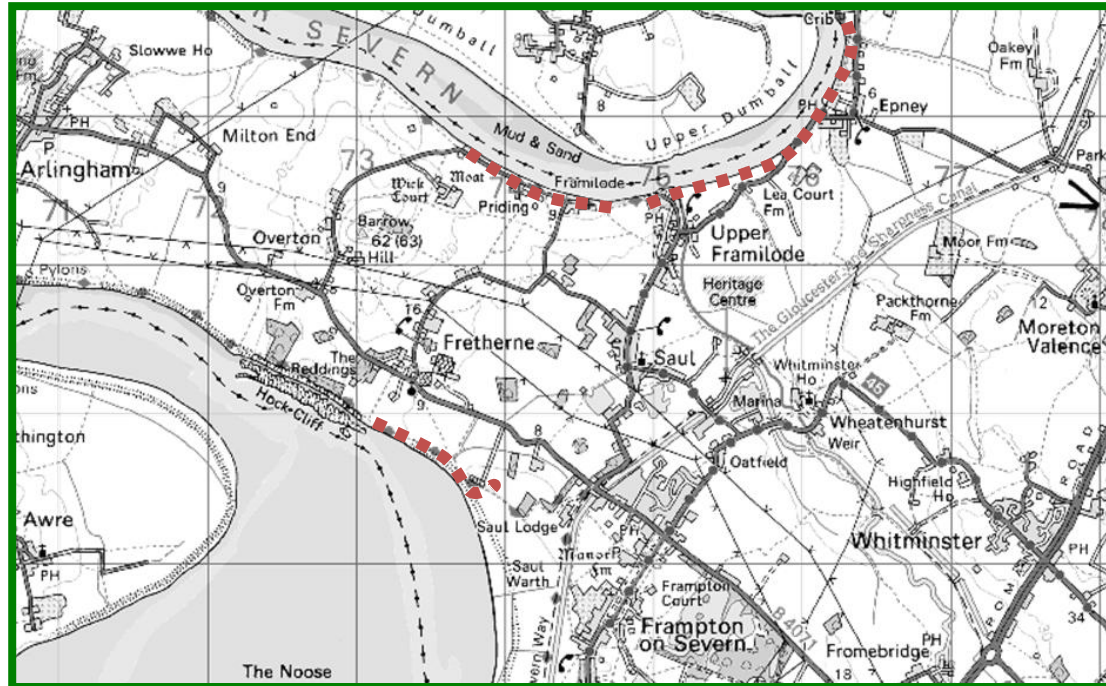


Fretherne-with-Saul and Epney

Existing defences and probability of flooding

The parish of Fretherne-with-Saul and village of Epney are currently protected to a 1 in 100 chance in any year of tidal flooding by river defences (sea wall, earth embankment, flapped outfalls) to the north and west respectively. Earth embankments and an outfall on the south side of Fretherne-with-Saul also provide protection to a 1 in 100 chance or less of tidal flooding in any year. Major outfalls which discharge water from the River Frome and Epney Rhine (on the north side) and Hock Ditch (on the south side) form an important part of the defences.

In the future, as sea levels and storminess increase, the risk of flooding will increase. A sea level rise of 0.1m in the upper estuary would increase the risk of tidal flooding from the Severn to a 1 in 50 chance in any year.



What can be done now and in the future?

The EA intends to maintain and then raise the defences in phases to sustain the current standard of protection in response to climate change (as funds allow). The aim is to raise defences before flood risk becomes greater than a 1 in 75 chance in any year.

The EA intend to continue to maintain the mechanisms associated with the outfalls to ensure the successful discharge of surface water.

Please see the Supporting Information for further explanation of EA maintenance and funding.

How these options were reached

The high number of properties in this area, as well as infrastructure, listed structures and environmental features means there are high economic benefits for ensuring the continued integrity of the defences.

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 and an approximate increase in fluvial flow of 25% 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.

Ongoing discussions

The EA is working to improve understanding of the fluvial and coastal processes that influence the upper estuary into the future. This may include extending the regional coastal monitoring programme to take in the upper estuary. We are working with the local community to incorporate local monitoring.

The EA is working with the Proudman Oceanographic Laboratory, who provide the national tidal and sea level monitoring facility, to incorporate data from existing tidal gauges between Sharpness and Gloucester into long term monitoring of sea level rise.

The EA is continuing to make improvements to the way that flood risk is communicated on its website and to raise understanding within the community of their flood risk and the way that this is presented. On request, the EA can supply specific flood risk information to property owners that can be passed on to insurance companies.

Key

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