

# Creating Climate Resilient Places: a new direction for a nation

## **Introduction**

I'm very pleased to be joining you all this morning for this exciting and innovative edition of Flood and Coast, and am privileged to be sitting at least virtually alongside such an esteemed host and panel. Thank you for inviting me, and thank you in particular to our friends and partners at CIWEM for leading this year's Flood and Coast Event: for obvious reasons, it hasn't been easy – but it is a success.

## **Flooding: the facts**

I know this is an expert audience, but let me start by reaffirming three key facts about flooding which are always good to remember.

Fact one: the risks are big: one in six homes and businesses in England (over 5.2 million properties) are at risk from flooding and coastal erosion. Flooding is the second highest risk on the national risk register – beaten only to the number one spot by the risk of a pandemic – which tells you something about how serious a threat flooding is.

Fact two: the risks are rising: climate change means sea levels could rise by over a metre by the end of the century – seriously worrying in a country like ours in which so many communities are by the coast. Climate change means we could see nearly 60% more winter rainfall by 2050 – seriously worrying for a country with so many rivers, and so many communities in the flood plains of those rivers. And it's not just more winter flooding we need to worry about: while summers will be hotter and drier in the future, when summer rains come they will be 25% more intense than now.

Fact three: flood defence works: while we can never prevent all flooding all of the time, we can and do protect most people most of the time. Most of the 2.7m homes in England which are at risk of flooding from rivers or the sea now have some form of flood defence. Every time there is heavy rainfall or a high tide, Environment Agency defences protect thousands of people, most of whom don't even notice. The new defences we've built over the last decade mean we've seen significantly fewer homes flooded during that period: in 2007, 55,000 homes and businesses flooded. Last winter, despite record breaking rain (February 2020 was England's wettest February ever), the number of properties flooded was much lower – 5,000 (and we must never forget that every one of those is a personal tragedy), with around 130,000 protected as a direct result of our flood defences.

Not only are we seeing less flooding of homes and businesses, we are also seeing much less loss of life. Stronger defences and better warnings – both the responsibility of the EA – mean that very few people now die directly as

a result of flooding. That was not always the case: in 1953 an East coast storm surge killed over 300 people. When a similar surge happened in 2013, nobody died.

That is why we are going to keep on investing in flood defences. The EA is close to completing our current six year £2.6bn building programme which will better protect another 300,000 homes and businesses by April 2021. And we are preparing to launch the next six year investment programme with double the amount of money, £5.2 bn, which will better protect a further 336,000 properties with some 2,000 new schemes.

## **The climate emergency is a game changer**

It is bringing more extreme weather, more frequent storms, more rain and more flood risk. In these circumstances more communities will flood more often, and there will be some places which will become effectively impossible to protect. So we need a new approach. And we need it quickly, because our thinking needs to change faster than the climate.

## **What's new about the Environment Agency flood strategy**

That new thinking is what the new EA Flood Strategy, approved last month by Parliament, seeks to deliver. I am sure everyone in this audience can quote all 118 pages of the Strategy backwards. But for everyone else, here's the short version of what you need to know. The Strategy contains a lot that is new, indeed revolutionary. Let me single out the five most important new things:

Resilience as well as protection. While we must and will continue to build and maintain strong defences to reduce the risk of flooding, in the face of climate change we also need to make our places more resilient so that when flooding and coastal change does happen it causes less harm to people, does less damage, and life can get back to normal quicker. After floods we need to build back better, so properties, infrastructure and the local economy are better able to cope with future flooding. We need to design our houses, cities and infrastructure to be more resilient to the more violent weather climate change is bringing.

Not just hard defences: Hard defences will still be at the heart of our approach to flood risk. But they will no longer be enough on their own. We will need a broader range of actions to ensure climate resilient places. That includes avoiding the wrong development in the flood plain; taking a whole catchment approach to how we manage water, to reduce the risks of both flooding and drought; using nature-based solutions to slow the flow of rivers and store flood waters upstream away from communities; better preparation for and response to flooding through timely and effective forecasting, warning and evacuation; and more property level protection.

Even greater emphasis on tackling climate change. Mitigating the extent of climate change and adapting to its consequences is a fundamental part of

reducing the risk of flooding and coastal erosion. As the Prime Minister has said, there are opportunities for the UK to be a world leader here, including by delivering the government's target of making the UK net zero for greenhouse gas emissions by 2050. The EA is playing its part in that: we aim to be a net zero organisation by 2030.

Greater emphasis on growth. The Strategy aims to ensure all spending on flood and coastal resilience contributes to job creation and sustainable growth in local places. One of the points about flood defence is that it's great value for money: for every £1 we invest we save £5 or more in damages avoided; and done right it generates jobs, growth, prosperity and enhances nature – all of which are doubly important as we seek a green recovery after Coronavirus.

Protecting ourselves against flooding is everyone's job. The EA has and will continue to have a key role to play: we build, maintain and operate flood defences; warn and inform communities when flooding threatens; and come to their aid when it happens. The government has and will continue to have a key role to play too: it sets the overall flood policy for the nation and it funds most of the work to deliver it. But we will only succeed in future in managing the growing levels of flood risk, and tackling all the other effects of the climate emergency, if we all do our bit. The Strategy seeks to build a nation of people who all understand their own flood risk, their responsibility for managing it, and what they need to do to succeed.

## **Conclusion: first maintain the Wall**

Let me conclude with a reminder that ultimately what we do to manage the risk of flooding and coastal erosion is not a dry technical exercise but about the lives and livelihoods of our fellow human beings.

Many of you may know Dymchurch in the beautiful Romney Marshes. Those marshes, and most of the communities that have been there for centuries, owe their existence to the Dymchurch Wall, a sea defence that was probably first built in Roman times and has been improved and looked after by the locals ever since. There was a saying in Dymchurch passed down over generations, and it was this: Serve God, honour the King, but first maintain the Wall.

Today there are many walls that protect our communities up and down the country. Some of those walls are real – hard flood defences, property level protection that reduces the risk of flooding happening and the damage when it does. Some walls are human – for example, the Environment Agency staff who turn out in all weathers to protect communities against flooding. Some of those walls are virtual – for example the EA's digital flood warnings that are accessed today by one in ten of the population. And some of those protective walls, perhaps the most important, are in our own heads – the understanding we now have of how we can reduce our own flood risk, and how we can adapt and live safely in a climate changed world.

All of us have a role to play in reducing flood risk and tackling the climate emergency. So remember: there is more than one kind of Wall. But whatever kind you are responsible for, maintain it.