

How is our coast changing?

The coast has and always will change through natural, ongoing processes. This change creates the beautiful World Heritage coastline of Dorset and East Devon.



Old Harry Rocks

Stair Hole, Lulworth

West Bay



Stonebarrow

Beer Head

Budleigh Salterton

• Shaping the coast

Landslides, cliff erosion and migration of beach material all occur at different rates. Some are slow like the shifting profile of Chesil Beach and others are rapid like landslides. All are driven by the energy of the sea and the climate.



Landslip at Charmouth, West Dorset



Chesil Beach, Dorset

• The Climate

The climate of the earth has always changed and will continue to do so. It is predicted that the change in climate will cause wetter winters, sea level rise and an increase in storminess. This will put more pressure on the coast, accelerating the process of change.

The natural process of erosion creates our beautiful coastline and the benefits which come from it, but conflict can occur when erosion threatens people's livelihoods, homes and other assets.

Did you know...

a natural beach is the best form of protection. Installing coastal defences in one area to sustain beach levels can starve beaches of material either side, increasing erosion and the need to install more coastal defences.

Did you know...

people can also trigger coastal change. For example, beach shingle used to be quarried to make concrete. This has now been stopped due to its impact on the coastline.



© Richard Gosling. Rockfall at Pennington Point, Sidmouth

How is the coast managed?

The coast is managed in partnership by the Environment Agency and local authorities with input from local communities. They work together to produce Shoreline Management Plans which set out policies on how the coast should be managed in the future. Risk to property, infrastructure, the historic and natural environment and technical feasibility are all taken into consideration.

• Who funds coastal defences?

Defra (Department for Environment, Food and Rural Affairs) provides the majority of funding and allocates this money to the Environment Agency to distribute. Contributions are also made from local authorities, developers and utility companies.

• How much is spent on coastal defences?

Every year, Defra allocate around £500 million towards flooding and coastal protection, of which £35 million is spent on new coastal defence schemes. Lyme Regis's new defence scheme in 2007 cost £26 million.

Did you know...

the government have no legal obligation to protect the coastline from erosion, even if it means losing property.

There are four options for managing the coast set out in the Shoreline Management Plan:

• Advance The Line

Coastal defences are installed in front of existing defences to reclaim land from the sea.

New coastal defences were installed in front of the original defences in 2007 at Gun Cliff, Lyme Regis, to protect the seafront buildings and a sewage pumping station.



• Hold The Line

The current level of protection is continued either by maintaining the existing defences or upgrading them.

Rock armour, Seatown, West Dorset



• Managed Realignment

The coast is deliberately realigned to a more natural orientation.

© Defra. Wallasea Island, Essex. Defences were breached in 2006 to create wetlands.



• No Active Intervention

The coastline is left to the forces of nature with no plans for future investment in coastal defences to protect the beach.

Durdle Door, Lulworth



Damaged sea wall after a storm on Preston Beach Road, Weymouth.

Did you know...

13.8% (865km) of England and Wales's coastline are protected through coastal defence schemes.

The future of our coast: how can communities adapt to coastal change?

Increased rates of coastal erosion and pressure on public spending mean we may not be able to protect everywhere which is currently protected. Where coastal defence may not be sustainable, communities need other options to adapt.

• Relocate valuable property and infrastructure

Moving or replacing buildings further inland away from the coast can help communities continue to thrive.



© The Landmark Trust. Clavell Tower was relocated 20m behind the original site in 2006 to secure its future.

Did you know...

homeowners are required by law to demolish their property once it becomes unsafe as a result of erosion.



© Mike Page. Happisburgh, North Norfolk

In North Norfolk, the local authority has worked with residents to relocate householders facing loss of homes to sites inland.

• Making communities more resilient

Coastal change is often driven by sudden, extreme weather. Communities can develop emergency response plans to prepare for such events and raise awareness of the risks to improve resilience.



© John Rose. Buses and cars were trapped by storms in 1990/91 on the Preston Beach Road.

Did you know...

the only form of compensation available to homeowners is a £6,000 grant to help with demolition costs.

• Planning for change

Local authorities can reduce the impacts of coastal change by avoiding new development in areas at risk and supporting the relocation of existing development away from areas at risk. Communities and local authorities need to work together across boundaries as developments in one area may have impacts on others.

• Re-thinking our relationship with the sea

Even in areas where it is possible to 'Hold The Line', it does not mean there will be no change. Beaches in resorts along the Jurassic Coast could be squeezed between rising sea levels and hard defences and in these situations, coastal communities may need to rethink their relationship with the sea. As well as responding to the potential threats caused by coastal change, communities may also find new opportunities to take advantage of the outstanding asset which the coast represents.



© James Feaver. Millions of people visit the beach each year, but what would happen if the beach is squeezed?

What do you think is the best option for your local area?