

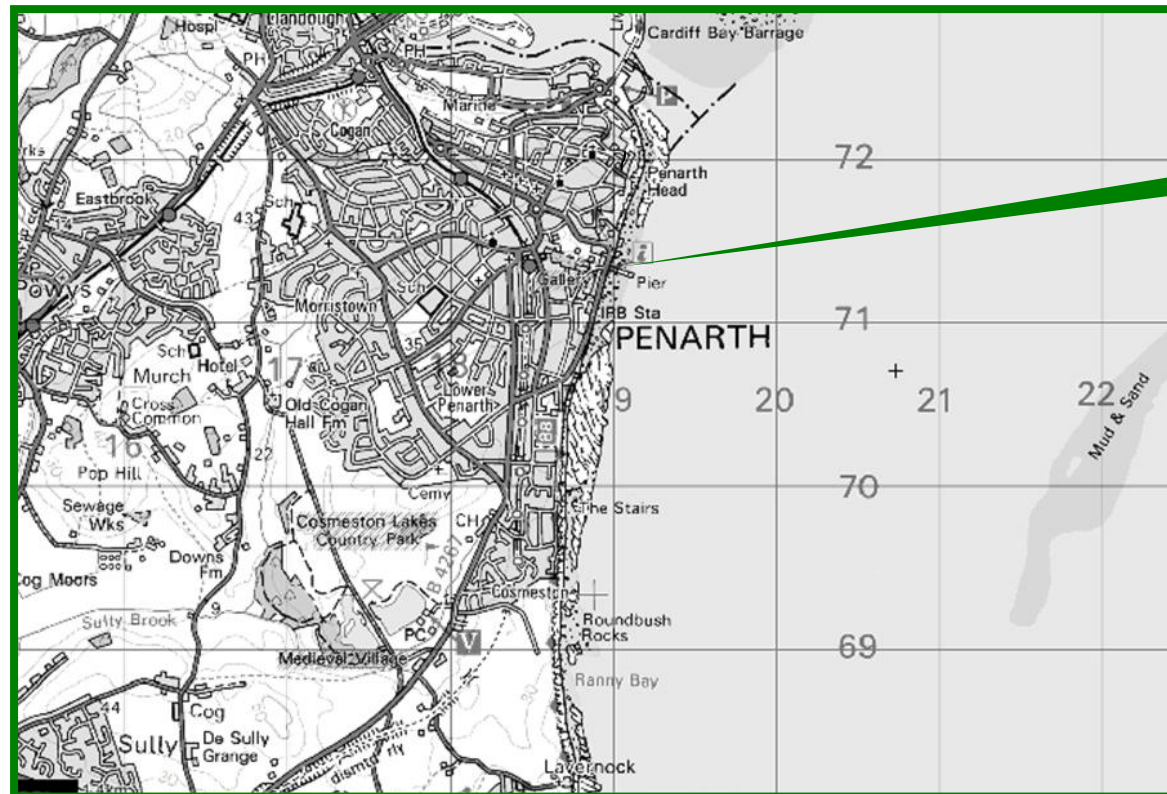
# Penarth

## Existing defences and probability of flooding

There is a 1 in 5 chance in any one year of waves overtopping the sea wall causing damage to buildings.

We expect sea levels to rise and storms to become worse, increasing the risk of waves overtopping the defences.

Frequent wave overtopping and rising sea level could cause damage and eventual collapse of the sea wall. We think this would become a serious hazard from 50 years time if improvements have not been carried out before then.



## What can be done?

In the longer term the sea wall could be raised to prevent flooding getting any worse.

The sea wall and promenade at Penarth is owned by Vale of Glamorgan Council, who would be expected to lead any improvement project.

Raising the defences would be most effectively done in conjunction with improvements to the promenade.

Vale of Glamorgan Council would lead on monitoring of erosion of the coastline south of Penarth.

Penarth Pier will continue to be exposed to the effects of sea level rise.

## Sea level rise note

The UKCP09 medium emissions scenario projects about 0.1m of sea level rise by 2030, about 0.3m by 2060, and about 0.7m by 2110.

Currently sea level is rising at about 2 to 2.5mm a year. If this rate were to continue then sea level rise would be less than what is projected by the UKCP09 medium emissions scenario.

## How these proposals were reached

There are a small number of properties, mainly businesses, at risk of flooding from the tide at Penarth because the ground rises steeply from the seafront. Requirements of tourism and economic activity will tend to determine how this area develops.