# **Sharpness to Aust**

# Probability of flooding and existing defences

The probability of tidal flooding is currently 1 in 200 or less in any year. Some localised weaker spots have a higher chance of flooding; some agricultural land has a risk of flooding of approximately 1 in 10 in any year.

In the future, as sea levels and storminess increase, the level of flood risk will increase.

By 2060 the risk of flooding is predicted to increase as a result of sea level rise to:

- Approximately 1 in 50 at Berkeley;
- Approximately 1 in 5 to agricultural land at weaker spots around Shepperdine;
- Approximately 1 in 100 at Littleton Upon Severn.

Continued maintenance by the Environment Agency, landowners and other authorities is required to ensure defences continue to be effective.

#### Key

Defences maintained by the EA

Other defences



#### 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, sea level rise would be less than what is projected by the UKCP09 medium emissions scenario.

#### How these options were reached

There is currently sufficient public benefit for the Environment Agency to continue maintenance of the defences into the foreseeable future. We will continue to maintain the existing defences as funds allow.

The risk of flooding could increase significantly by 2060, and the defences will become inadequate if they are not improved.

There are 500 properties benefiting from the existing defences, as well as locally important infrastructure including the Oldbury and Berkeley Power Station sites, which will become at risk of flooding without continued maintenance and improvements to defences.

## What can be done?

We will continue to maintain and repair the embankments as funds allow.

Improvements have recently been completed on a weaker section of embankment near Hill Pill. This will ensure a low probability of flooding of 1 in 200 in any year.

After 2030, provided funding can be secured, the embankments will be strengthened and raised to keep pace with climate change. This will ensure the flood risk is reduced to 1 in 200 in any year for around 500 properties.

Oldbury is a site nominated by central government for a potential new nuclear power station. If this were to happen the defences could be improved as part of the planning conditions for the site,; however it is not certain if, or when, this might occur.

Landowners can help to maximise the life of defences by ensuring their activities do not cause unnecessary damage.

## **Ongoing local discussions**

The potential development of Oldbury Power Station is being discussed as is working with others to improve defences.