Wentlooge

Existing defences and probability of flooding

Around 8,700 properties currently benefit from the existing sea defences.

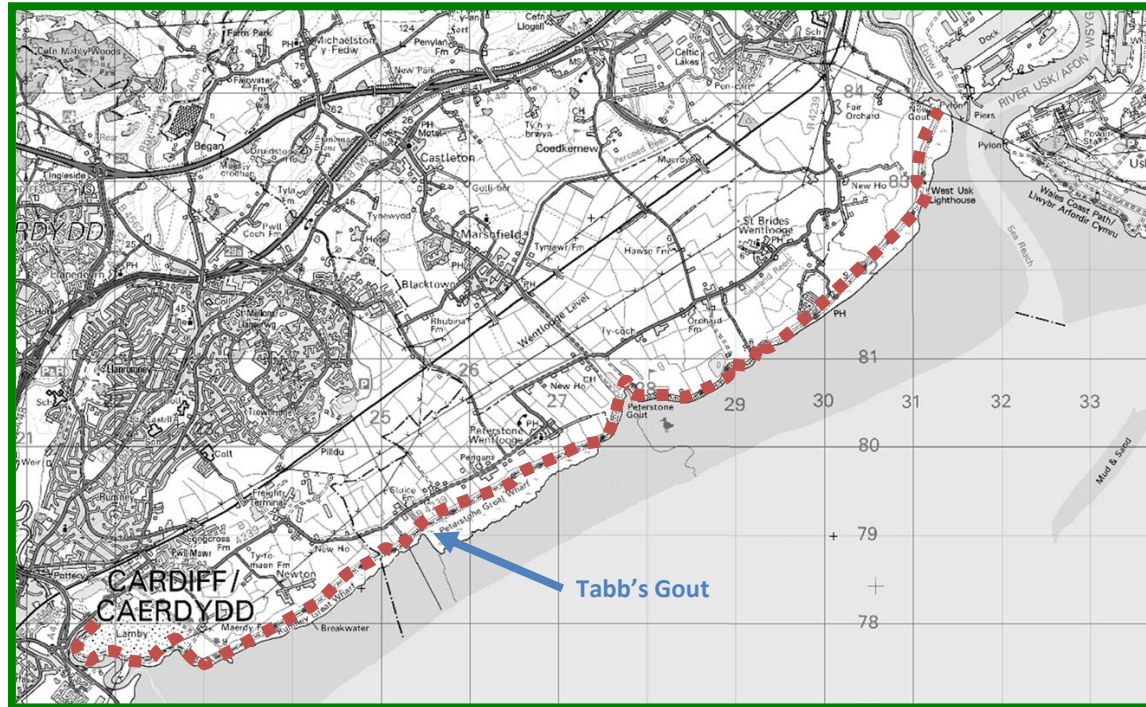Important protected infrastructure includes power transmission lines and the railway.

The risk of tidal flooding to most properties is a 1 in 200 chance or less in any year.

Fields close to the defences experience localised wave spray during most years.

These are earth embankments, some of which have stone facing or rock armouring. These can be upgraded at the appropriate time.

There is a lower section of embankment at Tabb's Gout that has a higher risk of localised tidal flooding.

Flood risk will increase as sea levels rise and storms become worse.

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.

Tabb's Gout

How these proposals were reached

There is a strong economic case to maintain and improve the existing defences due large number of properties and infrastructure that is protected. Rebuilding the defences further inland is not a less expensive option for the foreseeable future.

Key

Existing defences referred to in text

What can be done?

In the next five years we propose making improvements at the weaker section of embankment near Tabbs Gout.

This action will ensure that the chance of tidal flooding is consistent across the area at a 1 in 200 chance or less.

We expect to strengthen the defences by increasing the height of the embankments to keep pace with climate change.

This will ensure that the chance of tidal flooding remains at 1 in 200 or less in any year for around 8,700 properties. We expect this significant expenditure to be required from 50 years onwards.

New development must take account of the Technical Advice Note 15 (TAN 15) – Development and Flood Risk