

Coastal Management

A brief overview of hard and soft coastal management techniques

Soft Engineering



Dune Fencing

Built seaward of these natural barriers, fencing inhibits trampling by beach users allowing sand to settle and dune size to increase.



Dune Planting

Plants such as Lyme or Marram Grass trap sand, root systems are extensive and mat together, helping to stabilise the dunes.



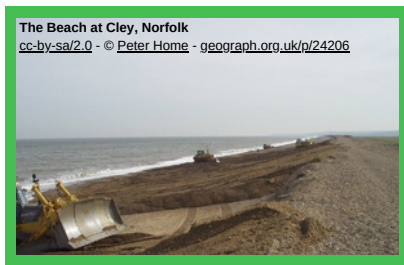
Dune Thatching

Covering the dune face with bundles of straw, branches in some areas, increases sand accretion and protects dune vegetation.



Beach Nourishment

Material is dredged from the sea bed and pumped to shore along with large amounts of water to replenish eroded material.



Beach Reprofilling

This involves the reshaping of the beach by moving material from areas of accretion to areas which have eroded.



Managed Realignment

Managed realignment is the planned breach or relocation of sea defences to allow previously defended land to flood.

Hard Engineering



Sea Walls

Deflect wave energy and stop the waves from high tides and storm surges reaching inland.



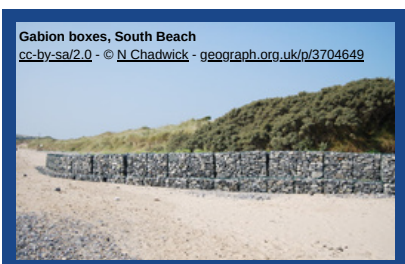
Revetments

Angled, stepped structure can be constructed from wood or concrete, to reduce erosion and wave energy.



Groynes

Wood, concrete or rock structure stretching out from the shoreline to the sea. Slow the migration of material along the coastline.



Gabions

Cages filled with rocks slow erosion and reduce wave energy.



Riprap / Rock Armour

Boulders or pre cast concrete blocks placed on the shore line dissipate wave energy, and slow erosion.



Breakwaters

Offshore structures usually made from concrete or large boulders which dissipate wave energy before it reaches the shore.