Coastal Flood Risk

Flood Risk along the coast is influenced by the coastal processes. Increased erosion is putting pressure on the existing defences, with this comes an increasing risk of breaches and consequently tidal flooding.

Holding the line in the areas of current erosional pressure increases the potential for erosion on areas either side of the protected area. Therefore, the options taken forward are focused on managing the realignment of these areas in line with the Shoreline Management Plan.

Penrhos







Increase defence heights around the harbour where needed to manage the risk of flooding from future storm events.



Pwllhel



New Harbour Gates

A regulated barrier at the harbour entrance to create capacity within the harbour to manage river flooding and equally to manage tidal flood risks from storm surges.



Realign Defences (Inland)

New coastal defences to the west of the town, perpendicular to the coastal frontage allowing the coastline to move back.



Groynes and Breakwater

Hard barriers (typically rock or timber) designed to help trap sediment and preserve the beach, improving protection from flooding and erosion.



Realign Defences (Coastal)

New coastal defences moved marginally inland but remaining consistent with the current alignment along the western coastal frontage, allowing the coastline space to movee back.



Beach/Sand Replenishment

Introducing significant volumes of sediment or sand along the western frontage to increase the extent to which the dunes and shore can act as a barrier to storm events



Hard Engineering Defences

Hard engineered defences such as rock armour or rip-rap to protect the shoreline against scour and wave erosion.





Wave front



Erosional pressure present day