the community questionnaire, North East Lincolnshire Council LLFA ratified the results to form hotspot areas applying local knowledge and categorising by flood mechanism. This has produced the finalised hotspots for both surface water and rivers and sea, set out in detail in Section 3.6.

3.6 Results

The results below show groups of grid squares ('hotspots') that have been identified at high risk from flooding through the FRISM screening, community questionnaire and local knowledge.

'High risk' for the purposes of this hotspot exercise is defined as:

- more than 40 properties within the grid square within 1% AEP RoFSW extent
- more than 226 properties within the grid square within 1% AEP Rivers & Sea extent
- These thresholds have been calculated by analysing the highest quartile of properties at risk from each source of flooding across North East Lincolnshire.

3.6.1 Surface water hotspots

The hotspots across North East Lincolnshire identified for surface water flooding are shown in Figure 3-12 below and listed in Table 3-2: Surface water hotspots by ward. Figure 3-12 also includes point data of reported flooding through the community questionnaire. These hotspots also take account of areas identified by NELC to be at high risk of groundwater flooding.

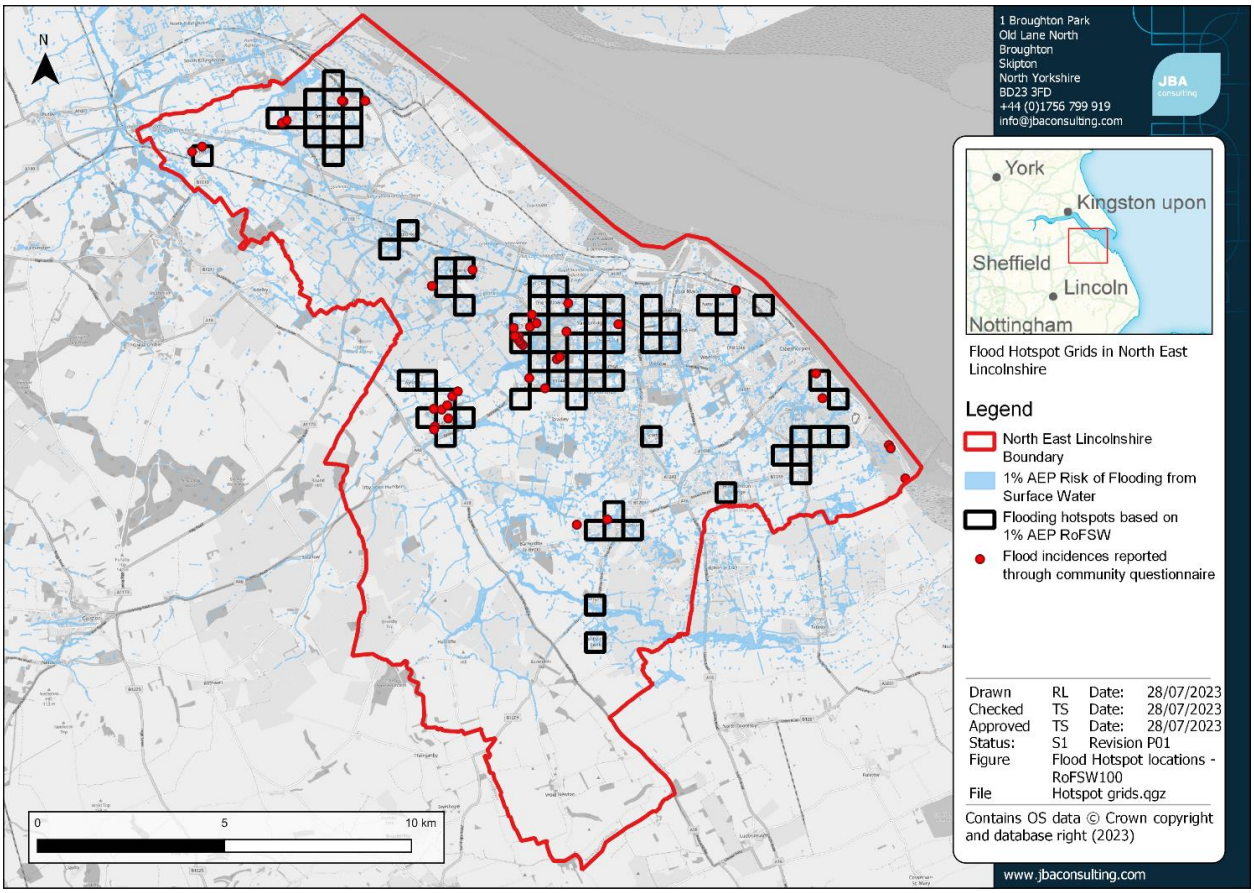


Figure 3-12: Surface water and groundwater hotspots in North East Lincolnshire

Table 3-2: Surface water hotspots by ward

Ward	Hotspot
Immingham Ward	Habrough
Immingham Ward	Immingham West
Immingham Ward	Immingham East
Immingham Ward	Stallingborough
Wolds Ward	Healing
Wolds Ward	Laceby
Freshney Ward	Wybers Wood

Ward	Hotspot
Yarborough Ward, South Ward	Broadway
Park Ward	Grimsby
Sidney Sussex Ward	New Clee
Sidney Sussex Ward	Cleethorpes North
Haverstoe Ward	Cleethorpes South
Humberston and New Waltham Ward	Humberston
Humberston and New Waltham Ward	New Waltham
Waltham Ward	Waltham
Waltham Ward	Brigsley
Waltham Ward	Ashby cum Fenby
Scartho Ward	Scartho

3.6.2 Rivers and sea hotspots

The hotspots across North East Lincolnshire identified for river and sea flooding are shown in Figure 3-13 below and listed inTable 3-3: Rivers and sea hotspots. Figure 3-13 also includes point data of reported flooding through the community questionnaire.

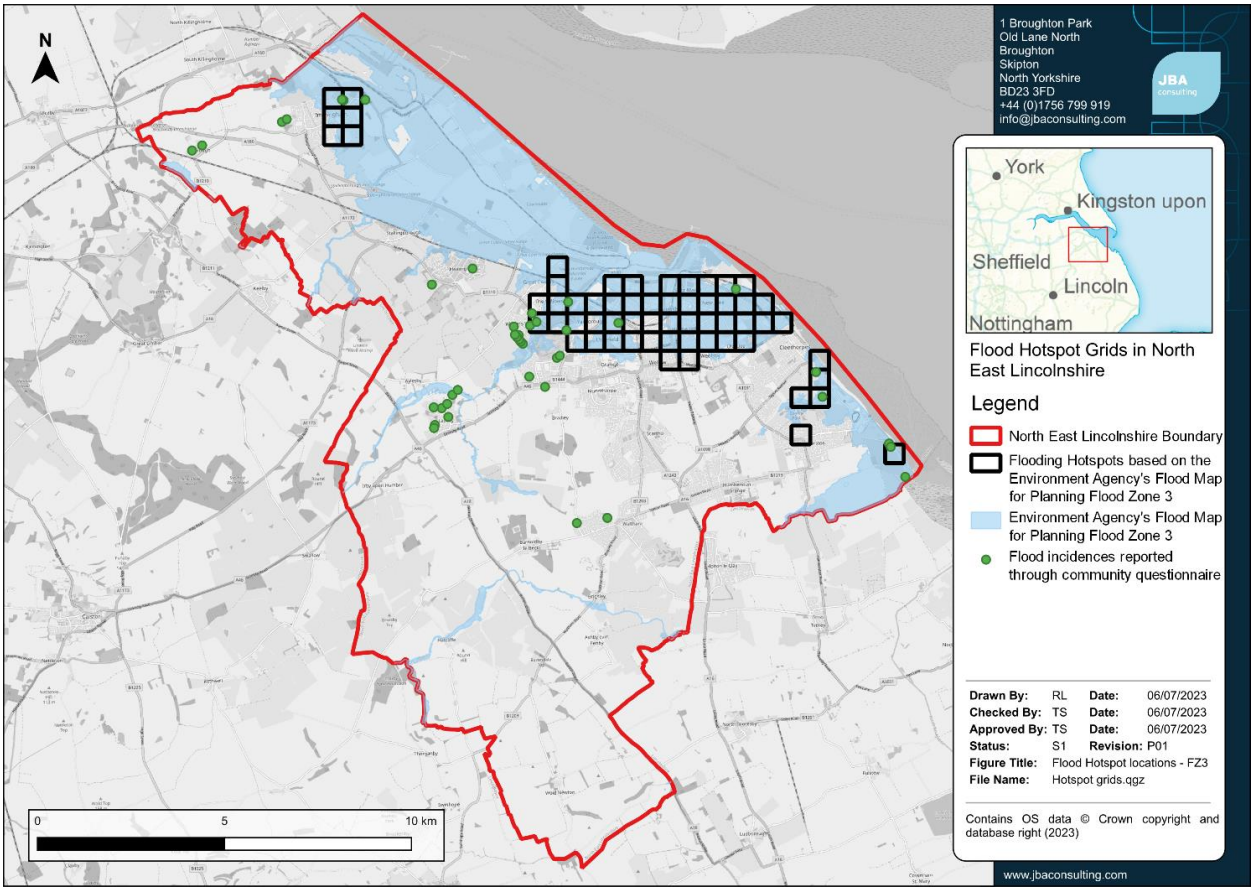


Figure 3-13: Rivers and sea hotspots in North East Lincolnshire.

Table 3-3: Rivers and sea hotspots

Hotspot
Immingham
Cleethorpes and Grimsby
Cleethorpes Country Park
Humberston Fitties

3.6.3 Hotspots within the Local Flood Risk Management Strategy

These hotspots provide an overview of the key areas of flooding across North East Lincolnshire and an understanding of the distribution of flood risk issues. However, there will be other areas of flood risk management issues and mitigations which are not captured

through this strategic level analysis. North East Lincolnshire Council LLFA continue to use a dynamic approach across the borough to respond to and prevent flooding events, and flood risk activities are not limited to these hotspot areas.

Mitigation of flood risk in the areas identified as the 18 surface water hotspots and 4 rivers and sea hotspots will be captured through the objectives and measures of the Strategy.

4 Objectives and measures for managing flood risk

4.1 Overview

Objectives set within the LFRMS must align with the national FCERM strategy. The Council should work with others to set objectives that address multiple issues within communities. Objectives set should be SMART (Specific, Measurable, Achievable, Relevant and Time-Bound). The Objectives within this Strategy are set out in Section 4.3. Alongside each objective, measures are set out to define how these objectives will be met. The measures are strategic steps to be taken to address each objective and are detailed in Appendix A. Actions to help achieve the objectives and to address specific flood risk management issues in the identified hotspots and across the borough are detailed in Appendix B, the Action Plan.

4.2 Methodology

The following section sets out the steps undertaken to develop the objectives and SMART measures for this LFRMS. Progress on objectives outlined in the previous 2015 Strategy was considered, alongside aligning objectives to updated guidance (including but not limited to the national FCERM Strategy), consulting stakeholders to encourage collaborative working and wider benefits, and targeting the areas at highest risk from flooding across the borough. The process outlining how these objectives, measures and action plan were derived through the LFRMS is outlined below.

Figure 4-1Process of LFRMS objective development

4.2.1 Literature review

The first stage in developing the objectives and measures was to undertake a literature review of relevant documentation, including the original LFRMS and the updated national FCERM Strategy. For each document, key outcomes and objectives were pulled out which were then used to inform the development of objectives within this Strategy.

The objectives in the original LFRMS were also reviewed to assessed to what extent they had been met, whether they should be carried forward into the updated Strategy, or whether they needed revising in light of new information or policy updates.

4.2.2 Community Questionnaire

A community questionnaire was undertaken across North East Lincolnshire to identify key areas and mechanisms of flooding, gather information on historic flood events and existing community flood resilience. A total of 109 responses were received.

4.2.3 Hotspot analysis

The hotspot analysis (detailed further in Sections 3.5 and 3.6 above) identified the areas at the most significant risk of fluvial and surface water flooding. This information was then used to inform the objective development to ensure that the objectives are targeting the areas at most significant risk. Potential flood risk management interventions specific to the hotspots identified in hotpot analysis are outlined in Appendix B alongside potential funding options and timescales.

4.2.4 Stakeholder workshop

Initial draft objectives and measures were discussed within a stakeholder workshop with representatives present from the following organisations:

- North East Lincolnshire Council Lead Local Flood Authority
- North East Lincolnshire Council Cabinet Portfolio Holder
- North East Lindsey Internal Drainage Board
- Environment Agency
- Anglian Water
- Lincolnshire Wildlife Trust

This initiated discussions around the draft objectives and measures and allowed for feedback and opinions from different organisations. This collaborative working means that the objectives can address the priorities of different organisations and provide wider benefits.

4.3 Objectives

Climate Resilience Places

Working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change.

1. We will increase our skills, capabilities and understanding of local flood risk through investigations and continually improving data.
2. We will work with development planning to seek opportunities to improve resilience through new and existing development, to encourage environmental net gain.
3. We will strive for sustainability in all aspects of flood risk management in order to meet the Council's goals of cutting carbon emissions to net zero by 2040.

Today's growth and infrastructure resilient in tomorrow's climate

Making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as infrastructure resilient to flooding and coastal change.

4. We will seek opportunities for innovation in flood risk management duties and schemes to adapt to a changing climate.
5. Plan and adapt to a changing climate through developing longer term adaptive approaches.

A nation ready to respond and adapt to flooding and coastal change

Ensuring local people understand their risk to flooding and coastal change, and know their responsibilities and how to take action.

6. We will build upon and improve existing resilience at a community level through increasing awareness and understanding of flood risk and working together to embed resilience in buildings and planning.
7. We will continue to review preparedness in responding to flood events and update accordingly through working with the Local Resilience Forum and communities so that communities and RMAs alike can better prepare and respond to flooding and coastal change.

5 Monitoring, review, and implementation

This section outlines the processes that NELC will put in place to implement, monitor, and review this Strategy. The Strategy has been developed to support understanding and management of local flood risk in the borough over the next five to ten years and therefore will require periodic review to so that it remains current and in line with local and national policy, changes in climate change science and local flood risk.

5.1 Implementation and monitoring

This Strategy sets out the roles, responsibilities, objectives, and priorities of RMAs across North East Lincolnshire. In partnership with other RMAs and key stakeholders, NELC will use this Strategy to guide their approach to local flooding issues across the borough.

The overarching objective of the Strategy is to reduce local flood risk to residents, businesses, key infrastructure, and communities by increasing resilience in the communities. This will be achieved through the implementation of the Flood Risk Action Plan (see Appendix B). The action plan focuses on the short to medium-term measures identified rather than the longer term strategic measures. The successful implementation of the Strategy will be influenced by external factors such as funding and resource availability. Potential options for funding opportunities are discussed further in Section 5.2.

In some areas, NELC will look to carry out improvements to flood defence infrastructure to address known local flooding problems from surface water, ordinary watercourses and groundwater. In other areas, the approach may be through the use of early flood warnings and local resilience measures. In these areas, NELC will act as enablers to help communities take action to help themselves and carry out their own riparian responsibilities.

The Council will also seek to reduce flood risk through other actions such as planning and development control, working with landowners and land managers, progressing investment and increasing resilience. They will seek to retain and develop the expertise already present in the Council as well as increasing capacity where required. Through collaborative working and addressing issues at the appropriate authority level, they will make the best use of the resources and funding available.

All applicable RMAs are committed to delivering the objectives of the Flood Risk Action Plan to reduce flood risk to the communities across the borough. NELC, as the LLFA, will continue to take responsibility for implementing the Strategy and will lead on developing and continuing existing relationships with partners and stakeholders.

New information, guidance and the occurrence of future flood events will mean the Strategy may require updating from time to time. Regular reviews of progress against the Flood Risk Action Plan will be conducted so that the Council can monitor the latest flood risk situation and alter actions as and when required.

5.2 Funding opportunities

Funding opportunities for FCERM projects will depend on the type of project and the potential benefits it will offer. The sections below detail some of the potential options for funding FCERM projects but are not exhaustive.

Additionally, the Council will continually seek new sources of funding to support flood risk management objectives.

5.2.1 Grant-in-Aid (GiA)

In March 2020, the Government announced that the six-year investment programme beginning in 2021/22 would provide a capital budget of £5.2 billion for flood defences.

The EA gets GiA funding from the Government. Some of this is spent directly on FCERM activities but RMAs can also apply to the EA for GiA funding for local projects. Funding is assessed based on the public benefits of the project. Often projects will qualify for part-funding which can then be topped up through partnership funding from other, local sources.

5.2.2 Local Levy - Regional Flood and Coastal Committees (RFCC)

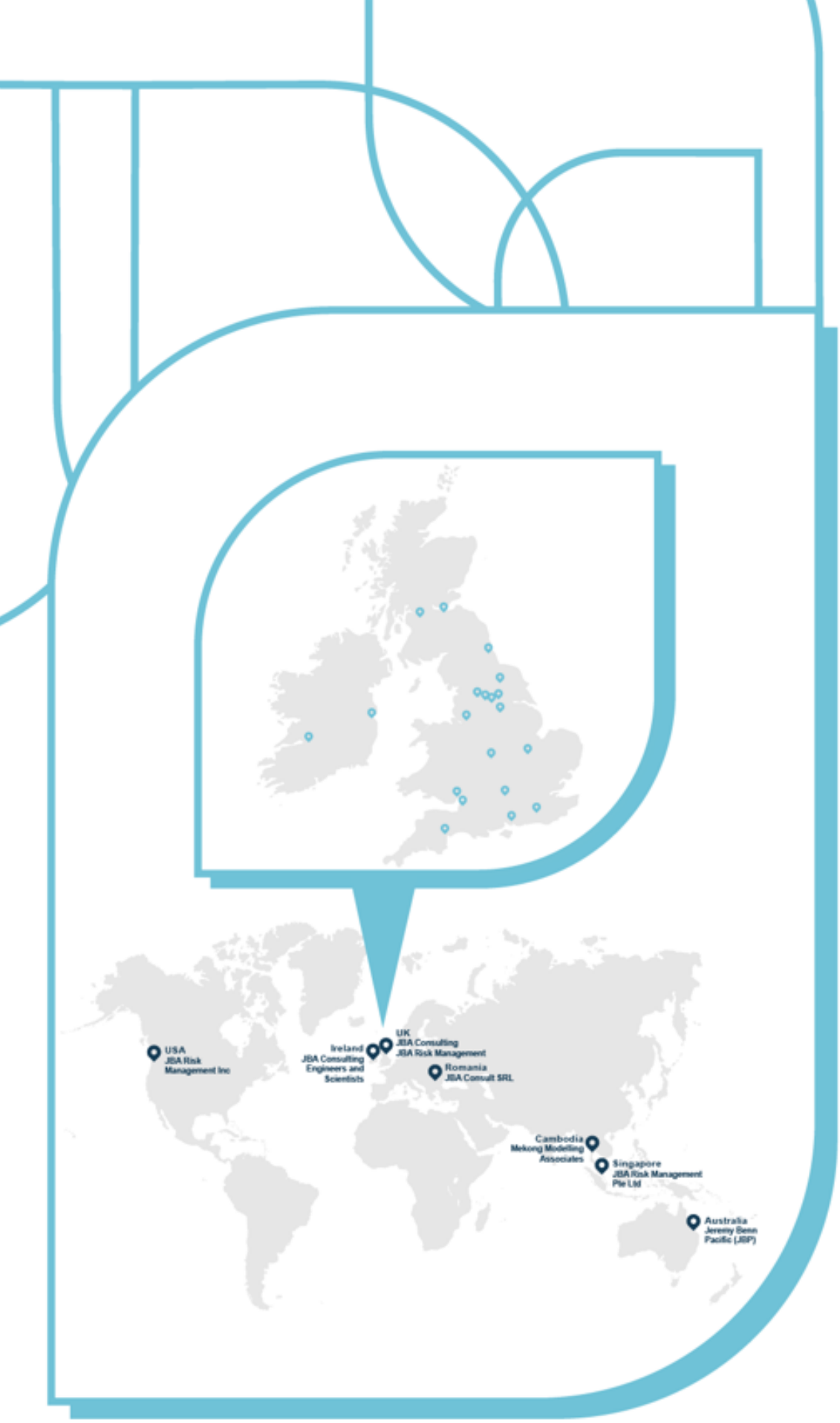
The local levy can fund both traditional and natural flood risk management projects, which are not funded by GiA. Funds are raised by a levy on local authorities and projects are selected by committee, appointed from the LLFA and EA. North East Lincolnshire lies within the Anglian Northern RFCC.

5.2.3 Community Infrastructure Levy

The Community Infrastructure Levy is a charge which can be levied by local authorities on the new development in their area and then the funding raised can be used for projects relating to a range of infrastructure, including flood defences.

5.3 Review

The Local Strategy will be reviewed and updated as and when required, specifically when there is a material change to legislation, the National Strategy or the approach to flood risk in the district which may not be compatible to the Local Strategy. The Flood Risk Action Plan will be reviewed annually to check that the actions continue to be appropriate and achievable. It should be noted that this Strategy represents the current situation (at the time of publishing) based on the current evidence base.



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