

# Alvington, Aylburton and Lydney

## Existing defences and probability of flooding

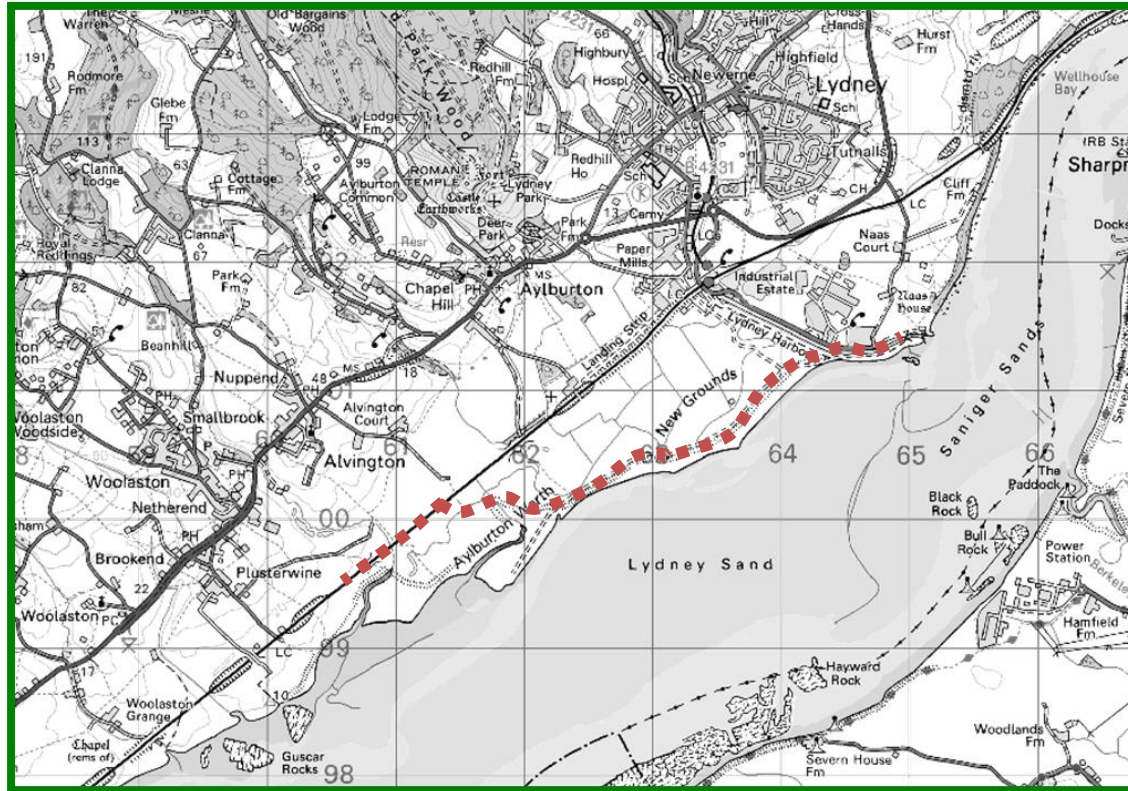
At Lydney and Aylburton New Grounds, there are embankments with rock armouring that protect mainly agricultural land. The railway line acts as high ground behind the embankment.

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

Sea levels and storminess are likely to increase in the future. The tidal flood risk to property near Lydney will become greater than a 1 in 200 chance with a sea level rise of 0.3m.

Minimal maintenance is required to the banks and rock armour at Lydney and Aylburton New Grounds in the foreseeable future.

The area of land between Aylburton Warth and Guscar Rocks on the estuary side of the railway line is not formally protected and the old defences are affected by erosion.



## What can be done?

The EA intends to maintain the defences (as funds allow), and then sustain the current standard of protection by raising the defences at Lydney and Aylburton New Grounds in response to climate change.

This is subject to the availability of funding. Please see the Supporting Information for further explanation of EA maintenance and funding.

The Lydney and Aylburton New Grounds defences are not expected to need to be raised until towards the end of the century. This depends on the ongoing condition of the defences and how much actual sea level rise is experienced. At that time strengthening the existing defences or realigning them inland could be considered.

Earlier managed realignment of defences may be an option, should landowners wish to consider this.

## Sea level rise note

The UKCP09 medium emissions scenario projects approximate sea level rises of 0.1m by 2030, 0.3m by 2060, and 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 the amount projected by the UKCP09 medium emissions scenario.

## How these options were reached

The economic benefits are more than the costs of maintaining the defence and are likely to be more than the costs of sustaining the current standard of protection in the longer term.

### Key

●●●●●●●● Existing defences referred to in text

## Ongoing local discussions

We are working with landowners to create up to 39ha of salt marsh habitat by breaching old defences on the estuary side of the railway between Aylburton Warth and Guscar Rocks. This will help support/compensate for maintaining and improving flood defences elsewhere in the estuary.