



## Bonchurch to Ventnor: Going in hard!

Welcome to Ventnor! In this location, you will study:

- ✓ The **Shoreline Management Plan** for this location
- ✓ The **coastal management strategies** in place in this location.

### Introducing the SMP

A SMP is a document which is produced for all areas along the coastline in England and Wales. Each of the 11 sediment cells around this coastline are divided into sub-cells (based on knowledge of local processes) and, for each of these, an SMP is written.

It examines the risks associated with coastal processes (erosion/flooding) and presents a policy detailing an approach



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multi-engineered approach using a variety of hard engineering strategies to retain the existing coastline. There are many reasons for this strategy in this location.



### Why the need?

- ▶ The area lies within a stretch known as the 'Undercliff'; an area of complicated and ununiformed geology that is prone to landslides. There are a range of landslide features including rotational slumping, mudslides and rockfalls (pictured). Heavy rainfall and storms exacerbate the unstable conditions in the area.
- ▶ This stretch of coast is also vulnerable to wave attack due to a variety of reasons:
  - » its large fetch across the Channel/Atlantic, its exposure to the south-west prevailing winds and resulting high energy waves and storm surges (over 1m above predicted levels);
  - » sediment supply is limited and beaches are non-existent or very narrow, providing little natural protection at the base of the cliffs;
  - » high energy destructive storm waves abrade the base of the cliffs and sea defences with gravel.
- ▶ Proximity of properties to the coastline at Bonchurch Shore/Monk's Bay and all the way along to Ventnor.
- ▶ Shore Road runs close to the cliff edge in Bonchurch and provides access to beach-front properties and businesses e.g. Bonchurch Pottery, or The Seapot at Wheeler's Bay (pictured).
- ▶ Ventnor is a popular tourist resort and the esplanade has numerous businesses and residential/holiday properties along it, as well as a main road and other leisure amenities such as the paddling pool.
- ▶ The main east-west A3055 route is a key access road on the island and passes close to the coast in places, as well as numerous minor roads linking residential areas.



**What is being done?**

You are going to investigate the coastal defence strategies that are being implemented between Bonchurch and Ventnor.

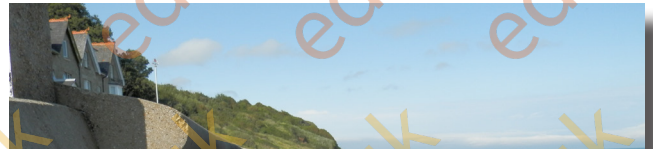
Below are a series of images which show you the defences to look out for along the way.

You should locate each method (plus any others you spot!) on the supplied map, and also add annotations around the map to describe and explain how each method is aiming to protect this stretch of coastline from the risks detailed above (in the 'why the need' section!)

**Beach nourishment, offshore breakwater and rock groynes at Monk's Bay**



**Curved sea wall and rock groyne at Monk's Bay**



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**Sea wall, concrete steps and promenade backed by wooden wall from Bonchurch to Ventnor**



**Cliff drainage between Bonchurch and Ventnor**



Rip-rap boulders at Wheeler's Bay



Concrete tetrapods at Wheeler's Bay



Concrete steps and rock armour at Ventnor Beach



Rock/tetrapod breakwater at Wheeler's Bay



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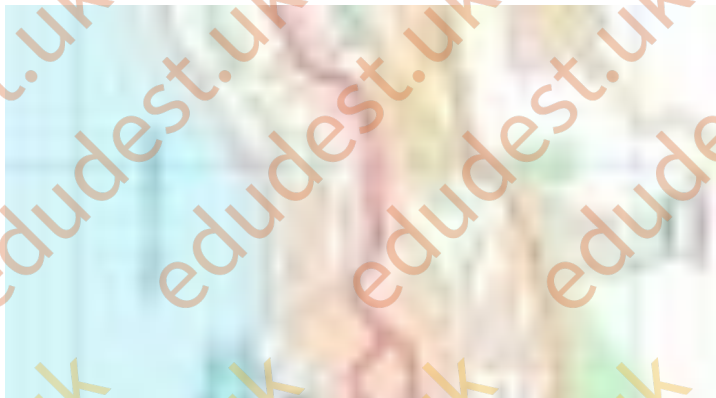
Straight sea wall at Ventnor Beach



Wooden groynes and rock revetment at western end of Ventnor Beach



Post visit research: Find out further detail on what has been done here at <http://www.coastalwight.gov.uk/coastaldefenceschemes.htm>



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