Using planning to manage coastal change

Topic resource

Planning for the Climate Crisis: A guide for local authorities

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Introduction

This topic resource provides an overview of how the planning system can support the management of coastal change - a process which is accelerating around the UK's coastline due to climate change. Predicted sea level rise will require different planning solutions ranging from large scale flood defences to the relocation of some communities.

Coastal change refers to physical alterations of the shoreline due to coastal processes such as erosion, landslips, permanent flooding, and accretion.[1] Such changes mean that the coastline is a dynamic and constantly changing environment, and any development must be carefully considered. In some places, the pace of change may threaten the long-term viability of coastal communities.

Figure 1: A road that has collapsed due to cliff fall. Source: Gabby Jeffs / TCPA.

In England, 3,500 properties are at risk of coastal erosion for the period up to 2055. Depending on our ability to defend communities in future, this could rise to as many as 10,100 properties by 2105,[2] assuming that Shoreline Management Plans (SMPs) will be delivered. These figures will be much higher if they are not.

Planning authorities on the coast therefore have a key responsibility in managing the land-use implications of coastal change. This is both to ensure that planned or proposed development is located and designed to be safe in the long term, and to ensure that land necessary to allow for flood defences, managed realignment and natural coastal processes is safeguarded for the future.

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Policy Context

In England, the National Planning Policy Framework (NPPF) sets out national planning policy approach to climate change, flooding and coastal change. It gives direction to local planning authorities on issues that development plans should address and is clear that coastal change management is one of these:

- Paragraph 20 identifies that strategic policies that set an overall strategy for development in an area should include provision for flood and coastal change management infrastructure.
- Paragraphs 162 and 163 of the NPPF also provide important direction to ensure that the planning system takes full account of flood risk and coastal change, and 'plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk (and) coastal change'.

In England, SMPs set out the expected long-term management strategy for sections of the coast over three planning timeframes: short (0 to 20 years), medium (20 to 50 years) and long (50 to 100) term.[3] The four management approaches described through the SMP are:

- ***Hold the line*****:** maintain or upgrade protection from flooding or erosion by holding the shoreline in broadly the same position.
- ***Advance the line***: actively move shoreline defences significantly seawards.
- ***Managed realignment***: change the position of the shoreline in a controlled way, such as by slowing erosion or creating areas of habitat to help manage flooding.
- ***No active intervention***: maintain or encourage a more natural coastline, which may involve discussing adaptation to the risk from flooding or erosion.[4]

In Wales, SMPs follow a similar approach to England and apply the same four policy approaches to management units along the coast. These are developed and maintained by coastal groups, who host the policy documents and mapping. The Welsh SMPs can be accessed via the Natural Resources Wales webpages.[5]

In Scotland, Shoreline Management Plans are developed on a regional basis so there is not universal coverage along the whole coast. The Scottish government has recently updated its approach through the Scottish National Adaptation Plan towards the development of Coastal Change Adaptation Plans, which will form part of the evidence base for local development plans.

Key principles

Managing coastal change through the planning system can be challenging because planners must respond to complex coastal processes. The need for coastal authorities to take a proactive approach is increasingly urgent as climate change will have a significant impact on coastal communities in future.

The following principles should be applied by coastal authorities to secure a successful approach to coastal planning:

- Take an evidence led approach, starting with SMPs where they are in place.
- Work in partnership with relevant stakeholders and agencies with responsibilities for coastal management.[6]
- Due to the complexity of coastal processes, there is uncertainty in predicting the patterns and pace of coastal change. In response, planners should take a precautionary approach to risk, both in terms of assessing risk to development over its lifetime, and the certainty of funding for flood and coastal risk management infrastructure.
- Manage the coast to harness multiple benefits - identify and embed in planning policy and coastal management approaches the opportunities to gain multiple benefits for the environment, local economies and people.
- Meaningfully engage with communities - there is no doubt that coastal change will have significant impacts on communities along rapidly changing areas of the coastline, and this must be managed sensitively. It is important that communities consulted on decisions about how coastal change will affect them in the long term.

Evidence on coastal change

The appropriate use of evidence of coastal processes and risks is the basis for successful coastal planning. Planning authorities will need to ensure they have an up-to-date understanding of coastal change and its management so they can carefully consider its implications for land-use now and in the future.

Evidence should consider the expected lifetime of development rather than the shorter period covering the development plan. For residential development, the lifetime of development should be at least 100 years, and for development such as major infrastructure it may be much longer.[7] SMPs provide the starting point for evidence on coastal change along the coastline in England and Wales.

SMPs are non-statutory documents. The aim is for them to be used by local authority planners, coastal managers, risk management authorities, and the public to understand the long-term coastal management approach for their areas. They are used in local planning to designate Coastal Change Management Areas, identify land that may need to be safeguarded in future, inform development plan policy, as well as to guide coastal management decisions (for example the building and maintaining of sea defences). They also guide decisions by the Environment Agency on how and where the national budget for managing flood and coastal risk is spent.

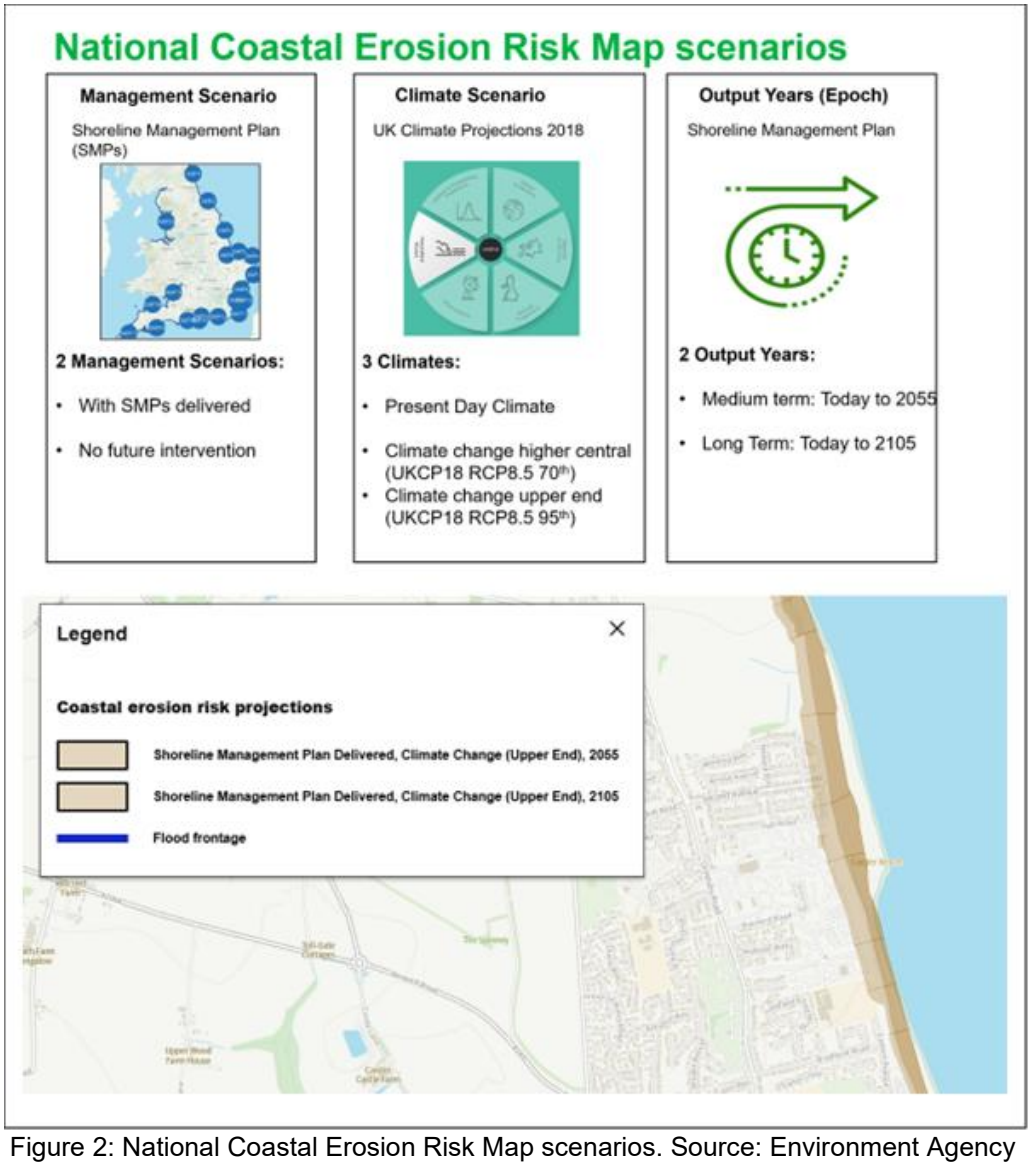

Figure 2: National Coastal Erosion Risk Map scenarios. Source: Environment Agency

Local authorities should also draw on other local evidence to understand the approach to coastal management in their area. For example, River Basin Management Plans will include important information about how river basins, which often include parts of the coastline, are being managed to reduce flood risk.

Understanding proposals for flood risk management infrastructure investment will also support planners to understand the confidence with which they expect coastal communities to be protected by flood defences in future. Local Flood Risk Management Plans and infrastructure plans may therefore be important sources of evidence for understanding risk on the coast.

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Good practice for plan making

Development plans should support the management of coastal change, and local authorities should consider applying the following policy approaches:

- Make sure that development plan policies and allocations align with and support the long-term management approach for the coast, as set out in SMPs or climate adaptation plans. Projections of the impact of climate change should be used to establish the significance of projected coastal change.
- Identify the coastal management infrastructure that will be required to enable development in the plan area, and whether contributions from development will be expected to secure its delivery.
- Designate Coastal Change Management Areas (CCMAs) in any area likely to be affected by physical change to the coast, using the Environment Agency's national coastal erosion risk map (NCERM) and other local evidence to define their geographical extent.

There are broadly two purposes of CCMAS:
    - to identify areas at risk of coastal change and direct inappropriate development away from these areas, and
    - to identify existing development (for example homes and businesses) and infrastructure (for example, roads, railways, landfills), within CCMAs that may need to be relocated.
- Planning authorities should make provision through policies and allocations for replacement infrastructure and the relocation or roll-back of any existing development and infrastructure that may be unsustainable in the long-term. This might involve:
    - Setting criteria for replacing existing development which is at risk of being lost due to coastal change.
    - Allocating land in the development plan for the relocation of at-risk assets.
- Use policy to identify the type of development that is deemed appropriate in CCMAs, and any conditions that may be required (for example, in some areas only temporary development may be appropriate).
- Consider setting requirements for applicants to provide a risk assessment for development in areas at risk of coastal change, such as a Coastal Change Vulnerability Assessment.
- Safeguard from development, land that is likely to be needed for future coastal risk management infrastructure, including managed realignment.

Box 1: Case study - East Riding Coastal Change Management Area

To tackle coastal erosion and sea level rise, the 2023 East Riding Local Plan update addresses coastal management with Policy ENV6 on Managing Environmental Hazards, designating a Coastal Change Management Area (CCMA).

Policy ENV6 sets out clear guidelines for managing development within the CCMA, restricting it to temporary developments that contribute to the local economy and support relocation or rollback initiatives. The CCMA was established using data from the Shoreline Management Plan long-term risk assessment and the Council's ongoing monitoring program. It encompasses all sections of the coastline that are not protected by flood and coastal erosion risk management infrastructure.

Link: **Managing environmental hazards - Local Plan Strategy**
Authors: East Riding of Yorkshire Council
Year: 2023

Good practice for development management

Development management is a crucial gateway to ensure that inappropriate development on areas of the coast that are vulnerable to erosion and other coastal processes is not permitted. Planners should:

- Ensure that development proposals align with the long-term management strategy for the coast, as set out in SMPs.
- Use coastal erosion risk mapping[8] and data to understand potential risks to development proposals.
- Engage early with applicants to make them aware of potential risk in coastal areas and ensure they have access to relevant mapping and information.
- Make sure that local development management checklists include the requirement for applications on the coast to comply with policy, for example by explaining the circumstances where a coastal change vulnerability assessment is required.
- Where policies for rollback and relocation, or designation of CCMAs are in place, ensure these are strictly complied with.
- Ensure that development does not undermine strategic objectives for the coast including the creation and maintenance of a continuous footpath, and the need to preserve the character of the coastal environment.
- Refuse applications that cannot demonstrate they will be safe for the lifetime of the development.
- Refuse applications for development that would unacceptably impact coastal change.

Figure 3: Wooden breakers on the coast in North Norfolk. Source: TCPA

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Box 2: Case study - Managing rollback in North Norfolk

Much of North Norfolk's 45 miles of coastline is comprised of low-lying sand dunes and cliffs of sandstone, clays and other soft materials, meaning it is highly vulnerable to erosion and storm surges. As a result, coastal settlements in the district find themselves at the frontline of climate change adaptation in England, and some communities are engaged in processes of rollback and relocation as properties are being lost to the sea.

North Norfolk's Local Plan contains policies for managing the impacts of coastal erosion, including the rollback of existing development in areas where the SMP does not have a 'hold the line' policy. Policy EN12 focuses on relocation and replacement of developments affected by coastal erosion risk. It permits the relocation of community facilities, commercial and business uses, and dwellings that are at risk of erosion within a specified timeframe (50 years for community facilities and commercial uses, 20 years for dwellings). The new development must be situated beyond the coastal erosion constraint area. Additionally, the site of the replaced development must be cleared and managed for environmental or community benefit.

Link: North Norfolk Local Plan
Authors: North Norfolk Council
Year: 2008

Further Resources

Dynamic Coast

A project set up to provide the strategic evidence base on the extent of coastal erosion in Scotland. The website hosts a range of resources and guidance documents, including on developing a Coastal Change Adaptation Plan. https://www.dynamiccoast.com/resources

E-learning on planning for flood risk and coastal change (England)

The Town & Country Planning Association and the Environment Agency are working in partnership to support planners to develop their skills and knowledge on key planning and flood and coastal risk issues. A suite of online training is available, including modules that go into more detail on planning for coastal change. https://learning.tcpa.org.uk

Guidance on Coastal Management

As part of a wider 'interface project' to explore coastal planning in the north west of England and North Wales, a series of guidance documents has been produced. These cover a range of topics of relevance to coastal planning authorities. They can be accessed from the My Coastline website here: https://www.mycoastline.org.uk/shoreline-management-plans/

Shoreline Management Plan Explorer

Aimed at operating authorities and planners, SMPs can inform sustainable coastal management by setting out preferred approaches, such as holding the line, managed realignment, or no active intervention, for distinct coastal sections over short-, medium-, and long-term horizons. For England, they can be accessed from the Shoreline Management Plan Explorer where you can also view the new NCERM data alongside SMPs: https://environment.data.gov.uk/shoreline-planning. For Wales, SMPs can be accessed on Natural Resources Wales Shoreline Management Plans webpage.

References

[1] *Flooding and coastal change briefing: Findings from the third UK Climate Change Risk Assessment (CCRA3) Evidence Report 2021*. UK Climate Risk, 2021. https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA3-Briefing-Flooding-and-Coastal-Change.pdf

[2] *National assessment of flood and coastal erosion risk in England 2024*. Environment Agency, 2024. https://www.gov.uk/government/publications/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024

[3] In England, SMPs are hosted on the SMP Explorer web portal, which allows users to download SMP documents and view SMP policies on a map.

[4] *Shoreline Management Plans.* Environment Agency, January 2024. https://www.gov.uk/guidance/shoreline-management-plans

[5] *Shoreline Management Plans.* Natural Resources Wales. https://naturalresources.wales/flooding/managing-flood-risk/shoreline-management-plans/?lang=en

[6] Including the Environment Agency in England, Natural Resources Wales in Wales, and the Scottish Environmental Protection Agency in Scotland.

[7] *Planning Practice Guidance Flood Risk and Coastal Change.* MHCLG, 2025 (Para 006). https://www.gov.uk/guidance/flood-risk-and-coastal-change

[8] In England, the National Flood and Coastal Erosion Risk Mapping is available from: https://www.gov.uk/guidance/updates-to-national-flood-and-coastal-erosion-risk-information

Acknowledgments

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Cover image: Coastal erosion in north Cornwall. Source: TCPA
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