

# National Flood and Coastal Erosion Risk Management Strategy for England

## Questions and Answers Document

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# 1. Introduction

This document is aimed at anyone who is reading the national flood and coastal erosion risk management strategy for England (the 'Strategy'). Now endorsed by parliament, the national Flood and Coastal Erosion Risk Management (FCERM) Strategy for England is adopted and published on [gov.uk](http://gov.uk).

## What should you use this document for?

This document should be used by Environment Agency staff who are engaging with partners, stakeholders, and people reading the Strategy for the first time. This document offers further information about why the Strategy is important to them, and to understand why we are introducing a number of changes that will benefit people's lives.

The document covers high level questions and answers (Q&A) about the Strategy including how it relates to people, the vision, the key ambitions, and explains more in-depth elements of the Strategy that will transform how we manage flood and coastal change, such as climate change, resilience and the environment.

This document should be read alongside the Strategy.

# 2. The Strategy - high level questions

## Why is a Strategy needed?

The Flood and Water Management Act 2010 requires the Environment Agency to prepare a Strategy for England setting out the objectives for managing flood and coastal erosion risk, the measures to achieve those objectives, how and when the measures are to be implemented, the costs and benefits of those measures, and how they are to be paid for.

The Strategy needs to be informed by an assessment of flood and coastal erosion and it needs to explain how and when the Strategy is to be reviewed. Importantly, the Strategy needs to include the current and predicted impact of climate change on flood and coastal erosion risk management, and how the Strategy contributes towards the achieving wider environmental objectives.

## Why is the Strategy different to what the Environment Agency has done previously?

The purpose of the Strategy remains the same - to set out how flood and coastal erosion risk will be managed in England. However, the drivers affecting flood and coastal erosion risk management have changed since the [last Strategy](#) published in 2011, and that means it's time to take stock.

Climate change is one of the biggest risks we face and it is happening now – it is already causing more frequent, intense flooding and sea level rise. We need to take urgent action to prepare for a range of future scenarios including a 4°C rise in global temperature. Alongside population growth, it is one of the underlying drivers for the changes we are proposing.

The Environment Agency is a world leader in building flood protection but as the threat of climate change accelerates, we need a range of tools to ensure communities are resilient alongside protection.

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## How will the Strategy affect me?

Everyone has the potential to be impacted by flooding or coastal change. You may be directly affected if your home floods, or you live in an area at risk from coastal erosion, or you may be indirectly affected. For example, your workplace may be impacted, or roads, rail, or utilities such as water and electricity may be disrupted.

The changes proposed by this Strategy are relevant for everyone. The aims and ambitions of the Strategy apply to your community, workplace, environment and the infrastructure and services you rely on.

This Strategy describes what needs to be done by all risk management authorities involved in flood and coastal erosion risk management (FCERM) to reduce the risk of flooding and coastal erosion, and to manage its consequences. However, the Strategy will not be delivered by risk management authorities alone.

We all need to take action now so that we are ready for what the future will bring. We need individuals, communities, the third sector, businesses, farmers, land managers and infrastructure providers to contribute to planning and adapting to future flooding and coastal change.

As the impacts of climate change increase, we'll need others to get more involved to manage the risks we face. By mobilising and empowering a nation ready to respond and adapt to flooding and coastal change we'll be better able to take responsibility for dealing with the risks posed by flooding and the erosion of our coastline.

The Strategy sets a national ambition for England, but one that can work for different places. It recognises that every place is different – made up of different people with different skills, needs and infrastructure, and often in different environments.

## What steps can you take to be more resilient to flooding and coastal erosion?

Over 5.2 million homes and businesses are at risk of flood and coastal erosion. Yet only a third of people who live in areas at risk of flooding believe their property is at risk. We need to change this – the Strategy includes ways to do this, but there are already actions you can take.

You can check whether the area where you live is at risk of flooding or coastal change by checking 'Find out if you're at risk of flooding in England' on [gov.uk](http://gov.uk). From there, you can check current flood warnings on-line, and enter your post code to show warnings near you. You can also check the flood forecast over the next 5 days, and the long term risk for your post-code.

There are simple steps you can take such as signing up for flood warnings by phone, email or text message if your home or business is at risk of flooding. The service is free. You can also protect yourself from future flooding, such as making a personal flood plan. These prompts can be found on [gov.uk](http://gov.uk).

## What has happened since the last national flood and coastal erosion risk management (FCERM) Strategy for England?

A lot has happened since 2011, including significant events such as the 2013 east coastal tidal surge, the 2013/14 winter flooding in the south of England, the 2015/16 winter

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flooding in the north of England, and most recently flooding from Storms Ciara, Dennis and Jorge.

Whilst no single event can be attributed to climate change, the trends we have been observing (stronger and more frequent storms) appear to fit with the evidence from the 2017 Climate Change Risk Assessment and the updated [2018 UK Climate Impacts Projections](#).

Risk management authorities have also had record levels of investment in flood and coastal change, with £2.6bn of government funding going towards better protecting 300,000 homes between 2015 and 2021.

Now is the right time to check that what we're doing is right to prepare the nation for the range of possible climate change scenarios and the flooding and coastal change risks they will bring.

The government's [25 Year Environment Plan](#) has also stated that '*...we will update the national flood and coastal erosion risk management strategy, looking to strengthen joint delivery across organisations*'.

### **What is the vision of the Strategy?**

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

The Strategy will help the nation to embrace a broad range of resilience actions including better protection from flooding and coastal change.

The vision can work for every place. But we recognise that every place is different and there is no one size fits all solution to flood and coastal resilience. The only way of doing this is to put people at the heart of decision making.

### **How far does the Strategy look out into the future?**

Looking to the year 2100, the Strategy aims to blend long-term ambitions with shorter-term practical steps.

The Strategy's strategic objectives identify outcomes needed over the next 10 to 30 years to help support the longer-term ambitions for change needed by 2100. It also sets out shorter term measures for helping to achieve the Strategy's objectives.

### **How does the Strategy relate to Defra's flood and coastal erosion risk management flood policy statement?**

Alongside the Strategy, Defra have published a new flood and coastal erosion risk management policy (July 2020). This policy statement aligns well to the ambitions of the Strategy.

The Strategy provides a framework for guiding the operational activities and decision making of practitioners supporting the direction set by government policy which includes its flood and coastal erosion risk management policy statement.

Taken together, the policy statement and the Strategy will ensure that our country is more resilient to flooding and coastal erosion in the long term.

## 3. Strategy ambitions

### What are the ambitions of the Strategy?

The Strategy has 3 long-term ambitions:

- **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.

### What are the key messages that cut across these ambitions?

Common to all three ambitions, the Strategy will ensure:

- The right investment and planning decisions are made today so that we can keep pace with trends that might affect us in the future, such as population growth and climate change.
- Everyone plays their part - we can't prevent every flood or change to our coast. Together, people, businesses, public and voluntary sectors need to support each other, to prepare for unavoidable flooding and loss of homes and infrastructure to the sea. Disaster is not inevitable: we can tackle flooding and coastal change, but only if we act purposefully and collectively.

### Does the Strategy cover all sources of flooding as well as coastal change?

The Strategy considers the current and future risks of flooding and coastal change. This includes all sources of flood risk (flooding from rivers, sea, reservoirs, surface water, groundwater and ordinary water courses), and also coastal change.

## 4. Key themes

### Climate change

#### Why is climate change core to the Strategy?

The most recent climate change projections confirm we will experience wetter winters and drier summers, with an increased likelihood of more intense rainfall leading to flooding. Over the past decade we have already seen more extremes in our weather, leading to increased flooding and summer heatwaves.

We need to take urgent action to prepare for a range of future scenarios including a 4°C rise in global temperature.

The scale of potential future flooding and coastal change is significant. Despite the positive work of the Environment Agency and other risk management authorities, we need to adopt and implement a range of different actions.

The Strategy will help the nation to embrace a broad range of resilience actions including better protection from flooding and coastal change.

### **How does the Strategy tackle the increased flood and coastal change risk caused by climate change?**

While it will never be possible to prevent all flooding and coastal change, if we don't change our approach, we risk locking future generations into a legacy of increasing challenges.

The focus of the Strategy is very much on what can be done now to respond to climate change, as well as on how to plan and adapt for decades to come.

We already build climate change projections into the design of flood defences to ensure they are fit for the future and, over the course of six years up to 2021, are building new schemes which will better protect 300,000 homes.

Building and maintaining flooding and coastal change infrastructure to keep pace with climate change will remain critical to the future resilience of people, property and other infrastructure.

### **Why does the Strategy include net zero emissions?**

In response to the climate emergency, the government has enshrined in law a commitment to reach net zero carbon emissions by 2050. It is important all those involved in managing flooding and coastal change show leadership in achieving this ambitious target.

The Environment Agency (2019) has set itself a goal to become a net zero organisation by 2030. If we are to achieve this FCERM will need to play its part.

There are two main ways we can tackle the impacts of climate change, which includes flooding and coastal change. These are: mitigation (reducing or limiting the effects of greenhouse gases that bring about climate change) and; adaptation (changing our lifestyles, economy, infrastructure and local places to make us more resilient and adaptable to future consequences).

### **Does the Strategy encourage others to focus on net zero?**

We will work across government, business, and with communities up and down the country to mitigate against and adapt to climate change. For example, we will also work with others to implement nature-based solutions such as restoring degraded peat bogs, wetlands, saltmarsh habitats and woodlands.

### **Why is the Strategy preparing for a 4°C rise in global temperature when the world is aiming for 1.5°C?**

The government's latest UK Climate Projections cover a range of future scenarios including a potential 4°C rise. This Strategy is seeking to better prepare us for 2°C warming in global temperatures as well as planning for higher scenarios, such as a 4°C rise in global temperatures.



## Resilience and adaptive approaches

### Why is the Strategy looking at increasing resilience?

We must continue to do what we have been doing: building and maintaining strong defences to reduce the risk of places being flooded. But, in the face of a changing climate, we need to embrace a broad range of resilience actions including better protection from flooding and coastal change. This ensures that when flooding and coastal change does happen it causes much less harm to people, does much less damage, and ensures life can get back to normal much more quickly.

This Strategy will help the nation to embrace a broad range of resilience actions including better protection from flooding and coastal change. We need to ensure communities are prepared in advance of flooding or coastal change happening so they can continue to grow and thrive even when flooding or coastal change occurs. We will need to do this by using a variety of 'resilience actions' which enable us to prepare for, protect against, respond to and recover from flooding and coastal change.

### What is the Strategy's definition of resilience? There are so many.

There is no single definition of 'resilience', it can be framed in a number of different ways. Through the Strategy we introduce the concept of 'resilience for places' which refers to **the capacity of people and places to plan for, better protect against, respond to, and recover from flooding and coastal change**. Traditional defences remain vitally important but we want people to be more resilient so they are ready to respond when flooding hits and they can recover more quickly.

### How can we all turn resilience into a reality?

There are many actions that people and places can use already to improve resilience to flooding and coastal change. Every place is different and so the exact combination of resilience actions will be tailored to a particular place, reflecting local aspirations, opportunities, economic and environmental needs.

There cannot be a 'one size fits all' approach. Ultimately, the effectiveness of resilience actions will depend on a number of factors including funding arrangements, local application of national policy, as well as local community support and engagement. The Environment Agency will both lead and support effort on how these actions are developed, and a new £200m innovative resilience programme will support this.

### What is the £200m innovative resilience programme?

In the 2020 Budget, the government provided £200 million between 2021 and 2027 for a resilience programme. The programme will enable local places to test, develop and implement innovative resilience actions to help communities at risk of flooding and coastal change. The programme will support 25 places in urban, rural and coastal areas across the country to take forward resilience actions.

The funding will be available at a strategic scale reflecting county and catchment boundaries and be for Lead Local Flood Authorities and Coast Protection Authorities to apply for, in collaboration with local partners and local communities. The places selected will serve as exemplars for flood and coastal resilience showing the way for other places in the country.

## **What are adaptive approaches and why is the Strategy focussing on them?**

Taking an adaptive approach simply means making the right decision at the right time, and being flexible to review and amend this where needed in the future. It enables flood and coastal erosion risk management to be carried out in a way that is agile to the latest climate science, growth projections and other changes to the local environment.

Resilience for places must be considered as part of an adaptive approach to manage future climate impacts, to ensure places get a head start on climate change and limit the damages from future flooding and coastal change. Looking out to 2100, adaptive approaches or 'adaptive pathways' will give local places 'decision points' to help navigate through an uncertain future in collaboration with local partners and communities.

The Strategy also includes measures that will develop, test and learn from adaptive pathways in locations across the country so that we can mainstream adaptive approaches in the future.

## **Does the Strategy support communities along the coast? Will some have to move?**

The Strategy is a flood and coastal strategy and coastal communities are a priority, with resilience also applying to the coast.

We recognise that in some cases the need for communities to transition and adapt to flooding and coastal change will be difficult. The scale of the threat may be so significant that decisions may be needed in the longer term to ensure the safety of those communities. If this means moving out of harm's way, we need to ensure that people and communities are at the heart of those decisions.

## **The environment**

### **What is the 25 Year Environment Plan and how does that relate to the Strategy?**

The Strategy's objectives and measures will contribute to the wider environmental objectives presented in the 25 Year Environment Plan.

Specifically, the Strategy will support the 25 Year Environment Plan objectives to protect threatened species and provide richer wildlife habitats; reduce the risk from natural hazards; and adapt to and mitigate climate change. The Strategy also takes account of the natural, built and historic environments that are valued by so many people and protected by legislation.

### **What are nature-based solutions?**

Nature-based solutions use natural processes to reduce the risk of flooding or coastal change. For example, by restoring bends in rivers; changing the way land is managed so soil can absorb more water; and creating saltmarshes on the coast to absorb wave energy.

Our evidence has shown that working with natural processes can reduce risk in smaller catchments for low magnitude, high frequency flood events and can contribute to reducing coastal flooding and coastal change. They can also provide additional benefits including: biodiversity; water quality improvements; strengthened water resources; mitigation of and adaptation to climate change through, for instance, wetland creation and coastal and



fluvial realignment; and providing urban biodiversity and amenity green spaces through sustainable drainage systems.

The Strategy highlights examples of working with natural processes, such as:

- reconnecting rivers with their natural floodplain, recognising the role of soils in reducing rapid run-off, or creating new areas where water can be stored
- in urban areas, using green infrastructure and sustainable drainage systems
- in coastal areas, creating wetlands, beach nourishment and managed realignment of the coastline to support environmental protection and enhancement

### **What is net gain?**

‘Net gain’ is an approach to development that aims to leave the natural environment in a measurably better state than it was before, by creating or enhancing habitats.

Development will make its impact on the environment positive, delivering improvements through habitat creation or enhancement after avoiding or mitigating harm as far as possible.

Achieving environmental net gain means achieving biodiversity net gain first, then going further to ensure other ways of improving the environment are investigated and implemented.

The Strategy highlights how risk management authorities will work with partners to leave the environment in a better state by contributing to environmental net gain for new development proposals.

## **Food and farming**

### **How does the Strategy consider food, farming and rural land management?**

Food security is a highly important consideration for the nation now and into the future. Approximately 12% (1.4 million hectares) of agricultural land in England is at flood risk from rivers or the sea, or from both. This includes 57% of the Grade 1 agricultural land.

Between 2015 and 2021, risk management authorities will have completed flooding and coastal change projects that better protect over 280,000 hectares of agricultural land, helping to avoid more than £500 million worth of economic damage to agricultural land production.

The Strategy will encourage risk management authorities and the Environment Agency to 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.

The Environment Agency will also work with farmers and risk management authorities to develop an adaptive plan for managing future flood risk in the Fens, given the Fen’s importance to the nation’s food security.

## **Insurance and financial sector**

### **How are insurance and finance industries included?**

The Strategy encourages property owners to ‘build back better’, with support from the financial sector including mortgage lenders and insurers. These groups could have a crucial role to play in helping to stimulate the market in property flood resilience measures and tackling the financial barriers to building back better following flooding.

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The Strategy ambition on growth and infrastructure also encourages risk management authorities to work with the finance sector and other partners to ensure that investments in flooding and coastal change enable growth in a sustainable and climate resilient way, and mainstream property flood resilience measures to ‘build back better’ after flooding.

## Build back better

### Why should the Strategy explore the ‘build back better’ concept?

The protection provided by defences can only ever be one part of a wider toolkit for creating more climate resilient places.

‘Building back better’ is about finding ways to enhance property level resilience at the property level, and even enhancing resilience of a wider street or town, but equally it is about finding ways for the finance and insurance sector to support these efforts.

We also recognise that in some places the scale and pace of future flooding and coastal erosion will be very significant. Over a period of time, some of these communities may choose to transition and adapt with support from risk management authorities.

We need to ensure that everywhere people are at the heart of decisions about the place where they live. Everywhere is different. Each solution will need to reflect the wishes and needs of the people who live there. And in many places the best solution is likely to change over time.

### Will the Strategy lead to ‘abandonment’?

We recognise that in some cases the need for communities to transition and adapt to flooding and coastal change will be difficult and, in some places, controversial.

We will not be imposing this on people, instead those best placed to support will work with those impacted. This will take time, in many places a long time, so we need to start having these conversations now. Not only will this help people come to terms with transitioning and adapting, but it will help those supporting organisations to put in place everything they can to help.

As with ‘building back better’, we need to ensure that everywhere, people are at the heart of decisions about the place where they live.

## Wider infrastructure resilience

### Why is the Strategy seeking infrastructure providers to become more resilient?

Infrastructure serves both national and local needs and covers everything that supports society and business, including transport, electricity, communications, water as well as schools, hospitals, doctors, food distribution, shops etc.

The economic damages from flooding of national infrastructure were seen during the winter 2015 to 2016 flooding. Storms Desmond, Eva and Frank brought flooding to many parts of the north of England with more impacts of infrastructure. We have also witnessed road and rail disruption from the recent Storms Ciara, Dennis and Jorge.

As a nation we need to improve current infrastructure so it is resilient to flooding and coastal change, but also ensure new infrastructure that is planned is resilient to the range of future climate impacts.

## Mental health impacts

### Why are mental health impacts a feature of the Strategy?

We know that those who experience flooding can suffer serious mental health problems, affecting their ability to work, and further harming businesses. This Strategy will encourage close working with government, other risk management authorities and public health services to ensure the mental health impacts from flooding are factored into long-term recovery planning.

In turn, this will help individuals and communities to be mentally prepared for flooding and coastal change and better able to recover from the mental health and wellbeing impacts that often follow.

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

### Why is the Strategy so focussed on creating a nation ready to respond and adapt to flooding and coastal change?

In order to achieve the first two ambitions, we need the third ambition, which is about mobilising and empowering people so that they understand the impacts of flooding and coastal change, are responsible for managing the impacts and know how to take action.

We also want to inspire the younger generation to become more involved in the flood and coastal sector and enable a wider shift in people's thoughts from the concept of protection to that of resilience, through education.

## 5. Wider engagement

### How has the Environment Agency engaged with government?

We have worked closely with the Department of Environment, Food and Rural Affairs throughout the development of the Strategy. The final draft Strategy was submitted to the Minister and Secretary of State for their approval prior to laying in Parliament.

### Is the Strategy just for England?

The Strategy covers England only. However, we have consulted with the Welsh and Scottish governments to ensure that any cross border issues are considered. We will continue to work with Welsh and Scottish governments and relevant flood and coastal erosion risk management authorities to manage risk in these border areas.

### What evidence have you used to support the Strategy?

The Strategy has been informed by a wide range of evidence and publications, from the UK Climate Impacts Programme 2018 covering climate impacts, to the Environment Agency's Long Term Investment Scenarios study. These are shown in more detail in the References section in the Strategy.

The Strategy has also been shaped based on the stakeholder engagement that took place before the draft Strategy consultation, and then from the feedback received during that consultation.

### **Does the Strategy recommend policy/legislative changes?**

The Strategy does not set policy but focusses on implementation of policy. We have worked closely with Defra in the development of the Strategy, and to ensure that the Strategy is aligned with the government's new Flood and Coastal Erosion Risk Management Policy Statement.

### **Did you formally consult on the draft Strategy?**

We formally consulted on the draft Strategy in 2019. The draft Strategy consultation response document explains how responses were taken account of in the final Strategy. This is now published on [gov.uk](https://www.gov.uk) alongside the final Strategy.

## **6. Next steps**

### **How much will the Strategy cost to implement?**

The majority of the Strategy's measures are either statutory requirements or modifications to the existing ways of working of risk management authorities and other emergency responders. Such measures do not lead to cost increases for risk management authorities.

### **How will the Strategy be delivered at a local level?**

This is a national Strategy with national ambitions but how it will be delivered will look different in every place. We can't take a one size fits all approach to places that are experiencing different challenges and levels of flood and coastal risk. This is why we want to provide a range of resilience tools for communities to give them control of how they respond to flooding and coastal change.

### **What will be the benefits of implementing the Strategy?**

There are strong economic, social and environmental cases for investing in resilience to adapt to the impacts of future flooding and coastal change. Our Long Term Investment Scenarios study estimate that as a nation we need an average annual investment of at least £1 billion in flooding and coastal change infrastructure over the next 50 years. The study estimated that investing in flood and coastal change will have a benefit cost ratio of 5:1.

All of the measures will also realise a range of wider benefits, namely: stronger links with people and places; better ways of working; and more shared information across risk management authorities, infrastructure providers, spatial planners and emergency responders. This will all help to ensure people, places and infrastructure are more resilient to flooding and coastal change.

### **How will implementation of the Strategy be governed?**

We will develop arrangements for monitoring and reporting the Strategy's progress with risk management authorities and partners. Alongside the final Strategy, we will publish an action plan on how we will take forward the objectives and measures with partners.

We will report on progress and outcomes, reflecting and learning from our progress, and tracking benefits. We will also continue to report to the Minister under Section 18 of the Flood and Water Management Act 2010.

### **The Strategy is now a legal document - what happens next?**

The Strategy has now been formally adopted and published on [gov.uk](https://www.gov.uk), following parliamentary scrutiny.

To turn the Strategy into real action, we are developing an action plan in partnership with risk management authorities and key delivery partners. The action plan will be published by April 2021 and we look forward to working with Environment Agency colleagues, delivery partners and stakeholders to develop the action plan in a collaborative way.

## **7. Further information**

You can read the FCERM Strategy on [gov.uk](https://www.gov.uk) and if you have any queries, or require further information, please contact <mailto:FCERMstrategy@environment-agency.gov.uk>