

Coastal management



**ASSIGN
BUSTER**

A coastal environment (Small/Regional Scale) the processes affecting this coast, its landforms and its management. Key Questions from the GEESE syllabus: Key Questions from the GEESE syllabus: Why do coastal processes need to be managed? How are coastlines managed? Why does coastal management create controversy? The Forth-Hymnals coastline is an area currently undergoing a major change in the way it is managed. Your task is to find out: 1. A description of the location of this stretch of coastline 2. What coastal features are found along this stretch of coastline 3.

What management strategies are being developed 4. Why they are being developed 5. Collect a set of specific facts about the management strategies 6. Who will benefit from the new strategies 7. Who will be disadvantaged by the new strategies Your research must have all of this information, as the exam board may ask a case study question on any of the above aspects of this case study. You will be writing a timed Case Study answer following this work, which will only use part of your research information: For a named area of coastline, describe the management strategies being used and explain how different groups of people will be affected.

Your work will be assessed using the case study Mark scheme My Hymnals Coastal management Case Study 1) A description of the location of this stretch of coastline Site Location - The site location on the beach on the seaward side of Lower Forth village Hymnals is located in Wales 8 miles (13 km) north of Abernathy and it is 1.5 miles north of Forth. The Hymnals coastline stretches over 2 miles and is located in the county of Ceredigion. Hymnals is situated right next to a number of small towns and is unconnected to the main road the A447.) What coastal features are found

along this stretch of coastline To the north of this coast lies a large estuary with a embryonic spit occurring towards the mouth of the estuary. A spit is formed from alongshore drift moving material along the beaches and the material is deposited and overtime the spit forms a right angle shape 4. Waves cannot get past a spit, which creates a extends about km from the southern side of the defy estuary. The main line of the spit is formed by gravels that are exposed at high water level along the southern part f the spit. 3) What management strategies are being developed?

Work began early autumn 2010. The aim of Correction council is to protect the beaches from erosion and flooding and the surrounding communities. On cardigan bay there are around 1500 homes and about 7000 to protect from the natural elements of living near to and visiting the coast. Forth village has developed on a mobile shingle beach with many properties built on the beach, this means it is more vulnerable to flooding. Wooden Grosses Grosses protect against alongshore drift and backwash which means the beach will be free from erosion and the beach material being washed downer by alongshore drift.

In the ass's Correction county council built some wooden grosses and breastwork defenses however they have recently been deemed as coming to the end of their life and there then was a further need for protection of the km frontage. Rock Grosses Constructed near the Craig y Delay cliffs to the south of forth. Grosses do not add extra material to a beach, but merely retain some of the existing sediment on the updraft side of the grosses At the southern end Another strategy to protect against erosion from the waves

the council built a series of onshore rock breakwater groynes. The groynes are 100m long each and are followed by a breakwater.

The rock groynes are made of rock obviously and commonly are basalt. " Two rock groynes and two rock breakwaters will be placed at intervals along the beach, and these will retain the shingle, in much the same way as the timber groynes do now. " - Correction council The present coastal defenses were designed in the 1950s, and the timber groynes and breastworks directly fronting the village were constructed in stages during the early 1950s, with the groynes reducing the alongshore drift of sediment, and the breastwork providing a back stop to protect the shingle bank on which so much of Forth has been founded.

The Multi-Purpose Reef The multi-purpose reef is located 100m offshore which will be unobstructed and only to be seen when the shore is out. The idea is that the waves break over the reef which will reduce the energy in the waves so they arrive at the beach with less force therefore reducing the amount of erosion and to encourage the development of a broader beach inshore. The reef has been created to protect the shingle beach from erosion however it has created a better surfing facility and so encouraging surfers to the area.

Beach Nourishment " Sand and shingle will be placed on the beach to increase its width. This will provide Forth Village with more protection from incoming waves, as waves will be breaking further offshore and they will therefore have a wider beach over which their energy is released. " - Correction council Beach nourishment took place along all of the lower Forth

village frontage. The shingle was imported and placed along the village frontage to create a stable beach.

Along the village frontage, the aim was to create and sustain a shingle beach with a minimum crest width of 100m. Multipurpose reef - The reasons behind the construction of the multipurpose reef is to encourage the waves to break on the reef and so losing their energy out offshore so when they reach the beach they have little energy therefore minimizing the chance of erosion by hydrophilic action.

Another benefit of the reef is that it provides a very good surfing facility as it acts to focus and shape the waves to improve curability. The final aim of the reef was to encourage a wider beach inshore which is neither coast protection component. Beach Rock Groynes and Rock Breakwaters They placed rock Groynes and two breakwaters in intervals along the beach which will stop long shore drift and protect the shingle beach the same as the timber ones but obviously much more durable.

Beach Nourishment Sand and shingles will be bought by Council and deposited on the beach to extend its width. This therefore will increase the protection of Forth village from the incoming waves as they will be breaking further offshore and also have more beach for the waves to break their energy down on. 5. Collect a set of specific facts about the management strategies See within questions three and four 6.

Who will benefit from the new strategies There are many people who will benefit for example The Locals It has become evident throughout my research that there is a main concern concerning this locals and the

<https://assignbuster.com/coastal-management/>

protection of their homes and businesses. All the protection elements of the scheme aim to protect against the erosion of the beaches which would eventually get further inland and destroy their homes. Tourists The beach nourishment means that there is a wider beach therefore making it deter for tourists as there will be more room for more people and the beach will be more appealing to them.

Also the construction of the multi purpose reef means there is a better surf facility for surfer visiting the forth coastline. Entrepreneurs of Forth and Hymnals Inevitably the Attraction of tourists to the beaches will benefit the local shop owners and restaurant owners and also holiday makers as there will be more people interested in visiting forth and hymnals because of the better coast conditions and so therefore more people to spend money in the local businesses