

flood and coastal erosion risk management strategy

Welcome!

We would like to explain:

- What this strategy is and how it fits into earlier and future studies
- The process we use to get to the best solution
- The future flood risk and why we need to plan ahead now
- What might happen if we stopped what we currently do.

We would also like to understand more of your concerns so that we can try to include these in our decision making.

We are carrying out the strategy in partnership with the local authorities of Bournemouth, Poole and Purbeck, as well as the Poole Harbour Commissioners and Natural England. This exhibition is part of a series of consultation events which we have planned for the public.

Introduction

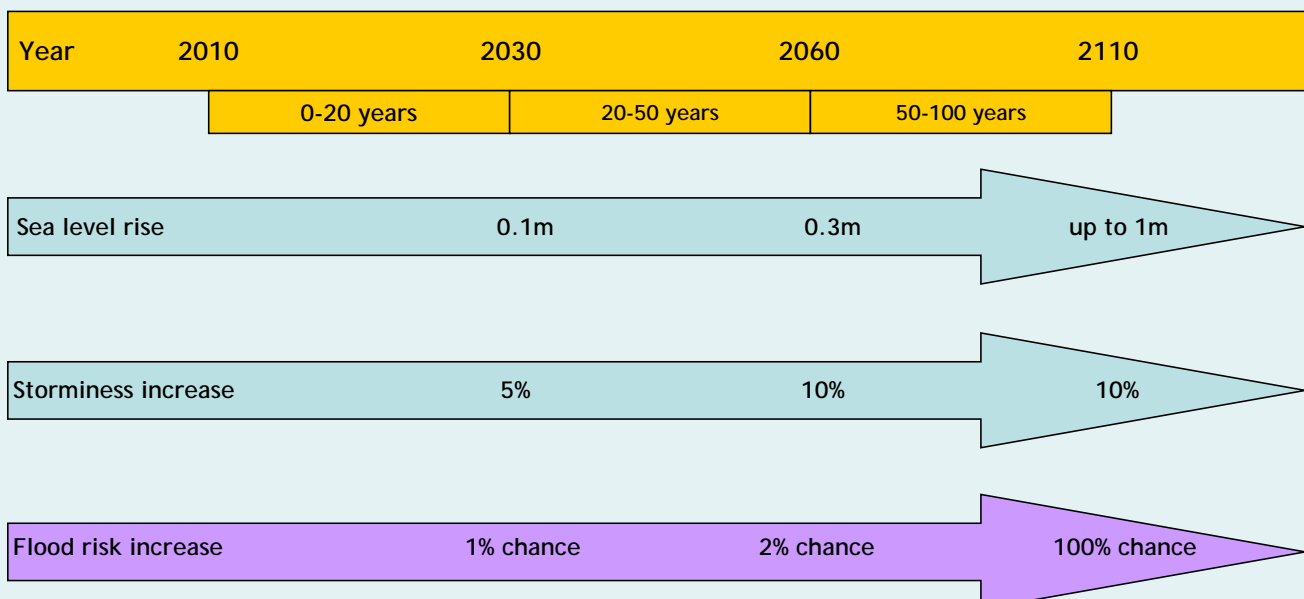
Climate change guidance estimates up to 1 metre of sea level rise over the next century as well as increased storminess. This will significantly affect people, property and wildlife with increased frequency and consequences of flooding and erosion.

We want to reduce the flood and coastal erosion risk to people and property. We also have a legal duty to replace the designated habitat that will be lost due to sea level rise, where our defences prevent natural succession (coastal squeeze).

We are developing our plans to manage the tidal flood and erosion risks around Poole Harbour and the surrounding bays over the next 100 years. This plan is called the Poole Bay, Poole Harbour and Wareham Flood and Coastal Erosion Risk Management Strategy. We are doing this to work out the best way to reduce the risk for communities and the environment into the future as sea levels rise.

The strategy follows on from the recent Poole and Christchurch Bays Shoreline Management Plan 2. The strategy is checking the findings of this study and developing details of how the SMP2 will be implemented.

Indicative climate change and impact on flood risk



where? what? how the strategy fits in

What area does the strategy cover?

The study area shown below covers the length of coast from Hengistbury Head to Durlston Head. The upstream limit of the strategy is the tidal floodplain in Poole Harbour and the tidal limits of the rivers Sherford, Frome, Piddle and Corfe.

What will the strategy do?

Our strategy will:

- define a 100 year investment plan for the Environment Agency and local authorities to reduce the tidal flood and coastal erosion risk to local communities
- show suggested lines for any proposed changes to defences
- provide information to utility companies to protect important infrastructure and to planning authorities to control development in inappropriate areas
- show suggested places where we should create new inter-tidal wildlife habitats to replace losses caused by rising sea levels.

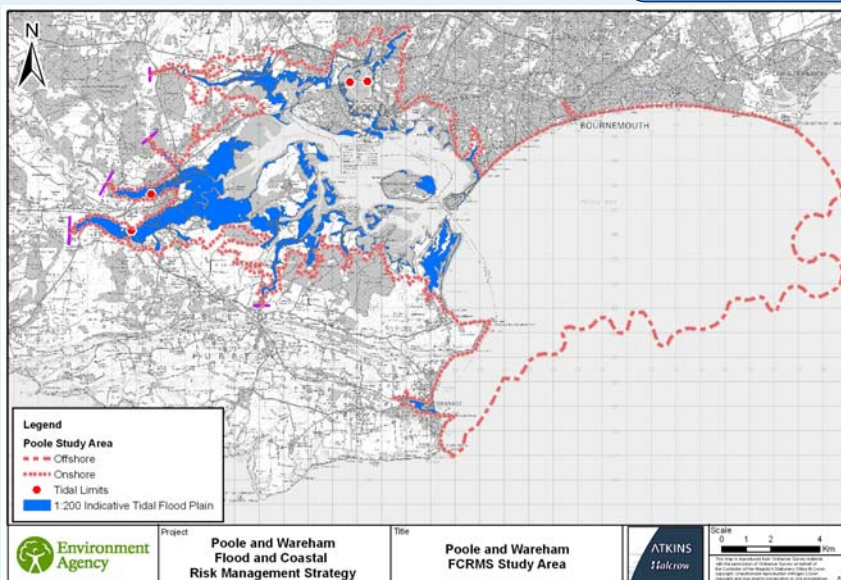
In meeting these objectives we will take into consideration the impact on people and property, and the environment around Poole Harbour and surrounding bays, including the cost of implementing any measures.

How the strategy fits with other studies

Our strategy fits within the planning hierarchy for flood and coastal risk management. At the broadest level national plans set out funding and investment for a range of public bodies.

At the regional level Shoreline Management Plans and Catchment Flood Management Plans set out large-scale assessments of coastlines and rivers, identify the risks to the developed, historic and natural environments as the coast changes, and define policy framework to manage the risks in a sustainable manner.

The strategy sits underneath, and is guided by, these two levels of planning. Once the strategy is completed, more detailed projects at a local scale can happen on the ground.



Borough of Poole Flood Risk Management Strategy 2011
 This study provides a strategic review of flood risk to 100 years beyond the forthcoming Core Strategy (2126). It provides a robust and defensible long term framework to inform decisions on flood risk issues relating to planning policy in Poole. The development of key sites in the borough can help in the approach of obtaining contributions towards future improved flood defences. Our strategy takes account of this work.

the strategy process

The strategy process

The diagram below illustrates the strategy process. We are at the beginning where we have the policies from the Poole and Christchurch Bays Shoreline Management Plan 2 (SMP 2).

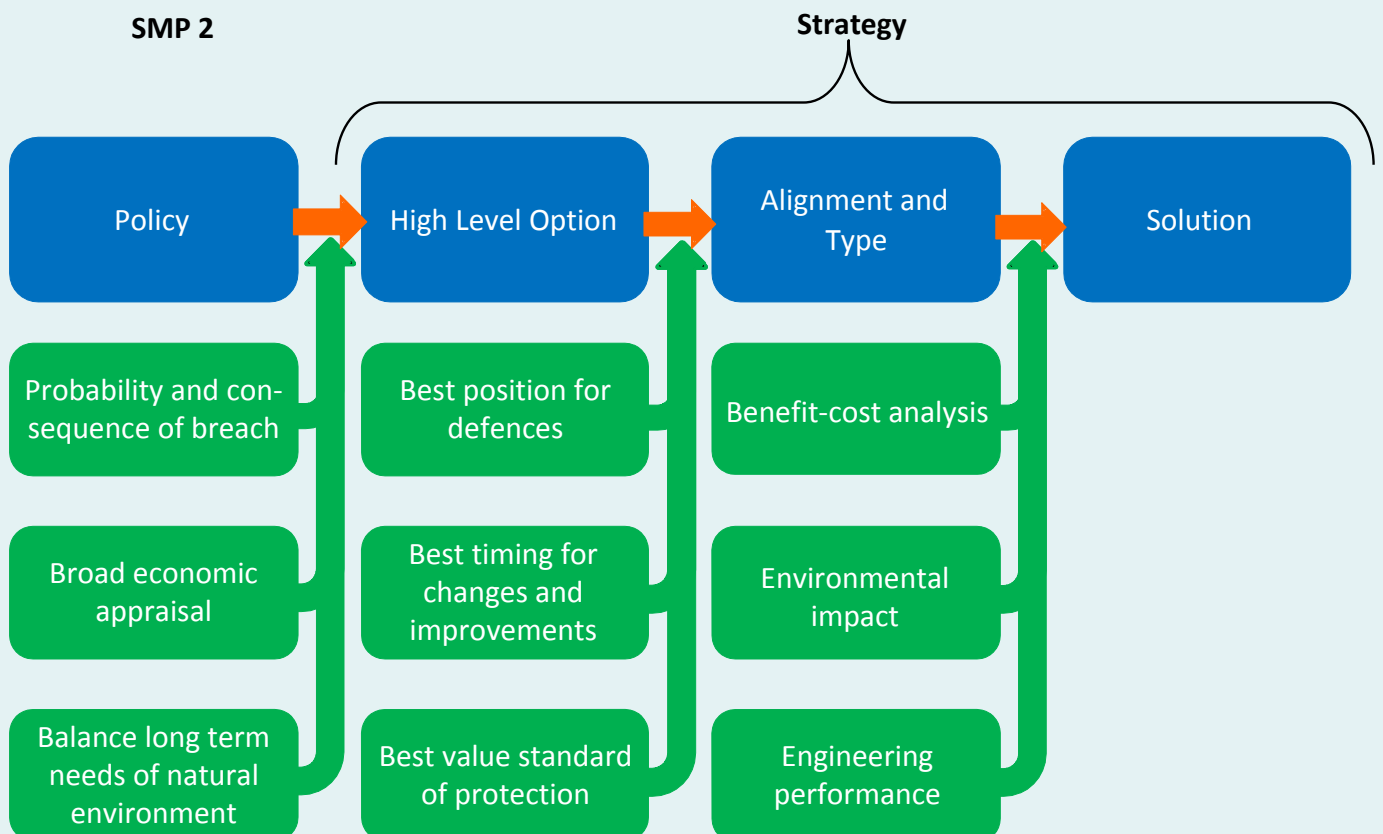
SMP2 policies look at how to manage the shoreline sustainably. They give some certainty for landowners, residents and businesses as to how the coast will be managed during the next 100 years. This helps them plan ahead and decide about investments, homes, development and the management of their resources. They are explained further on board 5.

High level options look at the level of protection from flood and erosion risk to be provided to people and property (i.e. less, the same or better). As part of this, they refer to flood cells or units rather than just the shoreline and coastal defences.

Alignment and types take the high level options and develop these so that the general location and type of flood defence is defined. The alignment and type stage sets out how specific lengths of flood defence will be managed over the next 100 years.

The solution stage is the last stage. The solution stage develops the alignment and types further to define when flood and coastal defences need to be improved, and what the improvements would specifically be.

Potential solutions include for example flood banks and walls, and managed retreat. We have shown what some of these potential solutions might look like on the next board.



potential solutions

Introduction

There are several ways we can reduce flood risk and control erosion. We show examples below which could be used either individually or together.

Flood forecasting and warning

Flood forecasting and warning systems can be developed to provide forewarning of storms and give communities time to prepare. For example, this has been used at Wareham Quay.



Foreshore management

Management of the foreshore can be achieved by beach recharge and recycling, groynes and breakwaters. A local example is at Bournemouth beach where groynes and beach recharge are used.



Embankments

Earth embankments are a common method of providing flood risk management for locations that are sheltered from waves. Local examples are the embankments at Hamworthy Park.



Seawalls

For locations that are exposed to waves, harder defences are often more appropriate. Harder defences can include rock armouring, concrete revetments and seawalls. A local example is the promenade and seawall at Swanage.



SMP2 policy and some public comments

This plan shows the SMP2 preferred policies and some of the public comments that have been received about them. We will try and take all comments into account in suggesting solutions in our strategy, but there are difficult decisions to make and not every view can be accommodated.

Please add any further comments you have to the six detailed maps on the tables.

Policy around Wareham Banks and Lytchett Bay

The area from Ham Common around to the Arne Peninsula provides the greatest opportunity for adjustment of defences, allowing improvement and adaptation of the vital nature conservation interest of Poole Harbour, in line with sea level rise. This forms a primary intent for the area. The intent, however, is also to continue to manage key areas of the built environment, specifically areas of Turlin Moor, the railway line and the centres of Wareham and Stoborough. Along the Ham Common frontage the aim of the plan is to increasingly manage defences to allow a more natural response of the coast in keeping with the designated value of the area. This needs to be developed in conjunction with the owners of the Holiday Park. In the Wareham area, despite constraints imposed by agreements for continued defence, the intent would be to allow increased inundation of land currently defended, with the aim to restore a more naturally functioning system. This approach is being examined in more detail through the Environment Agency's emerging strategy, subject to the Harbour flows. There would still be the intent to defend core areas of Wareham and Stoborough and to support adaption of amenity resources between the two rivers. The aim would be to maintain defence to the railways but this should be undertaken in a manner to minimise impact on the natural development of intertidal habitat in the area. There is recognised to be a potential issue of contamination in this area around Holton Heath and this needs to be examined further.

Some public comments relevant to Wareham

"The tidal dynamics of Poole Harbour and the two rivers are unique and extremely complex. Those dynamics will change as sea levels rise, and particularly as the SMP comes into effect all around the harbour and adjacent coastline."

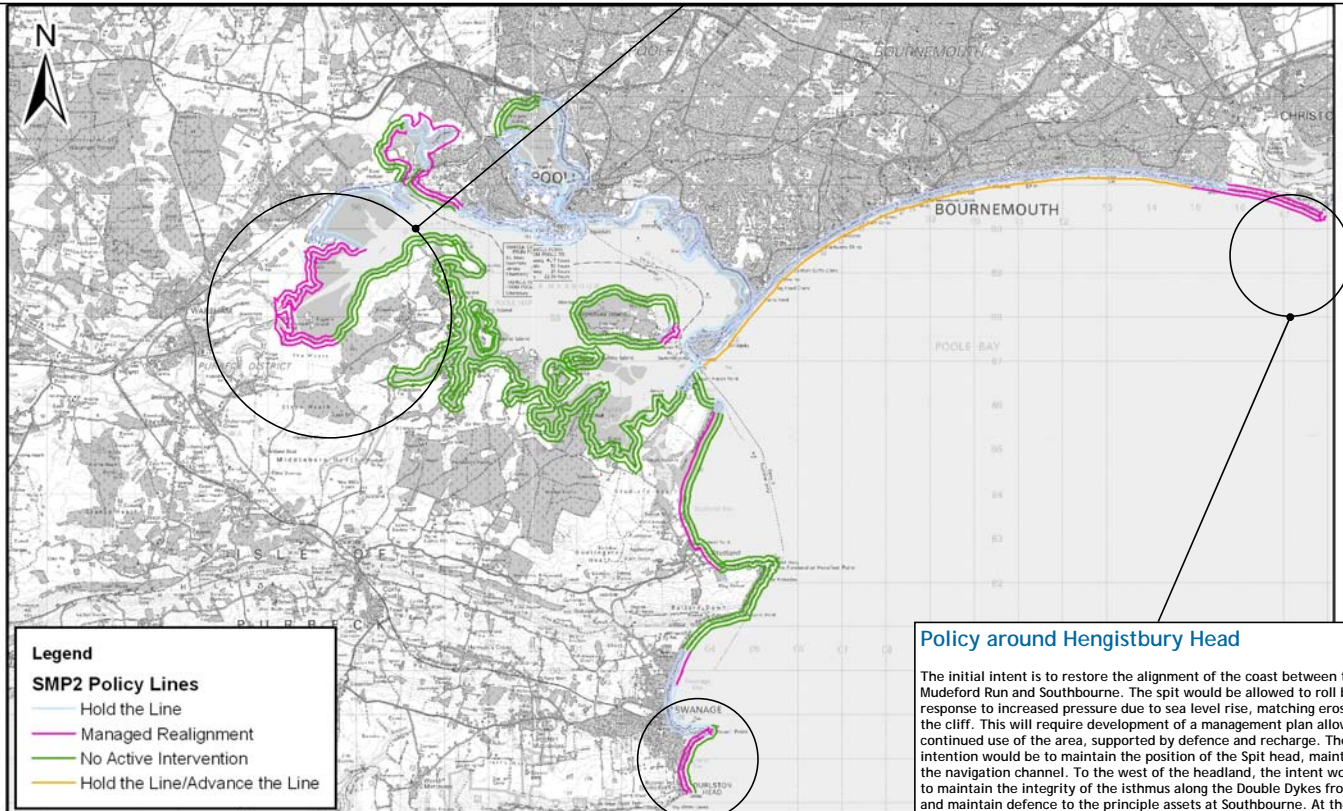
"We support the conservation of wildlife and environment and this policy will promote these ideals but once again there are houses that need to be protected before wildlife. Fortunately these are mainly protected by the railway barrier but a few are beyond the protective line and they must be helped to avoid flooding."

"It is important to recognise the rights of the house owners to keep their homes safe from flooding or devaluation in the housing market. Any actions or non-actions must be made with this in mind. We support improvements to the environment but not at the cost of homeowners property."

Some public comments relevant to Lytchett Bay

"A large number of houses are on flood plain levels and will be at risk if managed realignment is not practised from the very beginning. I cannot see the Environment Agency or the government giving compensation to householders who lose the value of their properties because of their lack of action in protection. Houses were built here because there are flood barriers and it was assumed they would always be maintained to protect the built environment."

"There is mention of the Sherford River and the tidal floodbanks that run along side the river and the tidal floodbanks in other areas around Lytchett Bay. However with the proposed 'no active intervention' the tidal floodbanks would be allowed to break down and disappear but we do not know if that would increase the flood risk."



Policy around Hengistbury Head

The initial intent is to restore the alignment of the coast between the Mudeford Run and Southbourne. The spit would be allowed to roll back in response to increased pressure due to sea level rise, matching erosion of the cliff. This will require development of a management plan allowing continued use of the area, supported by defence and recharge. The intention would be to maintain the position of the Spit head, maintaining the navigation channel. To the west of the headland, the intent would be to maintain the integrity of the isthmus along the Double Dykes frontage and maintain defence to the principle assets at Southbourne. At the same time, the aim is to maintain as far as possible the continuity of shoreline processes between the main section of Poole Bay and those of Solent Beach. To achieve this, consideration needs to be given to potential realignment along the line of the emerging Southbourne headland while examining options for extending the influence of the Long Groyne at Hengistbury Head. Between these two locations the aim would be to establish a more sustainable position for maintaining a robust semi-natural defence to the isthmus. This would not preclude increasing the beach width in front of Double Dykes, but neither would the defence position of the frontage be determined by defence of this feature's existing extent. The overall aim in this area is to maintain the open space, amenity and nature conservation value of the area by minimising reliance on hard defence to control the frontage.

Some public comments

"The SMP2 plan for managed realignment (MR) for Solent Beach is only satisfactory if the scheme for improving the Long Groyne widens the beach significantly at Double Dykes. That would be sustainability, however if MR does not create a wide beach as far west as the Dykes, then a consequential narrowing of the isthmus would not be consistent with the SEA objectives."

"We rate this as being by far the most important part of the plan for our community. Monitoring of the beach and at sea along this stretch must continue and all necessary measures taken to ensure there is no permanent breach to the west of the Head, which would make it into an island and destroy the integrity of the two bays."



Project
**Poole and Wareham
Flood and Coastal
Risk Management Strategy**

Title
**Poole and Wareham
SMP2 Policy Summary**

Policy at Swanage

The intent of the plan for Swanage is to maintain the viability and important heritage and community aspects of the area. This includes reducing flooding and providing protection to the town centre, maintaining access along and use of the coastal road, promenade and beach and sustaining important local use of the headland to Peveril Point. This includes all essential infrastructure. However, this has to recognise the important landscape setting of the town and seafront and the important geological value of the coast. To this end, the intent of the plan is to limit further extension of defences, particularly further north along the shore and to recommend approaches which may minimise landscape impact. Within this intent therefore, the recommendation is that the northern section of the existing defence line is managed more as a transitional area, between a firmer policy to Hold the Line of defence to the south, and the No Active Intervention policy to the north.

Some public comments

"I am concerned about the shoreline north of the promenade at Swanage - the cliffs in front of Ballard Estate. If they are allowed to continue to erode, the homes will fall into the sea. The promenade needs to be extended northwards now, so as to maintain the shoreline. The cliffs may slump behind it in due course, but not as much as to endanger the houses."

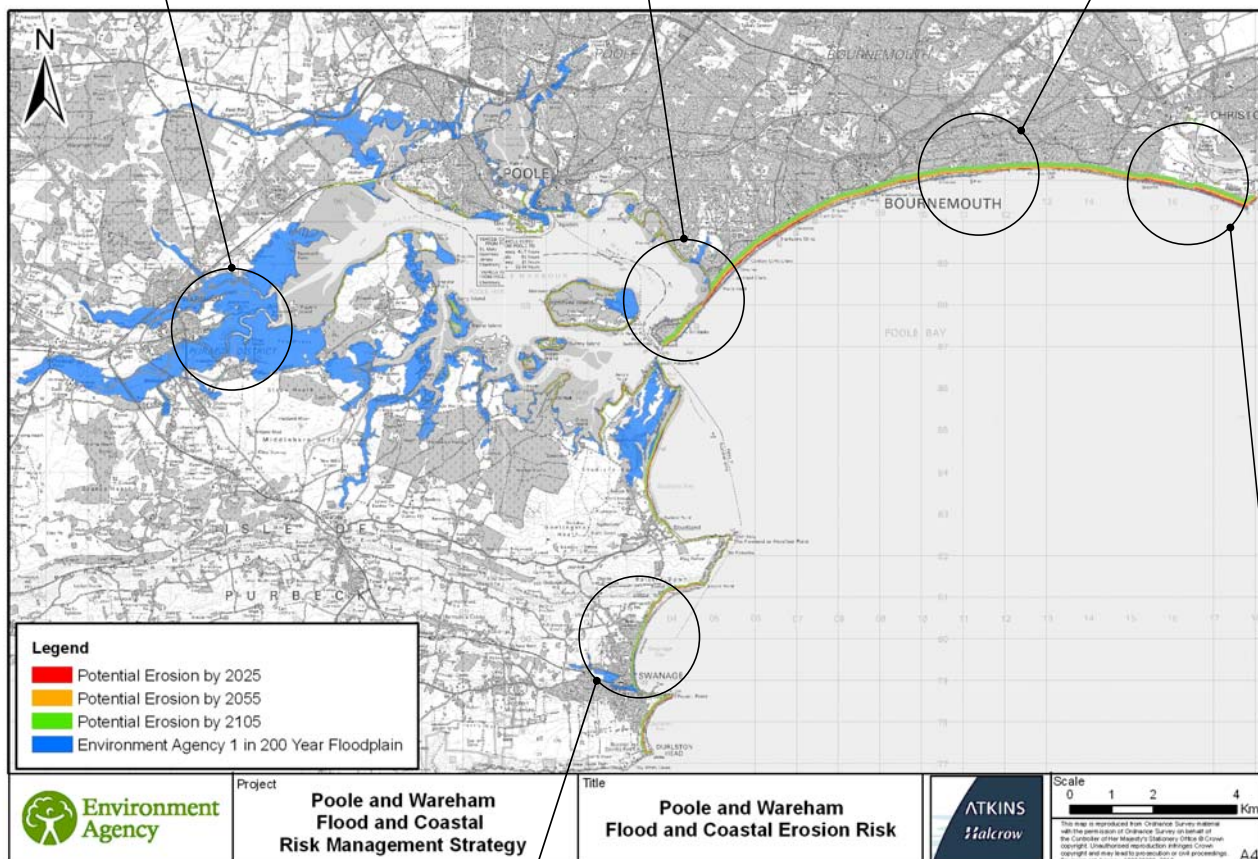
"The recharge (with sand) replacement groynes on Swanage beach has had the desired effect, more people enjoying the beach etc. Long term monitoring needs to be in place. Protection of the cliff from erosion by walkers is a balancing act between access and protecting environments and habitat."

Poole Bay, Poole Harbour and Wareham

future flood and coastal risk

This plan shows the extent of coastal flooding that in the present day would have a 1 in 200 chance of occurring in any year if there were no defences. This same level of flooding could happen **annually in 100 years time** due to rising sea levels if we do nothing with the existing defences. The plan also shows what erosion could happen over the next 100 years if we did not maintain the defences.

Please look at the six more detailed maps on the tables to read about our current defences and how rising sea levels and coastal erosion could affect them in the future.



environment

Strategic environmental assessment

We are carrying out a Strategic Environmental Assessment (SEA) as an integral part of the development of the strategy. We assess the environmental effects of all options and ensure we avoid or minimise any negative environmental impacts. We also aim to identify opportunities for environmental enhancements.

As part of the SEA, we have prepared an Environmental Scoping Consultation Document, which we have put on our website. This document describes the environmental issues, constraints and opportunities that the SEA will look at during later stages of the strategy.

An environmental report presenting the results of the full SEA will be published later this year.

Key environmental issues

The beaches, coastal scenery and high recreation value of Poole Harbour and the surrounding bays attract a large number of tourists to the area. People living, working, visiting and travelling around the area may benefit from views of the harbour or sea, which is a valuable amenity.

The area is of international, national and local importance for nature conservation, supporting a range of habitats including mudflat, saltmarsh and heathland. These habitats support a range of bird species. Fish and shellfish are also important.

Some of the flood defences lie within or next to the a number of internationally designated sites including : Poole Harbour SPA and Ramsar site, Dorset Heathlands SPA and Dorset Heaths SAC. We have a legal duty to compensate for any significant impacts on these designated sites due to our activities.

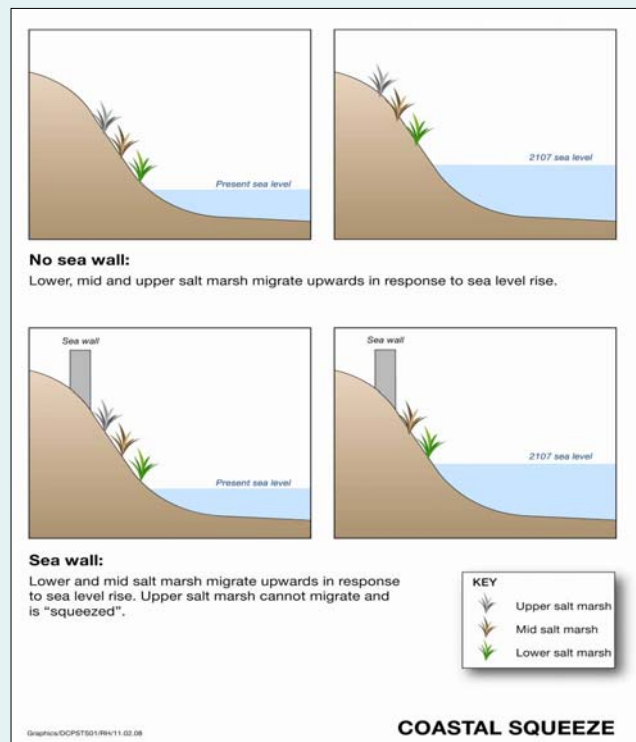
The harbour and surrounding bays have a distinctive landscape character. Parts of it are internationally and nationally important for landscape, comprising the Dorset Area of Outstanding Natural Beauty, Purbeck Heritage Coast and the Dorset and East Devon Coast World Heritage Site. There are also important historical designated and non-designated features around the harbour and surrounding bays.

Coastal squeeze

Intertidal habitat is a mixture of mudflat, salt marsh and sand dunes and is usually near the shoreline.

Any rise in sea levels naturally moves the habitat inland. If a sea wall has been built, movement inland is not possible and this effect is known as 'coastal squeeze'. Coastal squeeze leads to loss of intertidal habitat and potentially reduces the number of plants and animals that would normally live and feed there.

Coastal squeeze is occurring within Poole Harbour. As part of the strategy, we will identify sites to create intertidal habitat to replace losses from coastal squeeze.



what happens next ?

Your views

Local knowledge and experience is important to help us shape the future management of flood risk and coastal erosion around Poole Bay and the harbour.

It is important that the strategy adequately reflects the issues and concerns of the communities, businesses and organisations that have an interest in the area and its surroundings.

We want to hear your views so please put your comments on the six detailed maps and complete a feedback form today.

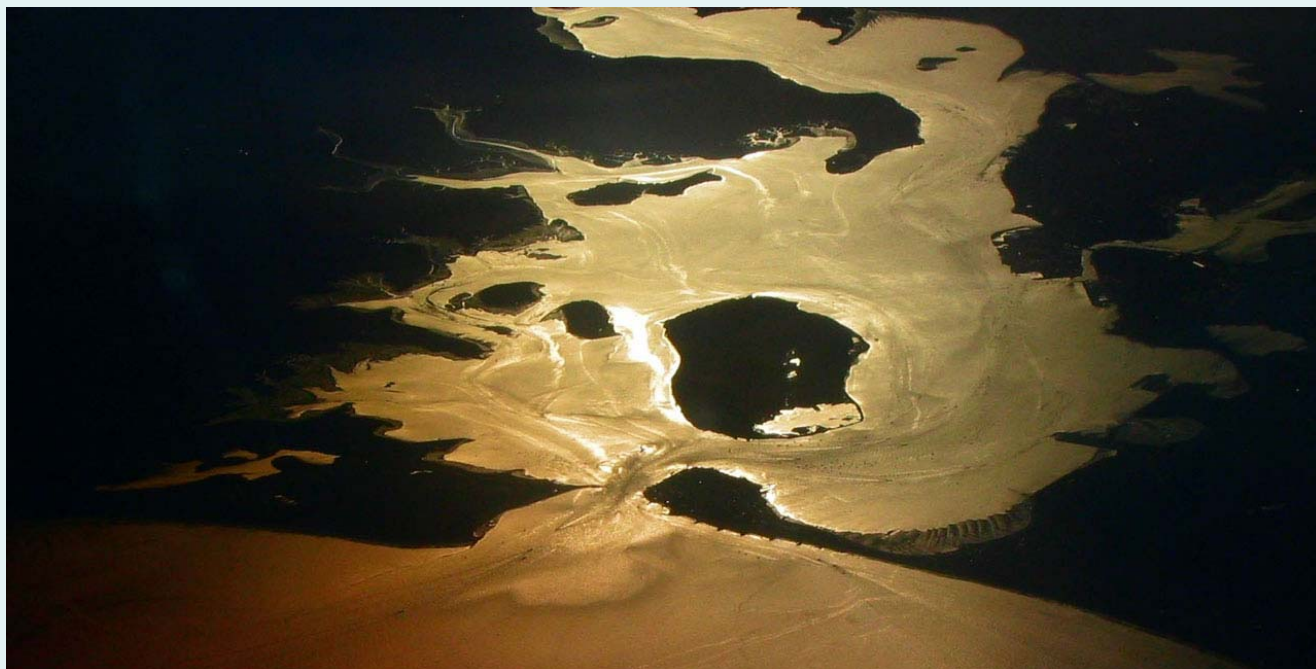
You can also contact us at any time with your views and comments via the email and postal addresses listed below.

Consultation stages

An essential part of the strategy is consulting the local community, and key stakeholders including local government, landowners and organisations with an interest in fisheries, nature conservation, recreation and tourism.

We have specific opportunities for you to help us develop the strategy. Our key public consultation activities are:

Spring 2011	This public exhibition
Autumn 2011	Report on the possible extent of any environmental impacts will be published on our website for comment
Winter 2011	Public exhibition and on-line consultation on the draft strategy and environmental impacts report.



Further information and contact details

This exhibition and further information will be put on our website at:

<http://www.environment-agency.gov.uk/homeandleisure/floods/121323.aspx>

Please contact the project team by email at:

pooleandwarehamstrategy@atkinglobal.com

or the Environment Agency project manager:

Steve Rendell
Environment Agency
Manley House
Kestrel Way
Exeter
EX2 7LQ

Tel: 01392 442021