Frampton on Severn

Existing defences and probability of flooding

The length of the Gloucester and Sharpness Canal from grid reference points SO 74354 07882 to SO 74194 06626 and its associated mechanisms, together with the earth embankment at Slimbridge that ties into the canal and the earth embankment on Saul Warth that ties into high ground, are the formal tidal flood defences for the village of Frampton on Severn. The remainder of the canal acts as high ground. The risk of tidal flooding to properties in Frampton on Severn is considered to be a 1 in 200 chance or less in any year.

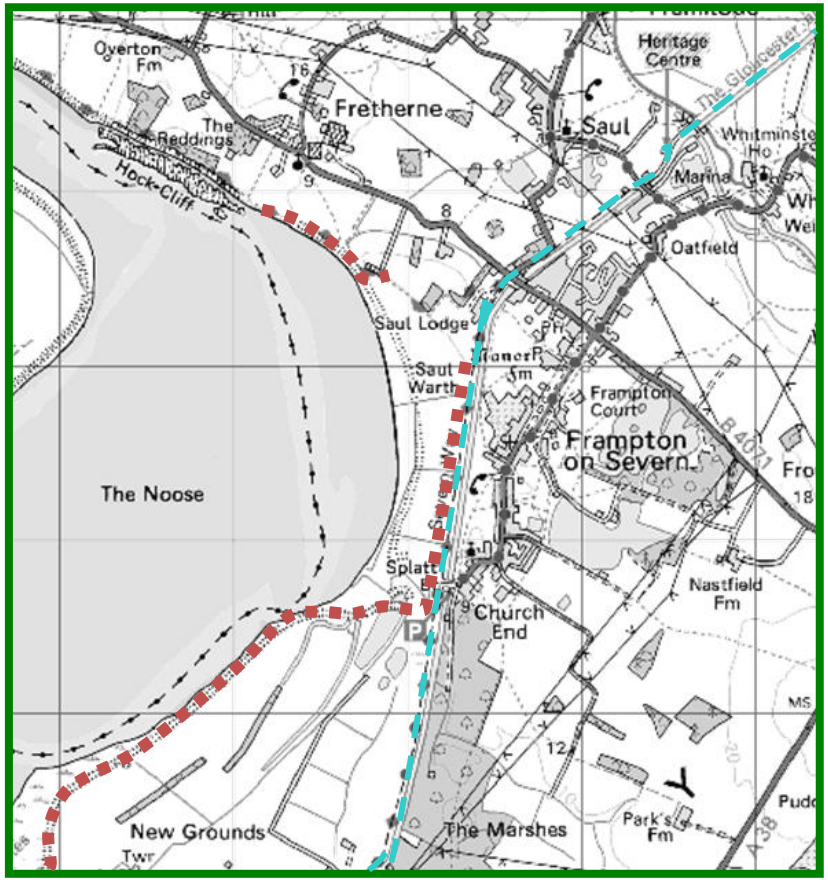
As in many parts of the estuary there is a natural tendency towards erosion along the Frampton and Saul Warths. The outer warth provides some flood protection to the lower lying inner warth land in front of the canal. If the outer warth is eroded it may mean the inner warth land is more frequently inundated by the tides.

Sea levels are likely to rise, but the high level of the canal embankments will, with maintenance, continue to provide a 1 in 200 year standard of protection against tidal flood risk into the long term future.

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.



What can be done now and in the future?

The earth embankments at Slimbridge and Saul Warth are in good condition and should provide a high standard of protection into the long term. The EA intend to carry out maintenance as needed on the embankment (as funds allow) to ensure continued protection to properties at Frampton on Severn. Please see the Supporting Information for further explanation of EA maintenance and funding.

The EA and the Canal and River Trust (CRT) intend to continue to regularly inspect the length of canal that acts as a formal tidal flood defence. If any issues are identified that may result in increased flood risk to Frampton on Severn, the EA and CRT will work together to address the concern. Inspection reports will be made available to Frampton on Severn Parish Council.

The potentially more frequent inundation of the inner warth land will be monitored to ensure it does not impact on the integrity of the western canal bank or the discharge of surface water from Frampton on Severn.

How these options were reached

The canal embankments provide the main tidal flood defence for Frampton on Severn. They are in good condition and their existence should provide a high standard of flood protection into the long term future.

The high number of properties protected by the canal means there are high economic benefits for ensuring the continued integrity of the defence.

Ongoing local 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 working with the Frampton on Severn community to provide reassurance of the integrity of the canal embankments and their suitability for functioning as a flood defence.

Key

Existing defences referred to in text

Gloucester and Sharpness Canal