

How is Hunstanton defended against coastal erosion?

Location

Hunstanton is a seaside town (population 4,229) on the west coast of Norfolk, England, facing the Wash. It is also one of the few places on the east coast of England where you can see the sunset over the sea.



Coastal Management along the Hunstanton coast

HUNSTANTON CLIFFS

Hunstanton cliffs are eroding at an average rate of **3 metres every 10 years**. Defence schemes such as **base netting, sand bags and gabions** help slow down the rate of erosion

HUNSTANTON TOWN

The coastal defences in this area consist of hard engineering options. The town is protected by a **500m sea wall** which is supported by many **groynes** which aims at extending the beach. **Rock armour** is also used, but only on important sections of the town.

SOUTH HUNSTANTON

Here **soft sand ridges** are strengthened with **smaller sea walls**. Some areas of the beach are supported by groynes that aim to trap sediment and help build up the beach further to reduce erosion.

Is the Hunstanton Management Successful?

Most of the effects are positive, as the town is now protected by sea walls and the beach has been built up. The major problem of the sea defences is the effect on the beach at Heacham, located south of Hunstanton. Here the groynes further north have stopped longshore drift supplying its beach. Now the beach is small and vulnerable

Geology

The town is edged by a stretch of tall cliffs with contrasting colours of orange, red and white **sedimentary rocks**. These different types of rock formed millions of years ago.



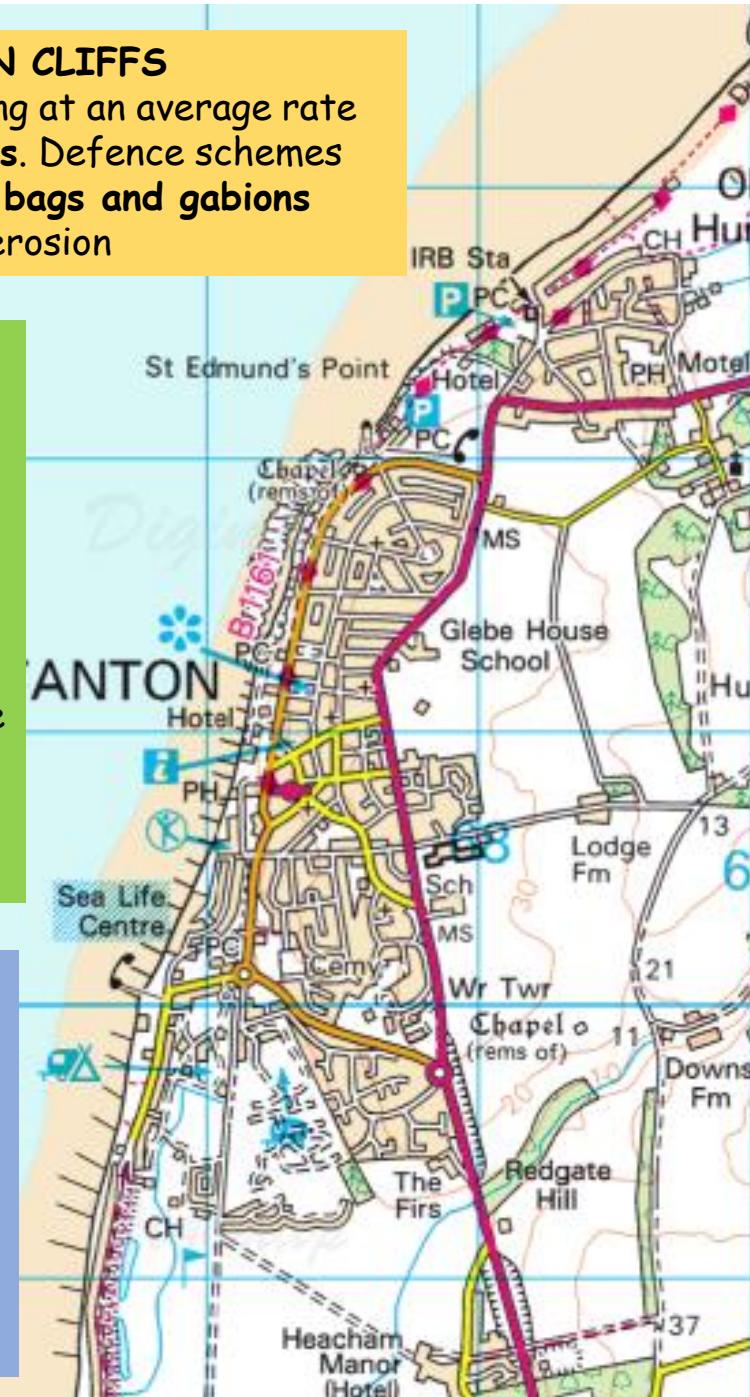
Transportation Processes

Longshore drift moves sediment west and then south past Hunstanton in a zig zag movement. If uninterrupted, the sediment would continue to **The Wash**.

Why does it need protecting?

It is estimated that the risk from flooding amounts to some **£26 million**. The need for effective sea defences has been demonstrated twice, firstly in 1953 when 65 people died as a result of sea flooding.

Then, in December 2013, Hunstanton experienced waves that breached the town's concrete sea walls and damaged several businesses along the front. The storm surge caused marine creatures to be evacuated from the Sea Life centre and damaged the sea wall. In the long term, there were financial losses to flooded businesses.



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Where is Hunstanton?

Geology and Processes

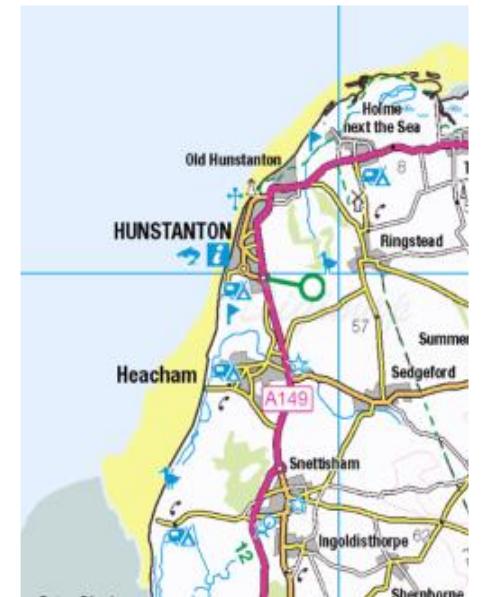


How is Hunstanton protected?

Hunstanton Cliffs

Hunstanton Town

Hunstanton South



Why does Hunstanton need protecting?

Is the protection working?

<p style="text-align: center;">Environmentalist</p> <p>“I am really worried about the impact of hard engineering methods along Hunstanton. Part of the Hunstanton coast is a Site of Special Scientific Interest (SSSI). The extra construction of defences and the stopping of natural processes from using groynes could potentially disrupt animals and their habitats”.</p>	<p style="text-align: center;">Farmer</p> <p>“My farm is south of Hunstanton. Since they have put a number of groynes along the town’s front, there has been a lack of beach material arriving to the coast alongside my farm. As a result, I have noticed an increase in erosion. This is decreasing the land needed for my crops and costing me money”.</p>	<p style="text-align: center;">Resident</p> <p>“Coastal defences are vital for the protection of our homes. After the recent 2013 floods, I would like more defences to ensure homes are no longer affected by potential floods. The insurance for my house is already enough without the threat of it possibly increasing due to a lack of defences”.</p>
<p style="text-align: center;">Business Owner</p> <p>“I own a shop along the Hunstanton Promenade which sells tea and coffee for the many tourists who visit. These tourists support our economy and many jobs. Without coastal defences such as sea walls, our shops would be damaged during large storms. This might affect tourists visiting our town and therefore our businesses”.</p>	<p style="text-align: center;">Environment Agency</p> <p>“My job is to monitor and listen to the various stakeholders along the coast. I make recommendations to local councils and the government on the best methods to protect important coastlines without harming the social, economic and environmental factors that make Hunstanton a unique place to visit.”</p>	<p style="text-align: center;">Tourist</p> <p>I enjoy the beach and the many shops along the promenade. However, last year a storm destroyed the Sea Life centre causing it to be closed for nearly a year. This news put me off visiting because I enjoy going there. I think more defences would make the town safe but I don’t want them damaging the beach.</p>