

York Flood Alleviation Scheme

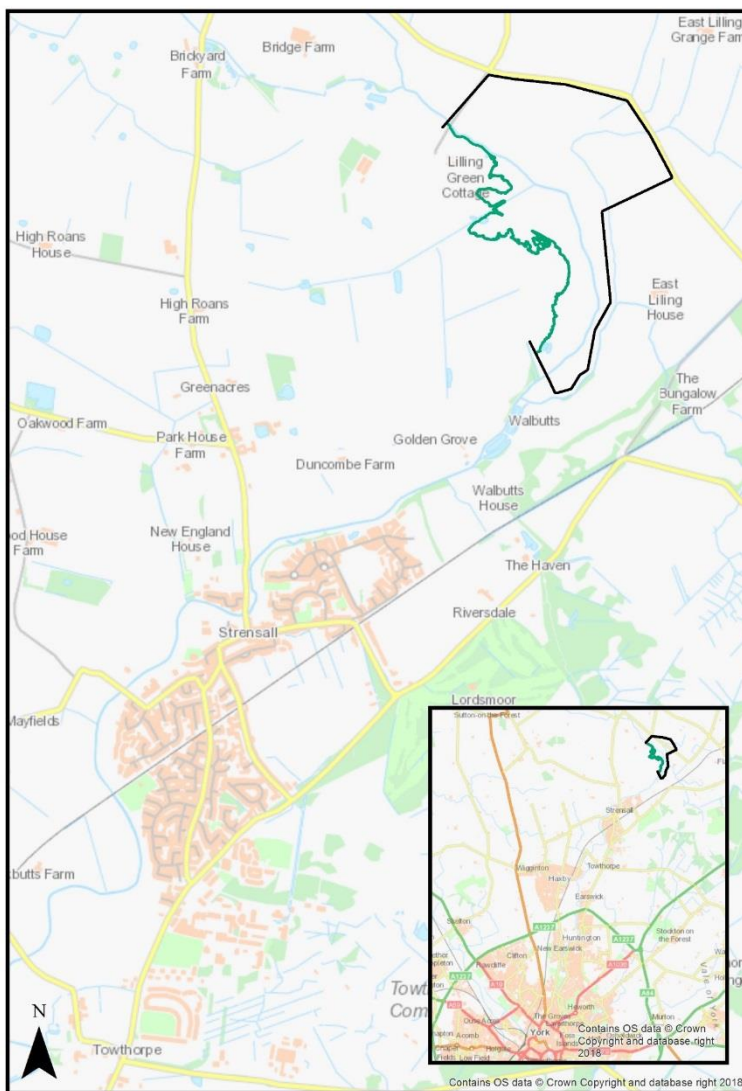
Update on the Foss Storage Area

May 2022

What is the York Flood Alleviation Scheme?

Following the floods of December 2015, the government allocated an additional £45 million to the Environment Agency to better protect 2,000 properties in York from flooding. Since then we have been working in partnership with City of York Council (CYC) to design and build new, improved flood defences. This has involved exploring many different options for reducing the risk of flooding at different locations across the city and in surrounding areas. As part of this programme, we have investigated ways to store flood water upstream of York on the River Foss in order to 'slow the flow' and reduce the impact of flooding in both York and Strensall.

Reducing flood risk along the River Foss



Our flood modelling shows that there are 490 properties along the Foss at risk during a severe flood. Whilst the Foss Barrier provides protection for some homes near to the barrier, the effect of this is reduced upstream and there is still a risk of flooding extending up as far as Strensall. However, options for reducing flood risk in these neighbourhoods are extremely limited; in such densely populated urban areas, traditional flood defences would cause enormous disruption to local communities and be extremely expensive and difficult to construct.

As an alternative to this, we have developed plans for a flood storage area upstream of York. This will be located 2 kilometres northeast of Strensall, at the site shown on the map opposite. This site meets very specific requirements for a flood storage area in terms of size, geography and hydrology. Its location on the River Foss and proximity to York make it ideal for a flood storage area and the natural shape of the landscape means that it will provide protection for many properties downstream.

In contrast to other physical flood defences, a flood storage area can be built at some distance from the communities it protects and therefore have minimal impacts during construction and operation.

Figure 1: Location of the Foss Flood Storage Area



During a flood, the flood storage area will temporarily hold back water in the river, helping to reduce peak flows downstream. Unlike a reservoir, it will not store water permanently on the site; it only fills up for short periods during extreme weather events and is designed to be dry in normal weather conditions. This is because it has a specially designed control structure - a flow control - which enables water to flow through it in normal conditions.

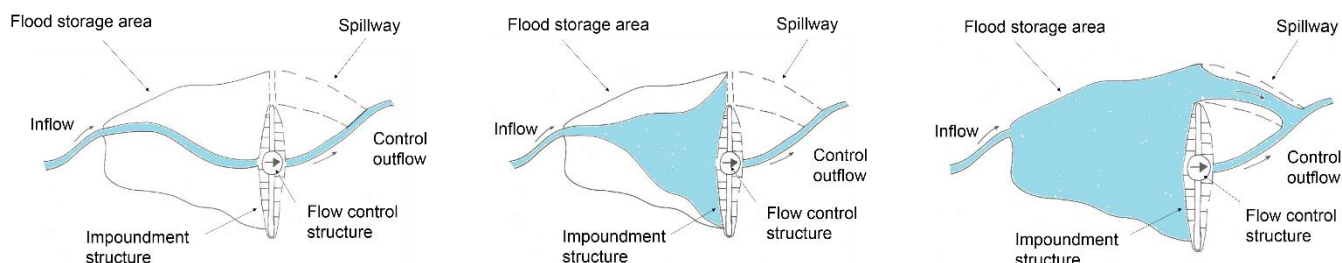


Figure 2: Diagram of how a flood storage area works

What happens now?

Having obtained planning consent for this scheme from both CYC and Ryedale District Council in 2020, our contractors, BAM Nuttall, have now started work on site. Construction of the flood storage area will take place over two years, with a pause in the winter months when the ground is too wet for work to continue.

Our contractors are currently constructing an access track to the site and a compound to provide facilities for staff working there. They will then begin work on building the control structure and spillway (overflow channel) at the bottom of the storage area. If weather conditions permit before winter sets in, they will also start building the embankment, using locally sourced clay.

This means that residents and visitors will see earth movements on the site and there is likely to be some increase in local traffic as plant, equipment and staff move onto it on a daily basis. Since we are able to use the local clay on site to construct the embankment, the need to import materials from outside the area is greatly reduced. This means there won't be as many heavy vehicles on site as normally seen for this type of project. This will continue over the summer and into the autumn. As there is currently a road closure in place on the road southeast of West Lilling, all our construction vehicles will be following the diversion route which has been put in place.

Footpath Closures

The footpaths that run across the site (Centenary Way and Ebor Way) will remain open during the full construction period, although there will be a short length temporary diversion at Ings Lane from mid-June to mid-August 2022.

This short stretch of Ings Lane (shown in the map to the right) lies below potential worst case scenario flood levels. We will be raising the height of the road here to maintain access for residents during a flood event. We will be temporarily diverting the lane (shown in purple) whilst work to raise the road takes place, allowing the public to continue to enjoy the use of this right of way. Clear signage will be put in place in advance of the diversion.



Figure 3: Map of the Ings Lane footpath closure, mid-June to mid-August 2022





Figure 4: The Foss on the project site, prior to construction starting

Benefits of the scheme

In addition to improving flood protection for 490 properties between Strensall village and neighbourhoods in York, the scheme will create valuable new wetland habitats, including two shallow ponds (where the clay for the embankment is removed from). The banks of the River Foss will be reshaped to reduce the amount of sediment in the river and so improve water quality. Once the scheme is built, some of the surrounding land can continue to be farmed and so will remain in productive use.

Although the work will require the removal of some trees and hedgerows, for every specimen we have to fell, we will replant at a ratio of one to five. You can read more about our compensatory tree planting in the York FAS Tree Strategy at:

<https://consult.environment-agency.gov.uk/yorkshire/yorkfas/>

Engagement

Over the last few years we have produced briefing notes and held public meetings with local groups to inform residents and other interested stakeholders about our plans for the flood storage area. We will continue to provide information during construction. If you have any questions or concerns about the scheme, you can contact the site manager of the scheme or the Environment Agency's project manager, using the contact details given below.

Find out more

To find out more about the Environment Agency's plans for the Foss Flood Storage Area or the York Flood Alleviation Scheme in general, you can check out our website:

<https://consult.environment-agency.gov.uk/yorkshire/yorkfas/>

If you would like contact us about the scheme or receive an electronic copy of this newsletter, you can email us at: yorkfloodplan@environment-agency.gov.uk

For enquiries or complaints about the scheme, please use the following contacts:

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