

Humber – keeping you informed

March 2016

This newsletter provides an update on work taking place and/or planned to help reduce the risk of flooding to people and properties around the Humber estuary.

Surveying the estuary's bed

The channel in the Humber is very dynamic as large amounts of sediment within the estuary are repeatedly reworked by wave action, tides and other currents. Since February, our Geomatics Team have been surveying the bed of the estuary from the Humber Bridge up to Boothferry Bridge on the Ouse and Keadby on the Trent. This is one of the most dynamic areas of the estuary. We'll use this data to better understand how the estuary is changing, helping us to manage the risk of erosion, to map changing habitats and to better understand interactions in the estuary system. We are using the boat in the below picture to undertake the survey. The survey data capture will be completed in April.



We are also starting a project to build a new water level model of the estuary. We will investigate the extreme still water levels around the estuary, the interconnectivity of water levels, and the effects of waves and surges on water levels.

North bank

Hull Frontages: The tidal flood defences protecting the city of Hull and the adjacent surrounding area form a complicated system that has developed over many years. In 2008 the Humber Flood Risk Management Strategy identified that some of these defences required further investigation into their condition and the level of protection they offer.

Our survey work and updated flood modeling has identified which defences we need to focus on along the city frontage. We are looking to deliver a programme of improvement works, in collaboration with landowners. We have, therefore, started to talk to those with an interest in improving these defences to understand what the best solutions might be and securing the necessary funding to enable works to start.

We hope to have all necessary approvals in place by summer 2017 to enable works to start early 2018. The expectation is that construction works will take approx 3 years to complete. Linked to this project to improve the Humber defences in Hull, we must create additional habitat areas to ensure we continue to meet the demands of environmental legislation.

Hull River Defences Package: We are planning on improving the river defences through the city of Hull, so that they continue to provide long term protection from the risk of flooding from the River Hull. We are working in partnership with Hull City Council to seek funding opportunities with the aim of providing a scheme which will contribute towards growth and regeneration on the river front in the city. The business case for the scheme has been submitted and we hope to have financial approval in place by the end of April. We are working with our contractor to develop a programme for the construction work and expect to be starting work on site this summer.

Albert Dock: During the tidal surge in December 2013, the Humber Estuary overtopped the dock side at Albert Dock in Hull, flooding 300 properties. Construction of 1.6 kilometres (1 mile) of permanent walls started in November 2014 to replace the temporary defence installed after the flooding and these walls were completed in July 2015. Sealing up of Dunston Culvert (a redundant Yorkshire Water drain) was completed in September and the Trans Pennine Trail was re-opened at the end of October 2015. All reinstatement works were completed in mid December 2015.



An aerial view of some of the new flood walls at Albert Dock

South bank

South Ferriby: Plans are progressing well for the refurbishment of the tidal doors at Ferriby Sluice, West Drain and East Drain. We have now placed the order for the tidal doors with a specialised timber door supplier. We have also started consultation with Historic England as the tidal lock, sluice gates and West Drain structures are a designated Scheduled Ancient Monument. This means that the site is a national important archaeological site. Changes are allowed to monuments but they should be protected for future generations. Expected installation of the tidal doors is summer 2016 dependent on weather.

We are continuing to progress the scheme to improve approximately 2km (1.2 miles) of tidal flood banks at South Ferriby. Ground investigations along the existing flood embankment are due to take place in April 2016. These are routine site investigations as part of the scheme which assesses the ground conditions of the embankment. We have had further constructive meetings with local councillors, North Lincolnshire

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Council and CEMEX, who are supporting us with their local knowledge. We are on programme to complete construction in 2019. Changes in programmes are always possible, but we are committed to delivering the best scheme we can for South Ferriby and Winteringham Ings. We are also continuing discussions with beneficiaries on future contributions to the overall scheme.

Port of Immingham: We continue to work closely with both North East Lincolnshire Council (NELC) and Associated British Ports to develop a scheme to reduce the risk of flooding to the port, national infrastructure and adjacent community. NELC are leading the project whose consultants are currently producing a business case due to be submitted in April. The business case should secure the government funding contribution of £2.5 million. Current programme is to replace the port's tidal lock doors in spring/summer 2017. NELC continues to explore other funding possibilities through the Greater Lincolnshire and Humber Local Enterprise Partnerships and EU funding streams.

Killingholme Marshes: We are progressing a scheme to stabilise a short section of flood defence near to Killingholme Haven. We expect that this work will be completed by summer 2016.

Keadby terminal outfall sustainment scheme: Keadby terminal outfall [pumping station and gravity sluice] plays a key role in managing the drainage of the River Torne and associated watercourses. The outfall was completed in 1938 and has been refurbished a number of times. However, the pumping station has exceeded its design life with a significant number of components now obsolete and increasingly subject to breakdowns. By current standards the pumping station has a large carbon footprint, is inefficient to operate and is non compliant with the Eel Regulations and Water Framework Directive. A comprehensive solution is required to sustain the operational capability of the terminal assisted outfall into the future.

Supported by the recommendations of the Isle of Axholme Strategy, the project consists of 2 elements:

- Interim capital maintenance; an essential package of measures to ensure the asset continues to operate effectively over the next 5 years. Key items are replacement of 2 pump engines and refurbishment of other critical components. This work started in March and will be completed over a period of 9 months.
- A longer term sustainment scheme; this will consist of a major refurbishment or replacement of the existing asset over the next 5 years. The current focus of this work is option investigation aiming to identify a preferred option that addresses all project objectives. A business case is programmed to be delivered within the next 12 months with detailed design and construction following. Scheme completion is planned by 2021.



Keadby pumping station



Pumps inside Keadby pumping station

Isle of Axholme: We are continuing to work closely with the Doncaster East Internal Drainage Board, Isle of Axholme Water Level Management Board, North Lincolnshire Council and Doncaster Metropolitan Borough

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Council regarding the future management of the Isle of Axholme. There are currently 17 schemes within the Isle due for completion by 31 March 2021, of which one has already been completed. Collectively the work will help to manage flood risk for over 20,000 properties, 36 kilometres (22.4 miles) of critical infrastructure and over 46,000 hectares of agricultural land. A multi organisation governance structure has now been put in place to drive this important piece of work forward.

Burringham: After a summer of investment and engineering work, the majority of the new flood defence in Burringham has bedded in and is providing protection for the community. Huge metal piles were driven into the ground to provide a strong defence against flooding, and the final piece of work is to let the few remaining tiny gaps fill naturally. Over time the puddles seen behind the defence will disappear but currently during high tides we are still experiencing some minor seepage. The seepage is not a flood risk, and at most is likely to cause some inconvenience to those walking on the path or some puddles in the road. As a temporary measure, we have placed sandbags to restrict this minor flow and are currently looking at ways to control this seepage water.

Are you prepared for future floods?

Although flood defences reduce the likelihood of flooding, the risk can never be removed entirely. Flooding can happen at any time and we advise people to take simple practical steps to help reduce the impact of flooding to their homes or business.

- Make sure you are registered to our free flood warning service, Floodline.
- Get the most out of the service by registering the maximum 5 ways to receive flood warnings. Use a combination of mobile phone numbers, landlines and email addresses. Make sure your contact details are accurate - if you've moved house, changed mobile phone number or got a different email address, please let us know. Don't risk not getting the message. Check your registered details by calling Floodline on 0345 988 1188. To make a flood plan for your home call Floodline or visit www.gov.uk/floodsdestroy

Contact

If you have any questions, please contact our national customer contact team on 03708 506 506 (landlines are charged the same as a local geographic call but mobiles may vary) or email enquiries@environment-agency.gov.uk. Alternatively, visit www.gov.uk/flood or call Floodline on 0845 9881188 or 0345 9881188. Follow us on Twitter [@EnvAgencyAnglia](https://twitter.com/EnvAgencyAnglia), [@EnvAgencyYNE](https://twitter.com/EnvAgencyYNE) or [@LincsOpsEA](https://twitter.com/LincsOpsEA)

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