

Stokesley Flood Alleviation Scheme

August 2018

We are investigating options for maintaining the standard of flood protection to residential properties and businesses in Stokesley.

Stokesley currently benefits from flood protection provided by the Stokesley Flood Diversion Channel built in the 1970s.

Stokesley Flood Diversion Channel

Built in 1978, the diversion channel connects the River Leven to the Eller Beck. A penstock at the northern end of the Flood Diversion Channel, is normally left partially open to maintain the flow of water along the River Leven through Stokesley. When we expect there to be flooding to property, the penstock is closed and all flow is diverted to the Eller Beck, which re-joins the River Leven further downstream.



Stokesley diversion channel in action, shortly after it was built in the 1970s

The diversion channel was built to reduce the risk of flooding to properties in Stokesley. In the 75 years prior to the construction of the diversion channel, there were 13 recorded flood events which affected homes in Stokesley. Since the construction of the diversion channel, no significant flood events have occurred.

The diversion channel is starting to suffer from frequent bank erosion and a build-up of silt is reducing the capacity of the channel. We are looking at ways to continue to protect properties at risk of flooding in Stokesley.

What have we done so far?

Ground Investigations

In July 2018 we carried out ground investigation surveys along the diversion channel, River Leven and Eller Beck. These surveys allowed us to gather up to date topographical (ground level) data, and tell us what materials make up the ground beneath. This data will be used in our flood risk modelling to help consider potential options.

What's next?

Updating our Flood Risk Model

We are working with consultants AECOM to produce a detailed flood risk model for the River Leven and the Eller Beck.

The detailed flood model will be used as a baseline to:

- simulate floods with different intensities and durations, improving our understanding of the potential impacts of flooding in Stokesley, and
- assess various flood defence options

Once we have a shortlist of options, we will carry out a cost benefit analysis to understand which options are financially viable, and what benefits each option will provide.

Identifying a Shortlist of Options

Some of the individual options being explored include:

- Refurbishment of the diversion channel and replacement of the diversion channel gate
- Increasing the height of the flood bunds along Eller Beck near the industrial estate.
- Creating flood storage areas

We are also looking at combinations of the above options.

How can I find out more information?

Once we have further details, we are keen to discuss these options with you. We expect to be in a position to hold a community drop in event in October 2018.

If you would like more information at this stage, or have a specific question – just get in touch with Project Manager, Paul Eckersley at paul.eckersley@environment-agency.gov.uk