What do Shoreline Management Plans envisage the Dorset coast looking like in the future?

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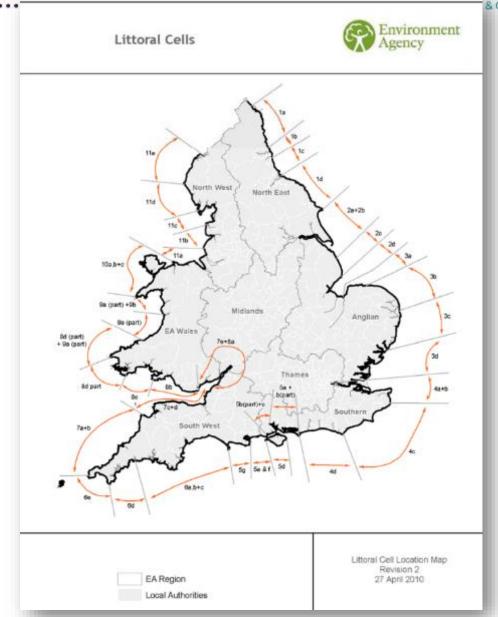








- What is the aim of a SMP?
 - To provide the basis for sustainable coastal defence policies within a coastal sediment cell.
- The key components and their interrelationships considered are:
 - the coastal processes,
 - the coastal defences,
 - land use and the human and built environment,
 - the natural environment.
- Shoreline Management Planning is ongoing.







- A guiding principle is that the SMP needs to define a long term sustainable plan for coastal defence!
 - The Plan provides the long term vision, considering the interactions and implications across the whole SMP area.
 - The 'policies' are the means of achieving this Plan at the local level over discrete timescales.
 - SMP policies and policy options set the direction of travel for a more sustainable coast but <u>do not</u> guarantee funding or delivery.
 - Any scheme or coastal works are expected to be in accordance with the relevant SMP in order to be considered for approval and funding.



Long term policies to manage coastal flooding & erosion risk.



Preferred environmentally and economically viable approaches to address risks are identified.



Flooding and Coastal Works are designed to reduce risks to people and assets.

Delivery is dependent on securing the required partnership funding.



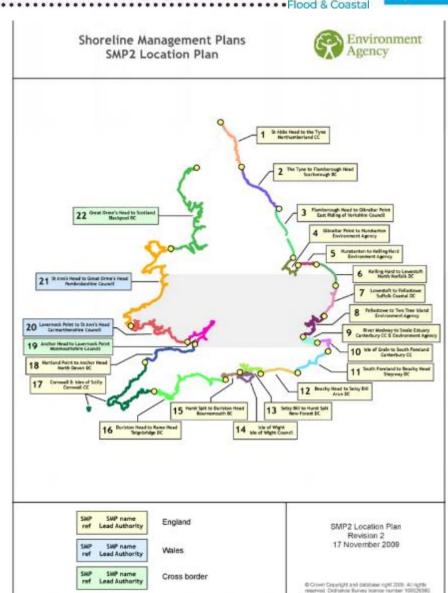


Key aspects of SMPs:

- Policy is set over a 100 year planning horizon
- Policy defined in each of 3 epochs:
 - 0-20 years (2005-2025)
 - 20-50 years (2025-2055)
 - 50-100 years (2055-2105).
- Define one of 4 policies:
 - No Active Intervention (NAI)
 - Managed Realignment (MR)
 - Hold the Line (HTL)
 - Advance the Line (ATL).

SMP2s relevant to Dorset adopted in 2011:

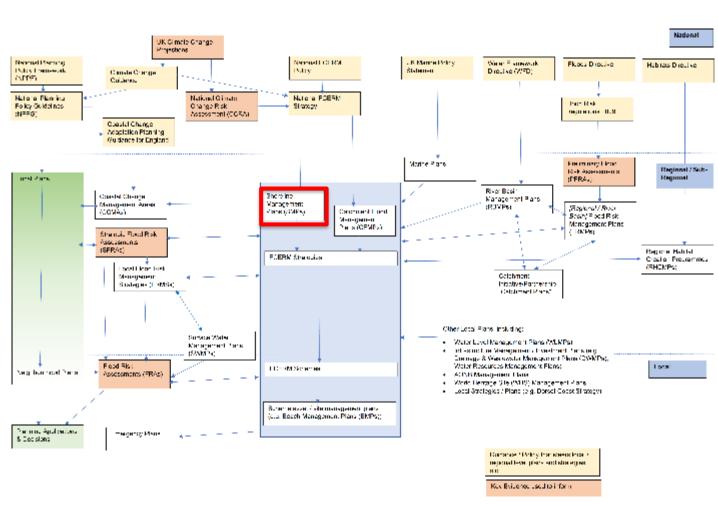
- Poole & Christchurch Bays SMP2 (Durlston Head to Hurst Spit).
- South Devon & Dorset SMP2 (Durlston Head to Rame Head).







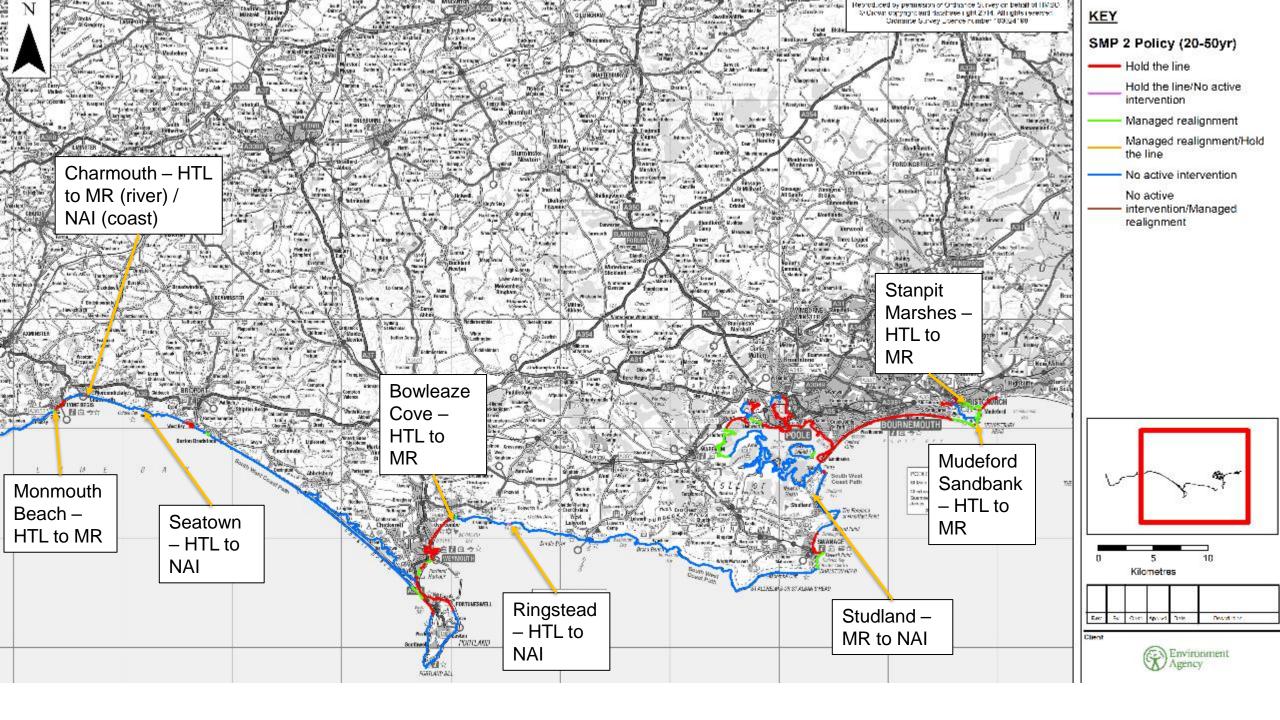
- A SMP is a non-statutory policy document for coastal defence management planning only.
- It is not an Integrated Coastal Zone Management (ICZM) plan.
- SMP policies have implications for a large number of people / sectors.
- SMPs are informed by, and intended to inform wider strategic planning, including:
 - Local Plans (inc. Neighbourhood Plans)
 - Marine Plans
 - Habitat Creation & Restoration Plans
 - Local Nature Recovery Strategies
 - Infrastructure Plans.

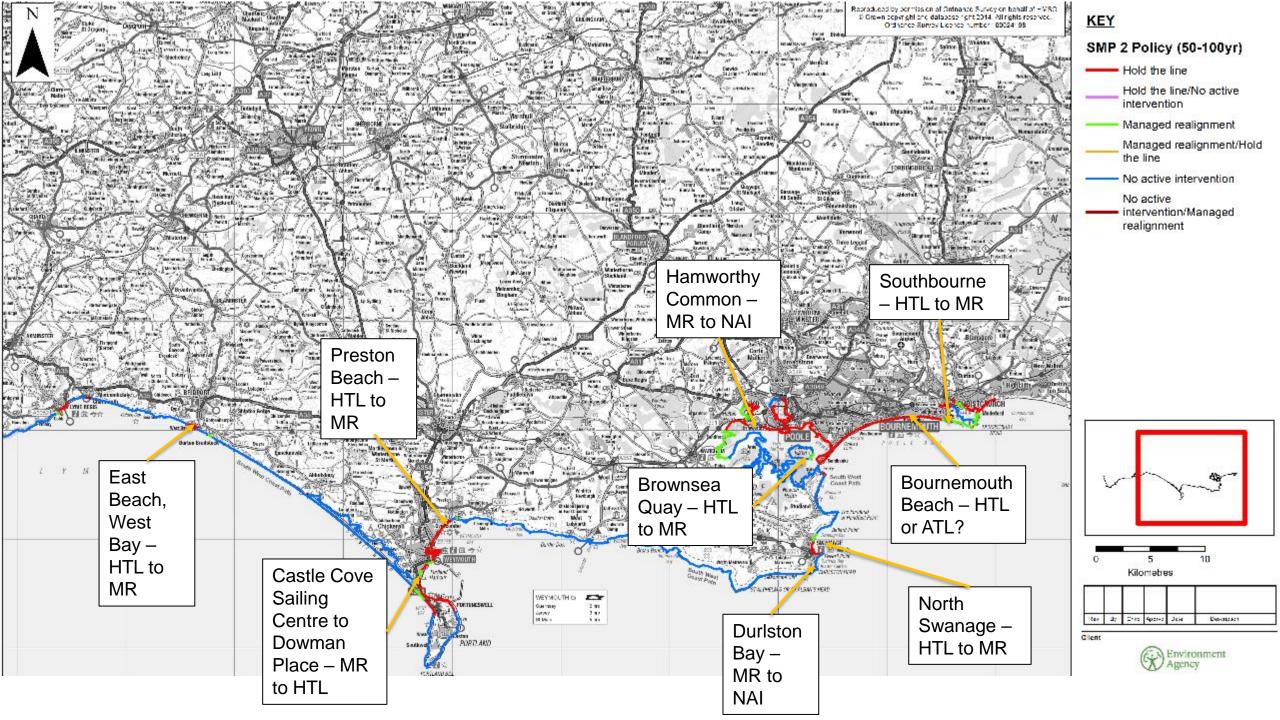


What do the SMPs envisage for the Dorset coast?





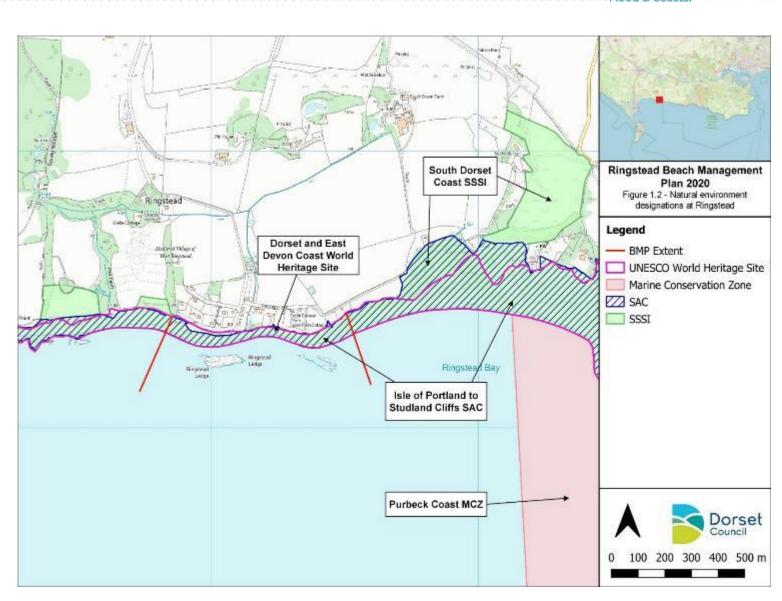






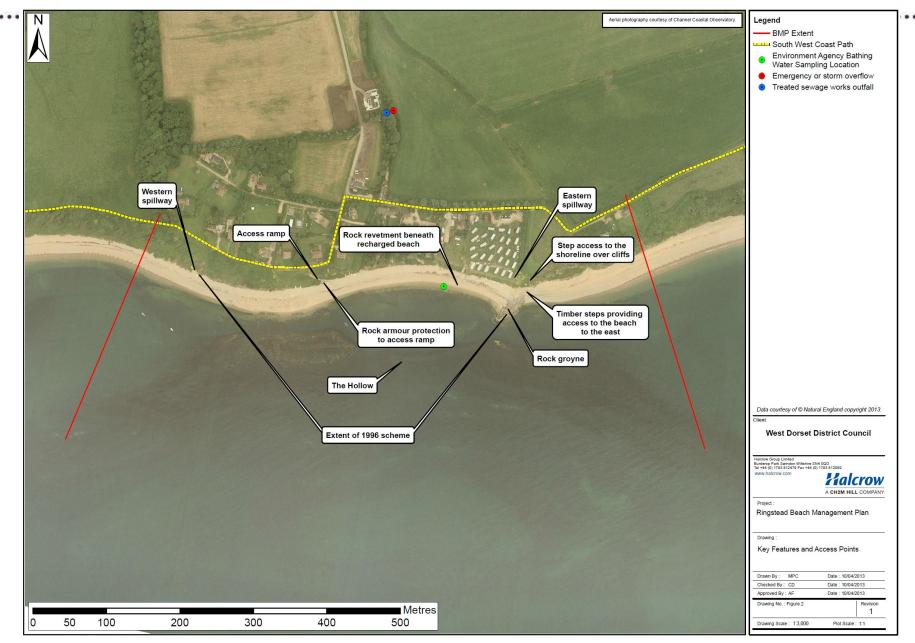


- Policy unit 5g10 Ringstead Bay (Defended length)
 - Maintain the short length of rock revetment and rock groyne built in 1996 for as long as technically and economically viable.
 - As these reach the end of their design life, they would not be replaced.
 - Maintenance would be gradually withdrawn.
 - An adaptation plan needs to be developed to prepare the area for this change.



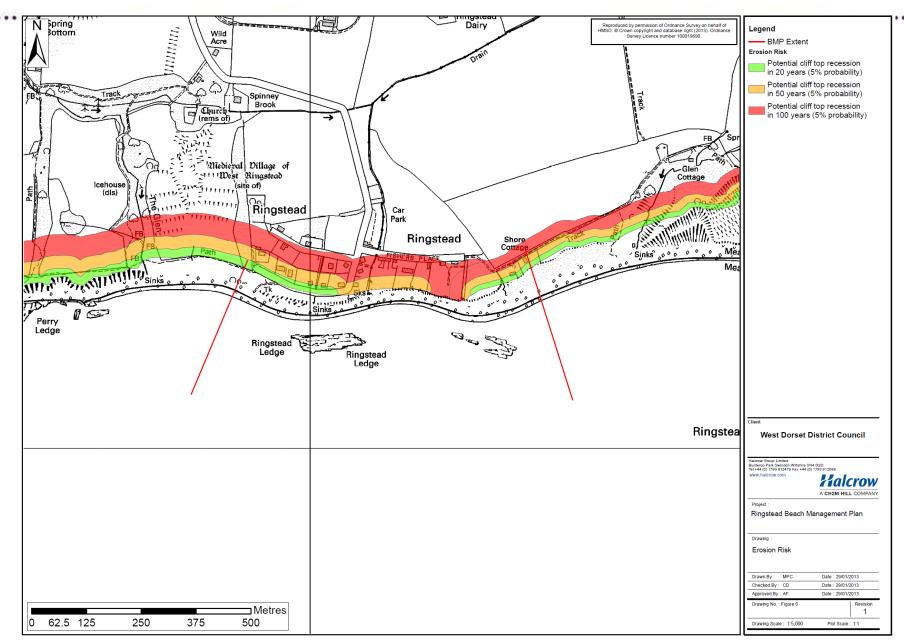
Key features along the Ringstead frontage constructed as part of the 1996 scheme.





Erosion risk at Ringstead (No Active Intervention scenario)





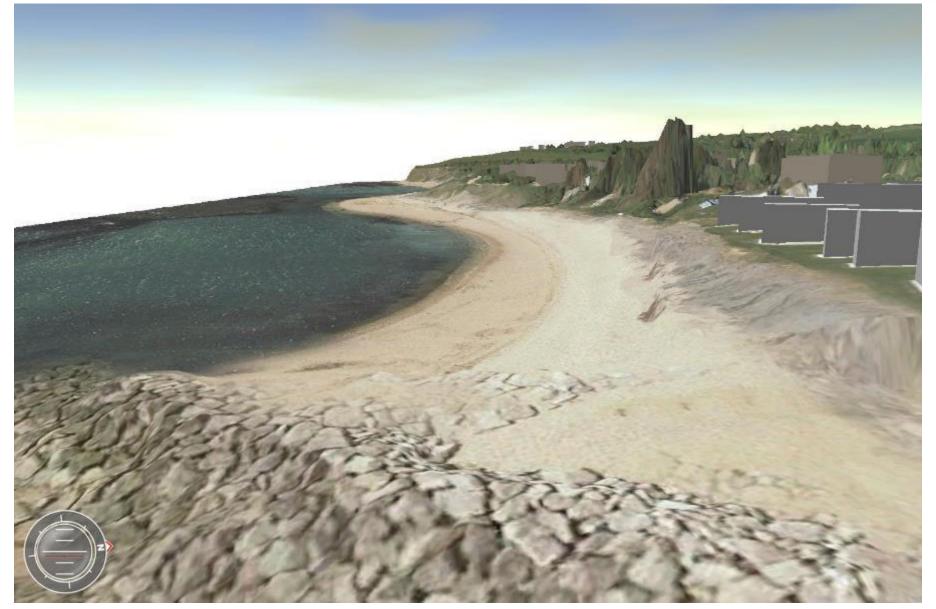






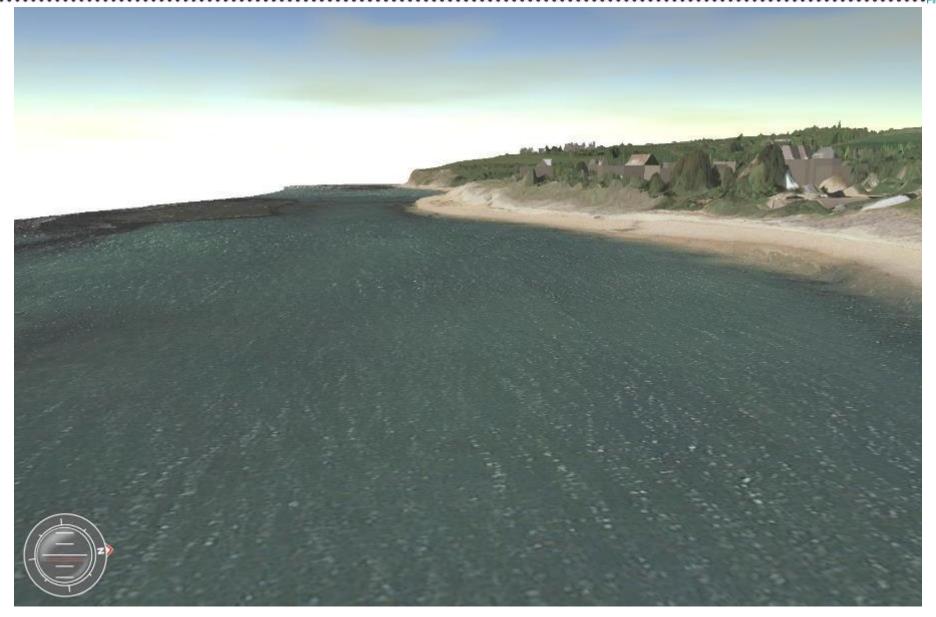






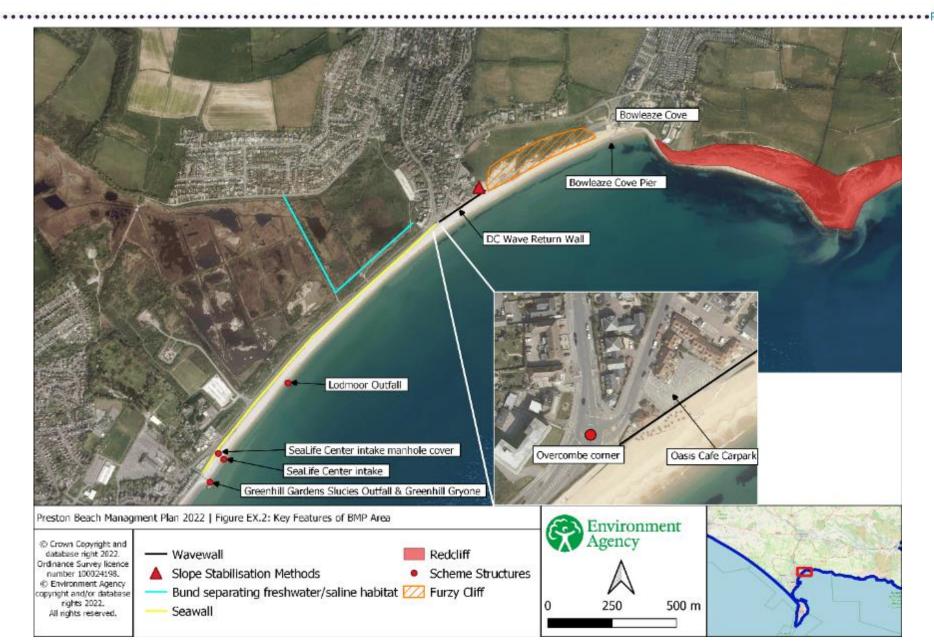






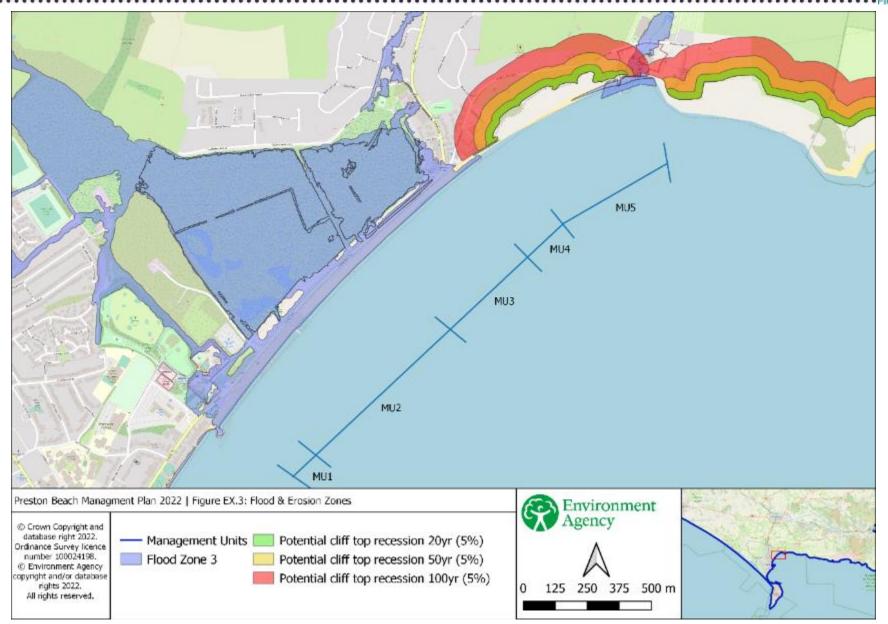
















5g12	Redcliff Point to Bowleaze Cove (Gabions)	Present	No Active Intervention	Do not Defend
		Intermediate	No Active Intervention	Do not Defend
		Target	No Active Intervention	Do not Defend
5g13	Bowleaze Cove (Gabions) to Furzy Cliff	Present	Hold the Line	Maintain/Replace
		Intermediate	Managed Realignment	Set back Defence
		Target	Hold the Line	Maintain/Replace
5g14	Furzy Cliff	Present	No Active Intervention	Do not Defend
		Intermediate	No Active Intervention	Do not Defend
		Target	No Active Intervention	Do not Defend
5g15	Furzy Cliff to Preston Beach (Rock Groyne)	Present	Hold the Line	Maintain/Replace
		Intermediate	Hold the Line	Maintain/Replace
		Target	Managed Realignment	Set back Defence



























- SMPs set a long-term vision for sustainable coastal defence management and policies for achieving the vision over a 100-year planning horizon, considering the interactions and implications across the whole SMP area.
- In places, the SMP policy will change over time, with implications for people, property, infrastructure and the environment.
 - But coastal change will occur everywhere (even where the policy is HTL long-term).



response to level of urgency and lead-time required

- The consequences of these policy changes, and coastal change more broadly, require pro-active not reactive planning.
- The requires working across sectors to produce adaptation or transition plans.
- Adaptation Pathways are a key part of giving clarity over how long we have to be pro-active.

From Research to Assess the Economics of Coastal Change Management in England and to Determine Potential Pathways for a Sample of Exposed Communities (Jacobs, 2018). For the Committee on Climate Change

Policy Unit	Management Actions	Monitoring	Epoch 1 (ends 2020/2030)	Epoch 2) (ends 2040/2060)	Epoch 3 (ends 2085/2100)	Epoch 4 (beyond 2100)	Legend Pathways			
5g14	No active intervention at the undefended Furzy cliffs.	۸	⊙							
	Relocate cliff top facilities and properties in	А				 	—	Option pathway		
	advance of these being lost (or at least access to them being lost via loss of road).	7				<u> </u>	→	Continuation		
	Provide alternative to cliff top road for access to unaffected assets PU 5g13 in	А					-	Option deemed unsustainable past this poin		
	advance of the cliff top road being lost.					-	_	Planning pathway		
Sg15	Maintain the current defences to manage flood risk and outflanking at the south- western end of Furzy Cliff (Overcombe).	А, В, С		@ @				Policy = No Active Intervention		
	Proactive managed realignment with set-	A, B, C				-		Policy = Hold the Line		
	back embankment defences to protect	A, b, C			1		_	Policy = Managed Realignment		
	property and other assets on fringes of RSPB Lodmoor reserve against flood risk.				1		_	Policy = Relocation		
	The road would be closed and the current					 	Monitorin	·B		
	defence line would be actively decommissioned and breached.						А	Erosion/accretion/ morphological change monitoring		
	Manage impacts on property, businesses and infrastructure as adjacent Furzy Cliff retreats landwards.						В	Flooding (frequency/severity) monitoring		
	As above, but allow current defence line to	А, В					C	Asset condition monitoring		
	degrade over time without maintenance. Manage impacts on property, businesses					 	Trigger Le	Trigger Levels		
	and infrastructure as adjacent Furzy Cliff retreats landwards.						1	Cliff recedes past a set trigger line Significant cliff fall		
							Beach levels drop and defences deteriorate			
Engagement activity						2	past set condition grade. Or significant failure of the defences which			
	Raise public awareness Consultation with the public and							result in a breach.		
	stakeholders			<u> </u>			- 3	Frequency of overtopping exceeds tolerable		
and use	planning activity							threshold.		
	Plan defence/protection of critical assets									
	Impose land use restrictions in coastal									
	erosion and flood zone						APPLYING	G UNCERTAINTY ZONES		
	Preparation to relocate community/assets at risk							Proactive adaptation possible Reactive adaptat		
nvironi	mental/habitat activity						TRIGGER			
	Preserve/conserve habitats									
	Clean up of contaminated land in coastal erosion and flood zone							\rightarrow		
	Create compensatory habitat							DECISION-PC		





- The planning system has a key role to play in this.
- Statutory Local Plans need to reflect the non-statutory SMP policies.
- This can be done by defining Coastal Change Management Areas (CCMAs) or Coastal Vulnerability Zones.
- These aim to ensure development is not occurring in areas of expected change.

Coastal Erosion and Seacliff Stability

5.24 The National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England (2020) recognises that England has a long history of flooding and coastal change. Climate change means that these events will increase in frequency and as a result, the way we manage the risks will need to change too. Along the coastline, the risks are:

- flooding from tides, storm surges and wave overtopping of defences
- coastal erosion of undefended cliffs exposed to action by waves and tides and the loss of beach sediment in front of seawalls
- coastal instability, where the cliffs are defended at the base from erosion by waves and tides but can still experience landslips and falls due to the impact of drainage and groundwater within the cliff slopes.

Shoreline Management Plans (SMPs)

5.25 SMPs are high-level non-statutory planning documents which provide a broad scale assessment of the risk associated with coastal flooding and erosion and present a long-term policy framework to reduce these risks to people and the developed, historic, and natural environment in a sustainable manner. Whilst SMPs set out the long-term sustainable coastal flood and erosion risk management vision and policy to achieve it, SMPs do not guarantee funding to deliver all policies in all areas.

5.26 The BCP area is covered by the Hurst Spit to Durlston Head SMP which is currently under review. The following strategies look in more detail at sub-areas of the SMP and develop the preferred approach to implementing the SMP vision and policies:

- the Poole Bay, Poole Harbour and Wareham FCERM Strategy (2014) demonstrates how we will manage tidal flood and erosion risks in and around the Bournemouth area and Poole Harbour over the next 100 years with emphasis on the years up to 2030; and
- the emerging Christchurch Bay and Harbour FCERM Strategy is currently under preparation and once developed will set out a strategy for managing flood risk in the Christchurch area.

Coastal Change Management Areas

5.27 The planning system has a key role in managing the risks posed by present and future coastal flooding and erosion. The NPPF requires that local plans reduce the risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast. The local plan can identify a Coastal Change Management Area for an area likely to be affected by physical changes to the coast' supported by the NPPF of what development should and should not be permitted within Coastal Change Management Areas.

5.28 We have identified 3 Coastal Change Management Areas: Rockley Park, Holes Bay and Hengistbury Head which correspond with the policy areas in the shoreline management plan where managed realignment or no active intervention is proposed during the plan period as shown in Figure 5.2 and on the Policies Map. In accordance with national guidance,



Figure 5.2 - Our Coastal Change Management Areas



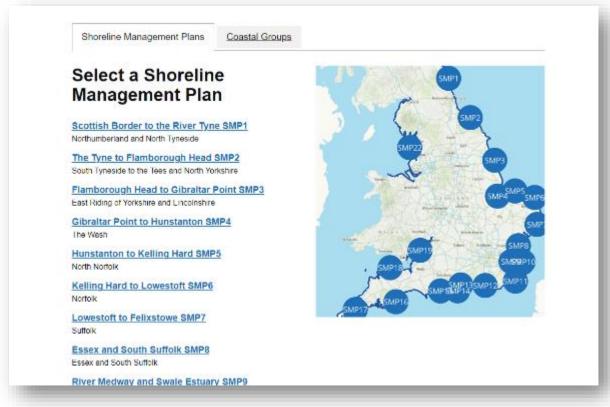
Figure 5.3 - Our Coastal Vulnerability Zone



Figure 5.4 – Cliff and Chine Stability Consultation Zone

For more information....

To find out more about the SMPs covering the Dorset coast, visit the new national SMP-Explorer website at https://environment.data.gov.uk/shoreline-planning.



SOUTH WEST Flood & Coastal



Contact us: coastal@bcpcouncil.gov.uk

For more information on current and past projects, and other flood & coastal information, visit our website: https://twobays.net/