

The Suffolk logo consists of the word "Suffolk" in a bold, dark blue sans-serif font. To the right of the text is a dark blue curved shape that resembles a stylized 'S' or a wave, partially overlapping the text.

Suffolk

Flood Risk
Management Partnership

SUFFOLK LOCAL
FLOOD RISK
MANAGEMENT STRATEGY

FEBRUARY 2023

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Who to contact about flooding



In an emergency especially if there is danger to life as a result of flooding you should not hesitate to ring **999**.



Environment Agency Floodline: 0345 988 1188 – for flood information and warnings.



For general enquiries about river or sea flooding: contact the Environment Agency on **03708 506 506**.



To report flooding from sewers or water pipes: contact Anglian Water on **03457 145 145** (sewerage) or **0800 771 881** (water).



Flooding on the highway: Any incidents on trunk roads (A11, A12 south of Ipswich, A14) should be directed to Information Line: **0300 123 5000**



For any other roads in Suffolk ring **0345 606 6171**



Non-urgent reports of minor flooding or blocked drains or gullies can be completed online. See **www.suffolk.gov.uk/flooding** for details.



For all other flooding and related issues: email **floods@suffolk.gov.uk**

1 Introduction

1.1 Background

The extreme floods of 2007 led to a national review (Pitt Review) to consider how the UK deals with flooding and adapts to the likelihood of more frequent and intense periods of heavy rainfall. The Review stressed the importance of improving legislation for the effective management of flooding, particularly from surface water. Many of the recommendations from the Pitt Review have been implemented through the **Flood and Water Management Act 2010** (the Act).

Through the Act, County and Unitary Authorities have been given greater responsibility for surface water management issues, under the role of Lead Local Flood Authority (LLFA). Suffolk County Council is the LLFA for Suffolk. The Environment Agency takes a national strategic overview role for flood risk management and produces a National Strategy for Flood and Coastal Erosion Risk Management (FCERM) (National Strategy).

1.2 In Suffolk

Suffolk County Council (SCC) is the Lead Local Flood Authority for Suffolk. As the LLFA, SCC is responsible for developing, maintaining, and applying a strategy for local flood risk management.

Local flood risk means flood risk from:

- Surface runoff (pluvial).
- Groundwater.
- Ordinary watercourses (fluvial).

Flooding from these 3 sources generally creates more localised flooding than that from main rivers and the sea. The management of these forms of flooding often relies on several systems, often managed by different authorities, working effectively together, i.e. sewers, drainage networks, ordinary watercourses.

There are many authorities involved in the management of local flooding in Suffolk, including SCC (as LLFA, Highway Authority and Emergency Planning), the Environment Agency, District and Borough Councils, Internal Drainage Boards and Sewerage and Water Companies. These are called Risk Management Authorities (RMA). Private owners of watercourses (riparian owners) also have responsibilities to ensure the free flow of water, as do the owners of private properties to ensure they are resilient to flooding.

The Flood and Water Management Act 2010 requires the RMA's to:

- Co-operate with each other.
- Act in a manner that is consistent with the National Flood and Coastal Erosion Risk Management Strategy for England and the local flood risk management strategies developed by Lead Local Flood Authorities.
- Exchange information.

They have flexibility to form partnerships and to act on behalf of one another.

SCC as LLFA is required to produce a Local Flood Risk Management Strategy (the Local Strategy) that sets out how local flood risk will be managed in Suffolk by the authorities involved. The Local Strategy is to be reviewed and updated and adapted to changes in policy, guidance, growth, climatic and environmental changes.

The Flood and Water Management Act 2010 requires the LLFA to:

- **prepare and maintain a strategy for local flood risk management** in their areas, coordinating views and activity with other local bodies and communities through public consultation and scrutiny, and delivery planning.
- **carry out works to manage local flood risks in their areas** (the power for works in relation to minor watercourses sits with either the district council or unitary authorities outside of IDB areas).
- **maintain a register of assets** – these are structures or features that are considered have a significant effect on flooding in their area.
- **investigate significant local flooding incidents** and publish the results of such investigations.
- **undertake a statutory consultee role on surface water drainage to local planning authorities.**
- **co-operate with other Risk Management Authorities.**
- **have powers under the Land Drainage Act 1991 to regulate ordinary watercourses** – issuing consents for watercourse works and enforcing obligations to maintain watercourse flow.

1.3 Purpose of the Local Strategy

This Local Strategy has been prepared as part of SCC's role as LLFA and is the result of a review of the first strategy, published in February 2013, (updated 2016) taking into account current national, regional and local policies, best practice, updated guidance and current priorities. It remains a 'live' document that sets out to manage local flood risk. It provides a strategic framework within which the RMA's in Suffolk can work in effective and co-ordinated ways to manage risk, improve resilience, and limit impacts caused by surface water runoff, groundwater and from watercourses.

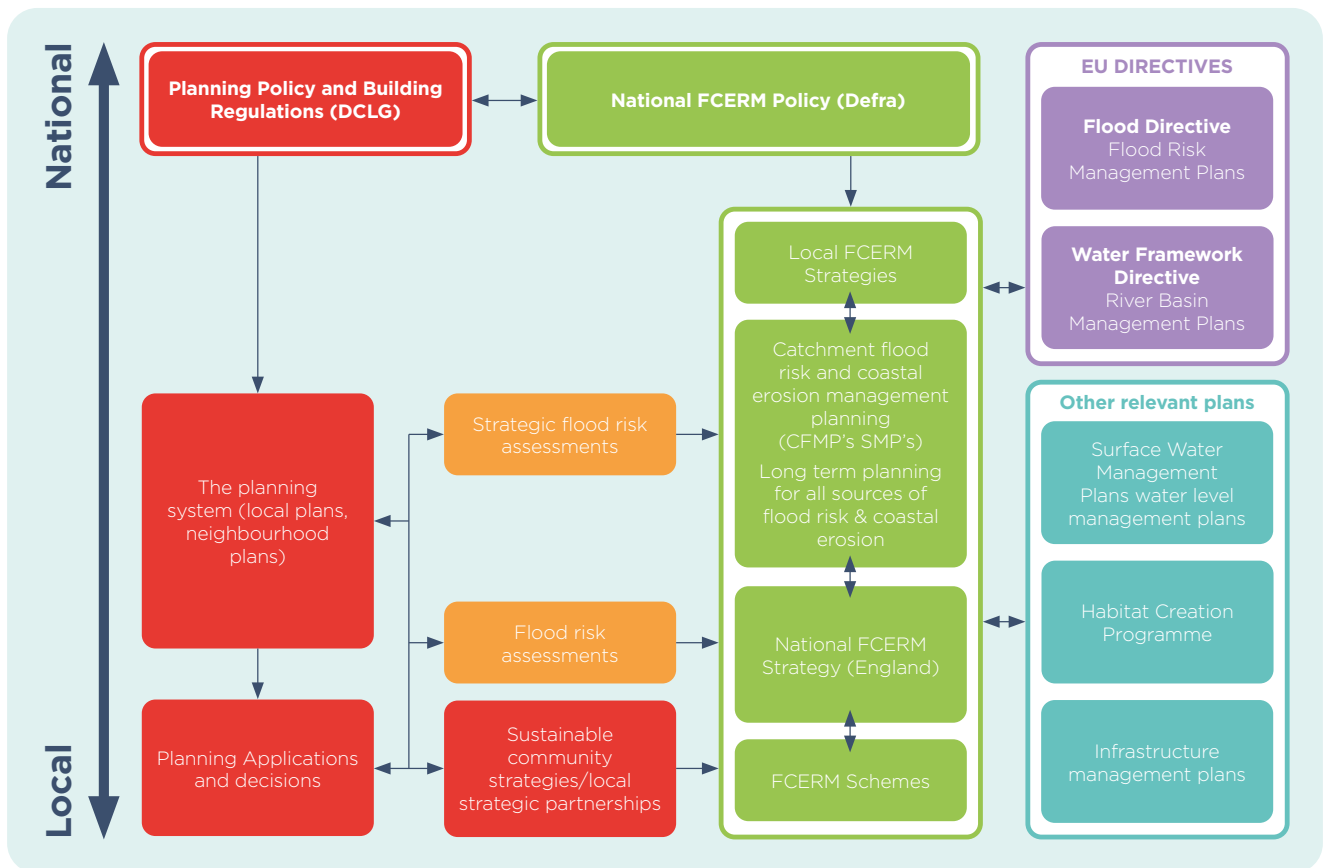
The needs of communities, the economy and the environment are key factors in delivering sustainable growth in Suffolk. The development and delivery of the Suffolk Flood Risk Management Strategy (SFRMS) aims to support this.



1.4 Context of the Local Strategy

The Local Strategy is one of several interrelated documents, strategies, plans and policies that influence how flood risk is managed in Suffolk, from national policy and guidance, through local strategies, plans and guidance for delivery of interventions and initiatives.

The interrelationship and hierarchy of the various documents of policy and guidance that go together to deliver flood risk management measures is shown below.



This Local Strategy sets out broad objectives for local flood risk management in Suffolk, from which a plan of actions to identify and deliver measures to address and manage local flood risk can be developed.

1.5 Relationship to the National Strategy

The National Strategy (National Flood and Coastal Erosion Risk Management Strategy for England – FCERM) has been produced by the EA and was adopted and published on 25th September 2020. This replaces the 2011 National Strategy.

The vision for the FCERM Strategy is **‘a nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100’.**

It has three ambitions:

- Climate resilient places.
- Today’s growth and infrastructure to be resilient in tomorrow’s climate.
- A nation ready to respond and adapt to flooding and coastal change.

The FCERM Strategy describes what needs to be done by all risk management authorities (for RMA’s see 1.2) involved in flood and coastal erosion risk management. Full details of these are given at **Annex 1**.

2 Flood Risk Management

Flooding is a natural process where water inundates normally dry areas. The built environment can exacerbate its likelihood and or the magnitude. Flooding has the potential to cause risk to life, produce long term adverse effects to community wellbeing, damage property and harm the environment.

The consequences of flooding can include:

- Damage to residential and commercial property, agricultural land, infrastructure and services.
- Risk to life and impacts on health (physical and mental) and wellbeing.
- Adverse impacts on community and business confidence and sense of security, including access to flood insurance.
- Damage to the environment, pollution and impacts on wildlife.

There can be beneficial effects from flooding. It can provide nutrients for farmland and provide habitats for fauna and flora. Storing flood water in low risk areas can prevent flooding in other areas and improve water quality too.

2.1 What is Flood Risk?

Flood risk is a combination of the likelihood of a flood happening and the impact of the damage it causes. It is dependent on there being a source of flooding (river, sea etc), a route for the flood water to take (pathway) and something that is affected by flooding (receptor), such as a housing estate.

RISK = likelihood x impact

The likelihood of flooding happening can often be confusing. Using terms such as 1 in 100 years return period can mislead people into thinking

that it will only occur every 100 years. Return periods are an average of how often a flood of that size will occur. Its clearer to state the chance of it occurring, e.g. a 1 in 100-year flood, can also be described as having a 1% chance of occurring in any one year.

The Environment Agency collate local information in order to assess flood risk from different sources at a national level, this results in a series of publicly available maps that describe the current predicted flood risk for any given location in Suffolk (<https://flood-warning-information.service.gov.uk/long-term-flood-risk>) See 2.2.

This information is used alongside locally collected evidence to assess options for measures to reduce flood risk and develop bids for funding.



2.2 Flood Risk Mapping

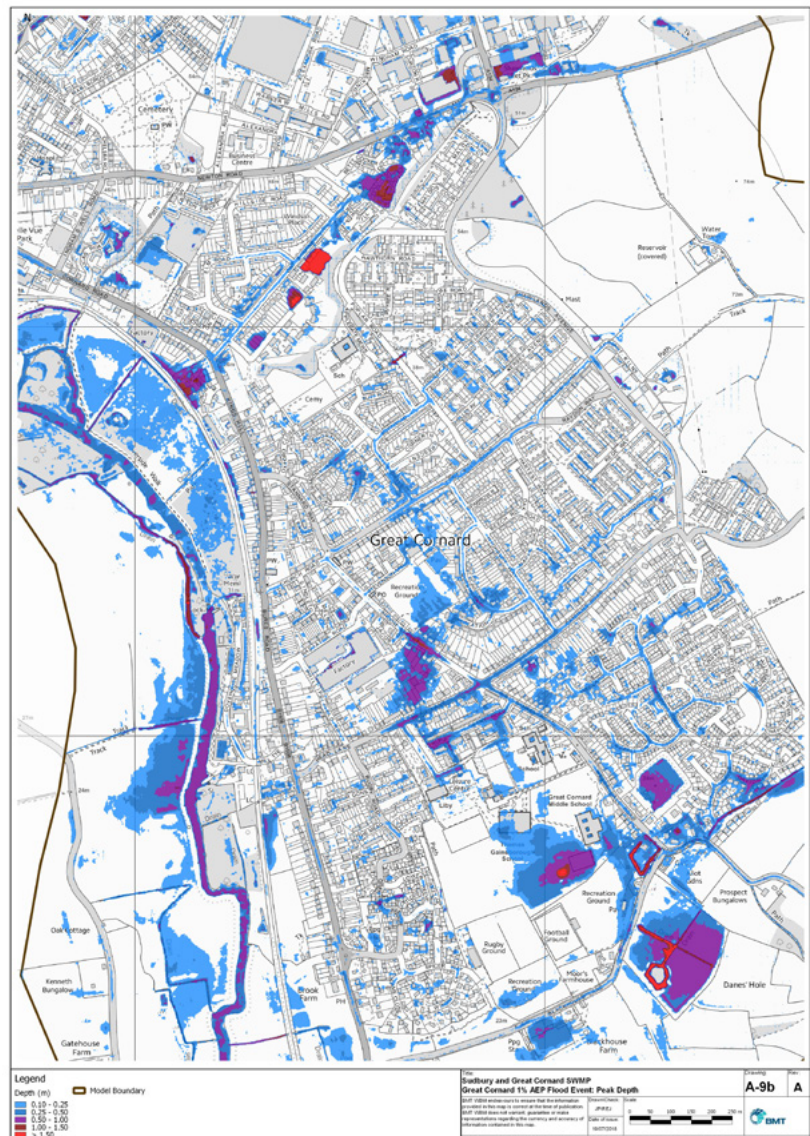
Flood risk mapping is created by building a digital model which predicts where water is most likely to flow or collect. Three main types of flood risk models;

1. River and Sea – how water will flow through river channels and when water will flow out of channel during a storm.
2. Ground water – how water moves through the ground based on the geology.
3. Surface water – rain is dropped on a catchment area which is influenced by topography and drainage system to understand where flood water will pool.

The Environment Agency publish and maintain flood risk mapping online at gov.uk website. These maps provide a high-level overview of flood risk using a nationally consistent approach. The mapping is a useful resource to highlight general areas which are likely to be at risk from flooding.

In priority flood risk areas (see 3.3), it may be necessary to produce mapping which includes much finer detail. In these cases, Suffolk County Council as the LLFA will undertake detailed local modelling to increase the accuracy of local surface water flood risk mapping. This will inform capital schemes, flood investigations, planning policy or other similar practices which require surface water flood risk information. The additional modelling will be submitted to the Environment Agency for inclusion in the nationally produced flood risk mapping.

The LLFA will respond to queries or concerns it receives over local surface water flood risk modelling and mapping in Suffolk as appropriate.



2.3 Delivery of Flood Risk Management

Effective flood risk management requires an understanding of the nature of the risk, where it is, its magnitude, what its impacts are, an assessment of actions and measures available to manage the risk, and building and maintaining those measures.

The National Strategy's long term ambitions to 2050, are to develop climate resilient places, ensure growth and infrastructure remains resilient in a changing climate, and that we are able to respond and adapt to flooding and coastal change; there is an **emphasis on resilience over protection**.

Protection is implementing measures or actions to reduce the probability of flood water entering a property

Resilience is the capacity of people and places to plan for, better protect, respond to, and recover from flooding - enabling lives to be lived and planned comfortably alongside climate impacts of the future

The National Strategy's key messages are:

- Improve resilience to flooding.
- Plan and adapt to changes in climate and risk.
- Encourage nature-based solutions and environmental net gain.
- Enable growth through flood management investment.
- Mainstream property resilience measures and 'build back better'.
- Support and inform people, communities, and business to understand and take action to reduce impact and recover quicker.

Annex 1 lists the actions which the National Strategy identifies as necessary for the risk management authorities to take to deliver on the National Strategy. These messages need to be reflected in the objectives and actions that the Suffolk Local Strategy seeks to deliver with partner organisations, risk management authorities and communities in Suffolk.



Property survey for flood resilience measures.

2.4 Climate Change

There is clear evidence that climate change is happening. Increases in winter rainfall, drier summers with periods of more intense rainfall, rising sea levels and extreme weather events affect flood risk, the effects of which are likely to result in increased frequency and magnitude of flooding in Suffolk.

Local flood risk is likely to be affected by climate change from

- Increased winter rainfall volumes and more intense summer rainstorms, creating flash flooding from surface water and watercourses.
- Increased rainfall leading to higher groundwater levels which can cause groundwater flooding.
- Rising sea levels affecting the ability of coastal watercourses and drainage networks to effectively discharge into the sea.
- Weather systems and extreme weather conditions increasing tide heights and storm surge magnitudes.

These effects need to be given careful consideration in decision making and in taking actions associated with the delivery of flood risk management schemes. We need to be agile to the latest climate science, growth projections, investment opportunities and other changes to our local environment. This will enable 'adaptive pathways' to be created which will help local places to better plan for future flooding and coastal change and adapt to future climate hazards.

2.5 Seeking Wider Benefits

There are many potential benefits to be achieved through the delivery of effective flood risk management works. Early identification of solutions that could provide environmental, social, health, or economic benefit, additional to the flood risk benefit, is to be encouraged. The multi benefit approach can also provide the opportunity to attract additional funding from other sources and support for measures, together with their ongoing management and maintenance.



Natural Flood Management – leaky dam.

3 Flood Risk in Suffolk

3.1 Summary

The nature of flood risk in Suffolk is extremely varied and spread across the county, this is because Suffolk has an extensive coastline with estuaries, a network of main rivers, ordinary watercourses and low-lying land, which is combined with underground drainage systems mainly in urban areas. The main sources of flood risk in Suffolk are from;

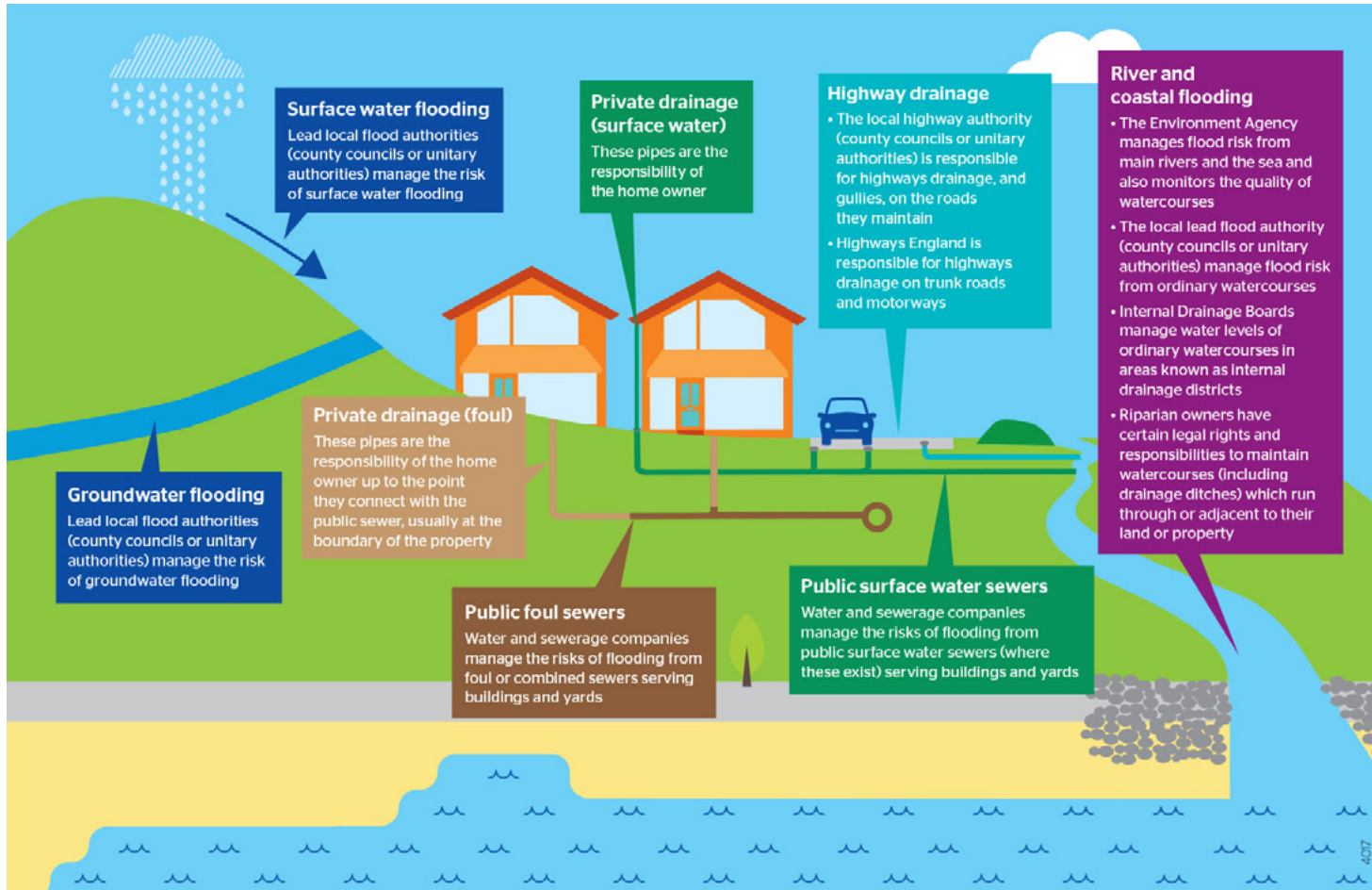
- Surface water (pluvial).
- Main / ordinary watercourse (fluvial).
- Coastal process and Tidal Surge.
- Groundwater.
- Sewer.
- Highway water.



The organisations who deal with the different types of flooding

* Coastal flood risk in Lowestoft is the responsibility of East Suffolk Council, this is an exception to the normal rule.

Diagram showing the different roles and responsibilities for various types of flooding (Courtesy of Southern Water)



3.2 Local Flood Risk Assessment

Preliminary Flood Risk Assessments (PFRA) are required by the Flood Risk Regulations 2009. These require the LLFA to undertake a PFRA every six years. Suffolk prepared its first PFRA in 2011 and carried out a subsequent review of it in 2017.

A **PFRA** is an assessment of:

- Floods that have taken place in the past.
- Floods that could take place in the future.

They consider flooding from surface water runoff, groundwater and ordinary watercourses and are used to identify areas that are at significant risk flooding, called Flood Risk Areas. The criteria set by government for 'significant risk' is based on the concentration or properties at risk of surface water flooding in an area.

The LLFA has identified areas at significant risk in Suffolk through the **Preliminary Flood Risk Assessment** involving a county wide screening using Environment Agency datasets combined with locally recorded incident and risk data. Correlation of the data gives confidence of the results and gives a strategic steer on where resources should be directed to best affect. The geographical risk areas are shown in Fig 1.

Data available in August 2020 indicates that in Suffolk there are:

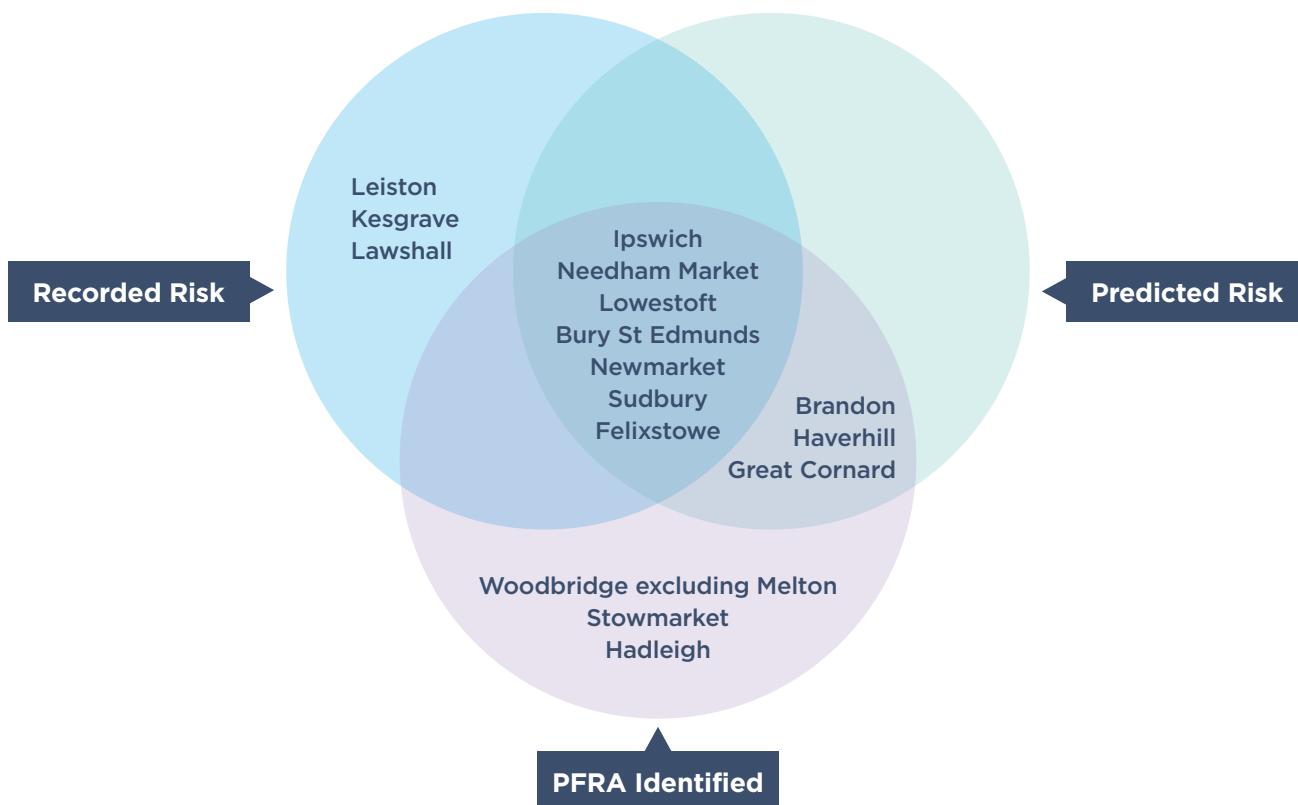
- Approximately 5,200 properties at risk of flooding from surface water.
- Approximately 7,100 properties at risk of flooding from river and coastal flooding.

The trend in the total number of reports of flooding received by the LLFA is upward, and so is the % which relate to property.

In the 3-year period 2014 to 2017 there were 4,186 reports of flooding received, of which 214 related to properties: 5% of the total, and

In the 3-year period 2017 to 2020 there were 6,072 reports of flooding received., of which 491 related to properties: 8% of the total

There appears to be a trend upwards. Precise cause and affect have not currently been established and it is something that should be addressed through this Strategy; to understand flood risk, impacts of changes in climate, effectiveness of intervention measures on receptors and their resilience.



3.3 Priority Flood Risk Management Areas

Following the production of the PFRA and countywide screening work which identified risk areas, the LLFA has been able to identify priority risk areas. We have identified 15 priority locations for further investigation. This list has been compiled by cross referencing both risk to residential properties across multiple predicted storm scenarios, as well as flood risk incident information reported by members of the public, allowing us to more confidently identify areas most heavily impacted by flooding. The results are shown in Table 1.

A Surface Water Management Plan is a plan which outlines the preferred surface water management strategy in a given area. A study is undertaken with key local partners responsible for surface water management and drainage to understand causes and effects and to develop a plan for long term management of surface water in the area.

Working from our prioritised list, the LLFA is carrying out flood investigations and developing Surface Water Management Plans (SWMPs) or similar surface water flood risk studies, to understand the mechanisms, nature, and degree of flooding to evaluate and develop mitigation and resilience measures and schemes. By carrying out studies on the prioritised areas we will be able to target the residential properties in Suffolk which are at greatest need of investment, and subsequently reduce or mitigate their surface water flood risk.

Currently, three SWMPs covering Leiston, Sudbury & Great Cornard, and Newmarket have been completed and are being assessed for scheme viability.

New surface water flood risk study areas to be investigated have been selected based on a combination of existing risk and future development growth areas. They include Beccles, Bury St Edmunds, Bungay, Haverhill, Ipswich,

Table 1: Priority surface water flood risk areas in Suffolk based on predicted and realised risk to residential properties

Priority	Location
1	Ipswich*
2	Lowestoft
3	Newmarket*
4	Bury St. Edmunds*
5	Felixstowe
6	Sudbury*
7	Needham Market
8	Leiston*
9	Haverhill*
10	Woodbridge
11	Stowmarket
12	Kesgrave
13	Hadleigh
14	Mildenhall
15	Brandon

*** Identified for SWMP**

Martlesham, Rendlesham, Saxmundham, Thurston and Wrentham. There are currently a total of 21 hydraulic models covering 20% of the land area and 45% of the population of Suffolk, greatly increasing the quality and quantity of surface water flood risk information available.



4 Priority Development Opportunities

4.1 SuDS Delivery and Maintenance

The concept of SuDS providing effective water management functions is reasonably well established. SuDS measures mimic natural drainage processes and should be multi-functional to deliver the four pillars of SuDS; Water Quantity, Water Quality, Biodiversity and Amenity. The NPPF directs the provision of SuDS on all new major developments, with national guidance provided in CIRIA SuDS Manual, alongside local guidance for planners, designers and maintainers. Their early consideration in development proposals is important to gain maximum combined benefit and well-integrated land use and function.

The measures need to deliver acceptable standards of operation over a long term (NPPF refers to 'for the lifetime of the development) and therefore it is vital that there are sound, reliable and long term maintenance arrangements in place. The adoption of SuDS measures by Water Companies and the Highway Authority is key. The LLFA will work closely with these adopters, together with Local Planning Authorities and Developers to facilitate adoption.

4.2 Multiple Benefit Approach

Natural flood management is the use of natural processes and resources to reduce the risk of flooding. This type of delivery approach gives great opportunity to achieve the objective to increased biodiversity and environmental net gain, improved water quality, storage and water reuse opportunity, aesthetic improvements and public access, recreation, enjoyment, and wellbeing.

Examples include increasing infiltration of rainwater into the soil by changing the way land is managed, slowing watercourse flows, and slowing water running off land using natural

dams and holding water back in ponds and landscape features and tree planting. The effects of individual measures is likely to be small scale, but a number of such features and in combination with other more traditional hard and soft engineering can be cost effective and sustainable way to manage flood risk while creating wildlife habitat and recreational landscapes. Working closely with landowners to seek mutually beneficial funding sources, agreeing work content, ownership of measures and their maintenance can be challenging.

Through this local strategy we would like to work with communities, Internal Drainage Boards, the agricultural community, and conservation groups to develop ideas, identify opportunities and funding sources to deliver numbers of natural flood management schemes in Suffolk.

There is a key opportunity to combine this nature-based approach to flood management with the implementation of Environmental Land Management scheme in 2024.

4.3 Community Engagement

The delivery of effective flood risk management measures in new developments is catered for through the planning process and regulation. However, it can be within existing established communities and developments that there are unknown risks and challenges in local flood risk management. The risk of flooding is often not considered by a community until an event occurs and then it is a reactive response. Helping communities to understand the causes of flooding and related risks and supporting them to help themselves and become resilient and proactive brings benefit through physical measures and through feeling more secure. The ‘Our Water’ project which we began in 2018 is community based, supported by professionals and enables community groups to map watercourses, drainage routes, infrastructure and assets and become familiar with the dynamics of water and drainage in their community and take ownership of water and its effects, and take preventative actions that reduce the risk of flooding.

Through this local strategy we will work with local communities to improve understanding of flood risk and to become more resilient to local flooding.

4.4 Funding

The main source of capital funding for flood risk management projects comes from central government in the form of Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA). The grant payment is based on several factors with key targets to better protect homes from flood and coastal erosion. More grant is available for incorporating net gain in environmental enhancements. Consideration is also given to the mental health and emergency response impacts. Increases in flood risk through climate change are also considered and can attract more grant if homes at risk in the future can be protected. Often, the level of eligible grant will only part fund a project and partnership funding will be required to provide the remaining project costs.

The challenge is to develop schemes which have a combination of benefits to be able to access the widest range of funding sources, and hence to increase the likely success of achieving full funding.

Through this local strategy we need to continue to work closely with partners to identify schemes with shared multiple benefits that will give maximum access to funding. The LLFA will seek contributions from beneficiaries of flood risk management, infrastructure providers, business, water companies, highways, schools etc.

What is your role?

- Gain knowledge on local flood risk and feedback to the council and your community.
- Potentially identify some **mitigation measures** for flood risk.
- Improve understanding of drainage systems and conditions in your area.

Number	Type		Condition		Date	Height	Other	Comments
	Open	Blocked	OK	Bad				
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2m	1m		Headwall collapsed
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				Colour partially blocked with debris

Riparian responsibilities

We aim to engage with the community to understand the landowners **riparian** responsibilities

Who is responsible for what?

- Bridge structure:** Responsibility of adjacent landowner to arrange maintenance with Highways Authority.
- Highway:** Responsibility of Highways Authority for maintenance.
- Headwall bridges and dykes:** Responsibility of adjacent landowner for maintenance.
- Dyke on boundary of two properties:** Landowner shares responsibility for maintenance.
- Piped ditch:** Responsibility of adjacent landowner for maintenance.
- Highway gully:** Responsibility of adjacent landowner for maintenance.
- Headwall ditch:** Responsibility of adjacent landowner for maintenance.

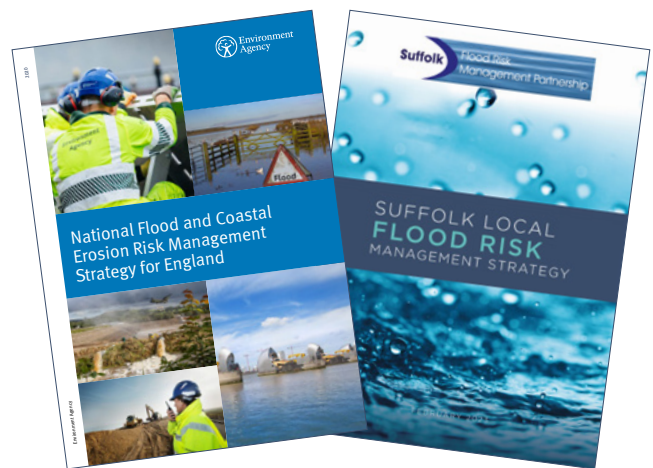


5 Strategy Objectives

The 2011 Suffolk FRM Strategy set out 7 Objectives dealing with understanding flood risk, partnership working, SuDS promotion, watercourse and flood infrastructure maintenance, sustainable and holistic water management, and knowledge / information / best practice sharing.

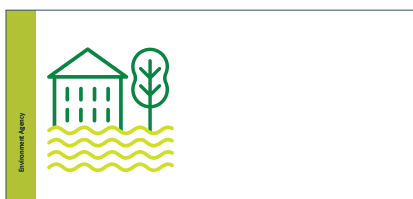
Good progress has been made on these with much of the outcome now embedded in the work of the LLFA, partner organisations, and risk management authorities.

With the publishing of the 2020 National Strategy in September 2020 it is appropriate to refocus and consolidate the Suffolk Strategy’s objectives to align with the national long-term vision and ambitions.



Vision: A nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.

Ambitions: Climate resilient place: Today’s growth and infrastructure resilient in tomorrow’s climate: A nation ready to respond and adapt to flooding and coastal change



Within the context of this **Vision** and **Ambitions** and the expectations of the work of risk management authorities (refer Annex 1), **the delivery of flood risk management in Suffolk is guided by 4 Objectives** each with a set of broad Actions from which a Plan of measures can be developed and delivered.

5.1 The Four Objectives

Objective 1: Understanding flood risks – Risk Management Authorities and Partners have a clear understanding of the risks and their roles and responsibilities

Understanding local flood risk, the mechanisms of flood, the changing climate and weather patterns, together with the range of solutions and resources available are essential to effectively reduce the risk of flooding in a managed and co-ordinated way with partners.

Our understanding and knowledge of flood risk in Suffolk has improved through the delivery of the first Local Strategy. Evidence based assessment is important for identifying opportunities for funded, deliverable solutions. We will continue to record, monitor, and where appropriate carry out formal investigations (known as Section 19 investigations) into flooding, from which we can inform investment and develop Surface Water Management Plans and flood risk reduction and resilience measures.

Actions to achieve the objective

- Regular review and assessment of local flood risk across Suffolk by RMAs.
- Clear communication to Suffolk's communities of local flood risk and where responsibilities lie for managing the risk. Continue to record flood incidents in a simple and consistent way, analyse data and make information and data available to the public, local partners, and other interested parties.
- LLFA to undertake investigations into significant flood incidents and publish recommendations.

Objective 2: Reduce the risk of flooding and building resilience – Protection of people, business, and key infrastructure

Working together with partner authorities and others using combined knowledge and resources to deliver cost effective programmes and projects to reduce the risk and effects of local flooding to people, business, and key infrastructure.

From information and data collected about reported and recorded flood events, together with investigations and modelling, we will develop a programme of local flood risk interventions, seeking funding from partners to deliver these. Key partners are Environment Agency, Highway Authority and water and sewerage utilities.

Actions to achieve the objective

- Maintain effective partnership working and information sharing through the SFRMP.
- Continue to develop SWMPs and other local flood risk assessments to understand potential opportunities to reduce existing local flood risk.
- Prioritise SCC resources and collaborate with partners, communities, and landowners to deliver flood risk reduction projects identified via SWMPs.
- Seek to prioritise projects that can deliver multiple benefits including natural flood management, water quality improvements, beneficial water storage opportunities, biodiversity enhancement and public access.
- Work closely with the local highway authority to deliver joint funded projects and optimise maintenance regimes.
- As appropriate, work with partners, communities, and individuals to access funding and install property level resilience measures.

Objective 3: Resilient growth, planning and development – Land use planning and development decision making takes account of flood risk and appropriately contributes to environmental net gain and flood resilience

Ensure that flood risk and corresponding impacts are effectively considered in strategic and local plan making and development growth processes in Suffolk.

- Growth in the county, which includes the provision of new homes, growth in business and jobs, places demands on infrastructure, including that relating to flood risk management, both natural and manmade infrastructure. New developments must take full account of flood risk and impacts to make them safe for their lifetime and to ensure that flood risk is not increased elsewhere.

Actions to achieve the objective

Provide effective, high quality technical advice to developers and planning authorities regarding local flood risk, drainage, and water management at all stages in the production of a Local Plan; for all major and non major developments; and for minor developments with significant local flood risk.

- Promote the benefits of SuDS and nature-based solutions through the planning advice and consultee role.
- Develop and support the roll out of a Suffolk wide pre-application advice service relating to flood risk, water management and SuDS requirements associated with development proposals.
- Regular review and further development of the LLFA's SuDS Guidance and Standards.
- Maintain, publish, and promote up to date best practice advice for partners and development professionals, ensuring adequate training and information exchange opportunities are provided.

Objective 4: Resilient communities – Suffolk communities are aware of flood risk and given support and access to information to enable them to take action and be more resilient to flood and its impacts

Empower and support communities so that they can act individually, jointly or in partnerships to protect themselves from flooding and its impacts.

Actions to achieve the objective

- Identify communities to become part of the 'Our Water' project.
- To provide training and support to these communities to act to reduce flood risk and effects of flooding and increase resilience in their communities.
- Continue to make flood incident, advice, and information accessible, relevant, and available to communities.
- Deliver the Innovative Resilience Fund - Holistic Water Management project to explore new ways of working in partnership with case study communities.

5.2 Monitoring and Delivery of Actions

Actions will be reviewed and monitored by the partnership and progress reported to its meetings and other stakeholders as appropriate.



6 Funding

6.1 Central government

The principle source of funding for flood risk management projects is Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA). This is a central government fund focused on the number of homes better protected.

There are generally more schemes proposed than funding is available for in any one year. There is an annual round of grant allocation and all projects must first be included in the Medium-Term Plan (MTP). This identifies potential projects, the level of funding required and requirement for partnership funding, the benefits identified for the scheme and the timescales involved.

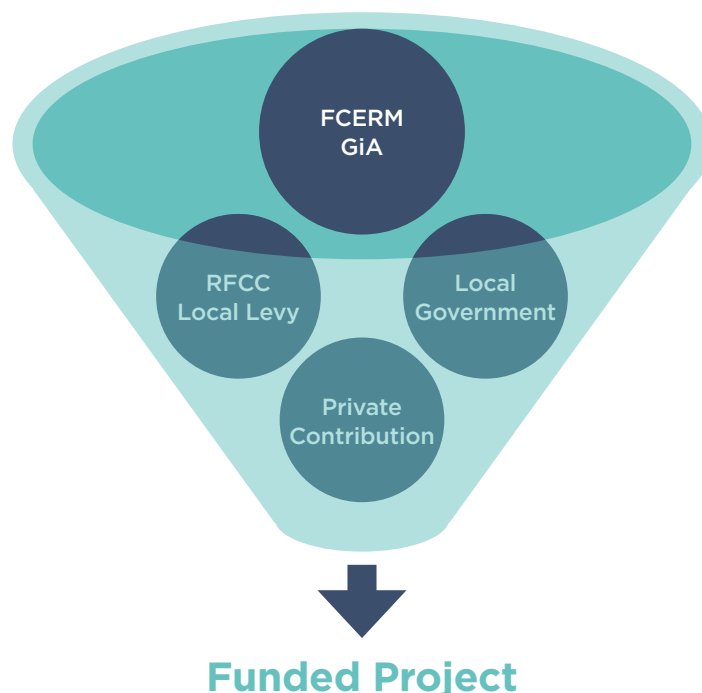
A scheme will only qualify for FCERM GiA funding if it can deliver, as a minimum, the same amount of benefits as it costs to deliver; benefit/cost ratio. The amount of benefit delivered determines the amount of grant claimable. Often the level of grant available is insufficient to cover the whole delivery cost of a scheme. In these cases, partnership funding contributions will be required. These can come from any source.

6.2 Partnership Funding

Finding partnership contributions is challenging. This local strategy will help to highlight the importance of partnership working and contributions to help progress projects where possible. The three main categories of partnership funding are local government, Regional Flood and Coastal Committee (RFCC) Local Levy and private contributions.

1. **Local government** - These contributions come from the County Council or District / Borough Councils. Funding from local authorities is discretionary and therefore funding for projects will compete with a wide range of other authority priorities. Parish and Town councils can contribute and are able to raise funds through precepts.
2. **Regional Flood and Coastal Committee - Local Levy** - Local levy is raised through council tax and is a specific fund to support locally important schemes. The RFCC will set principles on projects to support with the grant administered through the Environment Agency.
3. **Private Contributions** - Private contributions offer the widest range of partnership funding but often the most difficult to secure. The National Strategy encourages the use of funding and finance from all sources across public and private sectors. Below are examples of private contributions:
 - **Beneficiaries of the scheme** - This can include businesses and private residential who will benefit directly from the scheme.

- **New Anglia Local Enterprise Partnership (LEP)** - partnership of businesses, local authorities and education institutions working together. Through this partnership they seek to strategically drive economic growth; jobs and skills; inward investment; infrastructure; and business growth. To facilitate and deliver these outcomes the LEP's have access to several funding sources. A flood risk project that can demonstrate economic benefits to an area may attract funding from the LEP.
- **Utilities** - Where utility providers, such as water companies, have assets at risk of flooding, and a scheme would reduce that risk, there is potential to negotiate with the utility company to contribute some funds. This would be based on the value of assets at risk, loss of revenue, industry regulator imposed penalties, and the cost of repairs in the event of damage.
- **Community Infrastructure Levy (CIL)** - is levied by local planning authorities on new developments in their area to support development by funding infrastructure, including flood risk projects. Parish Councils will receive 15% of this levy directly and this will be increased to 25% if they have a Parish Plan.
- **Charities and Trusts** - They may be able to contribute towards a project if it aligns with their core objectives.
- **Landowners** - Landowners, especially those directly at risk from flooding, have a range of opportunities to support schemes. These can include direct financial investment or donations "in kind", for example materials such as locally sourced clay. Other valuable partnership contributions can also be use of equipment and labour resources.
- **Developer Contributions** - a developer may contribute to a project because it enables appropriate development to progress faster and open sites for development that would have been otherwise delayed or unavailable because of flood risk. Allow those areas that can be developed to have a higher standard of protection than previously. Contributing to new defences may negate the need for site level mitigation that would otherwise be needed to make the development safe and consistent with planning policy. Support economic growth and jobs for the community, potentially driving further growth by unlocking development sites which would not have qualified for funding. Deliver infrastructure to a high standard, taking account of climate change, which may increase the market value of a development by 'future-proofing' it.



7 2016 Suffolk Flood Risk Management Strategy Saved Policies and Guidance

A number of ‘sibling’ documents were developed, adopted and regularly reviewed as part of the first Suffolk Local Strategy in 2011. These were appended as lettered appendices.

They articulate policy and guidance in support of strategy objectives and measures and remain pertinent to this 2023 Local Strategy. They are regularly reviewed and updated to accord with changes in legislation, national and regional guidance, advice, and best practice.

The current documents to be appended to this strategy are detailed below.

APPENDIX A - Sustainable Drainage Systems (SuDS), a Local Design Guide

A guidance document to help developer and planners understand how the LLFA expect to see drainage designed on new developments in Suffolk

APPENDIX B - Policy for Working on Watercourses in Suffolk

A policy and guide to consenting and enforcement of works on watercourses pursuant to the Land Drainage Act 1991.

APPENDIX C - Protocol for Local Planning Authorities and Developers on SuDS, Surface Water Drainage and Local Flood Risk in Suffolk

Sets out how the LLFA will respond to planning applications for development as a statutory consultee.

APPENDIX D - Flood Investigation - S19 Flood and Water Management Act 2010

Sets out when and how the LLFA will investigate flooding events as required by S19 of the Flood and Water management Act 2010

APPENDIX E - Guidance for Riparian Ownership in Suffolk

A guide to make clear the rights and responsibilities of landowners who are riparian owners.

APPENDIX F - Advice on what to do before, during and after a flood

A practical guide for property owners on what to do to protect themselves and their property.

ANNEX 1 - Risk Management Authorities actions identified in the National FCERM for each of its ambitions

1 Climate Resilient Places

Risk management authorities will work with partners to:

- Deliver practical and innovative actions that help to bolster resilience to flood and coastal change in local places.
- Make greater use of nature-based solutions that take a catchment led approach to managing the flow of water to improve resilience to both floods and droughts.
- Maximise opportunities to work with farmers and land managers to help them adapt their businesses and practices to be resilient to flooding and coastal change.
- Develop adaptive pathways in local places that equip practitioners and policy makers to better plan for future flood and coastal change and adapt to future climate hazards.

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

Risk management authorities will work with partners to:

- Put greater focus on providing timely and quality planning advice that helps avoid inappropriate development in areas at risk of flooding and coastal change.
- Leave the environment in a better state by contributing to environmental net gain for new development proposals.
- Ensure that spending on flood and coastal resilience contributes to job creation and sustainable growth in local places.
- Mainstream property flood resilience measures and to 'build back better' after flooding to reduce damages and enable faster recovery for local communities.
- Provide expert advice on how infrastructure providers (road, rail, water, and power supplies) can ensure their investments are more resilient to future flooding and coastal change avoiding disruption to peoples' lives and livelihoods.

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

Risk management authorities will work with partners to:

- Support communities to better prepare and respond to flooding and coastal change, including transforming how people receive flood warnings.
- Ensure people and businesses receive the support they need from all those involved in recovery so they can get back to normal quicker after flooding.
- Help support communities with managing the long-term mental health impacts from flooding and coastal change.
- Develop the skills and capabilities needed to better support communities to adapt to future flooding and coastal change.
- Become a world leader in the research and innovation of flood and coastal risk management to better protect current and future generations.

Glossary and abbreviations of words and phrases commonly used in flood and coastal risk management

AONB	Area of Outstanding Natural Beauty
Aquifer	A layer of porous substrate that contains and transmits groundwater
AW	Anglian Water
Asset Register	Register of structures or features which are considered to influence flood risk.
CFMP	Catchment Flood Management Plan – strategic plans for flood management
Consenting	Process of obtaining permission to add/amend structures in/near a watercourse or flood defence structure
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
FCERM	Flood and Coastal Erosion Risk Management
FDGiA	Flood Defence Grant in Aid
Fluvial flooding	Flooding from rivers
FMfSW	Environment Agency’s Flood Map for Surface Water
FRMP	Flood Risk Management Plan. Strategic plan required under EU Flood Directive
Foul flooding	Flooding that is contaminated with sewage
GIS	Geographic Information System. Software that captures, stores, analyses, manages, and presents data that is linked to location.
Groundwater flooding	Flooding when water levels in the ground rise above the surface
IDB	Internal Drainage Board
JEPU	Joint Emergency Planning Unit
LDA	Land Drainage Act
LDF	Local Development Framework – planning framework
LiDAR	Light Detection and Ranging. Method for collecting high-resolution topographic data
LLFA	Lead Local Flood Authority. In England, either the unitary authority for the area, or if there is no unitary authority, the county council for the area.
Main River	A statutory watercourse – usually larger streams and rivers marked as such on the Environment Agency main river map.
Ordinary Watercourse	A statutory type of watercourse including river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) that is not classified as main river.
PFRA	Preliminary Flood Risk Assessment. A high-level summary of significant flood risk describing the probability and consequences of past and future flooding, required by the Flood Risk Regulations 2009.

Glossary and abbreviations of words and phrases commonly used in flood and coastal risk management

Pluvial flooding	Flooding from rainfall – another name for surface water flooding.
RAMSAR	Wetlands of International Importance
RBMP	River Basin Management Plan – plan for the delivery of the Water Framework Directive
RFCC	Regional Flood and Coastal Committee
Risk	Risk = probability of an occurrence x its potential consequence
S19 Investigation	An investigation of a significant local flooding incident by the LLFA as required by Section 19 of The Flood and Water Management Act 2010
SAB	SuDS Approval Body (the county council)
SAC	Special Areas of Conservation - Areas protected under the EU Habitats Directive
SCC	Suffolk County Council
SFRA	Strategic Flood Risk Assessment
SFRMP	Suffolk Flood Risk Management Partnership
SMP	Shoreline Management Plan – strategic plans for the long-term management of the coast
SRF	Suffolk Resilience Forum
SPA	Special Protection Area. Areas protected under the EU Birds Directive which support significant numbers of wild birds and their habitats.
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
Surface water flooding	Flooding caused by high intensity rainfall that generates flows over the ground and collects in low lying areas. Also known as pluvial or flash flooding.
SW	Surface Water
SWMP	Surface Water Management Plan
Water & Sewerage Companies	Companies responsible for provision of both water and drainage of wastewater and sewage (e.g. Anglian Water).
WFD	Water Framework Directive

**Thank you
for reading
our document.**