York Flood Alleviation Scheme



January 2023

Update for March's Executive Decision Session

This is a summary of the achievements over the last 7 years on the flood alleviation work in York, as well as providing information on the programme and expected timelines for delivering the remaining work. In this update we have provided:

- 1. Summary of achievements the Programme
- 2. Engagement highlights
- 3. Our response to January Floods
- 4. Programme information tables
- 5. Map of the York Five Year Plan flood cell outlines

1. Summary of achievements across the Programme

Following the floods of December 2015, the government allocated additional funding to the Environment Agency to better protect 2,000 properties in York, including upgrading and refurbishing the Foss Barrier and its surrounding infrastructure.

Below are some key figures which highlight our achievements.



2. Engagement highlights

Throughout the delivery of the York Flood Alleviation Scheme, we made efforts to engage proactively with the public and all other interested stakeholders on the plans and progress of our works. We have adhered to the following engagement principles:

- We will be proactive and transparent and ensure that our information is accessible to the public and other interested stakeholders
- We will use the most appropriate methods and tools of engagement dependent on the audience and key engagement objectives
- We will make time to involve people properly
- We will utilise key dates in the programme as opportunities for targeted engagement
- We will utilise opportunities to engage, influence and build strong relationships
- We will be honest, open and clear about what we can and cannot do to ensure that realistic expectations are set with the public and other stakeholders
- We will act upon information received from, and provide feedback to, our stakeholders
- We will keep internal stakeholders and colleagues informed of our activities

Below are some key figures which highlight our efforts and success with engagement.



3. Our response to January Floods

Following the Met Office's announcement, that 2022 was the hottest year on record for the UK with average annual temperatures reaching over 10°c for the first time, January saw parts of the country in a cold snap with snow seen in places. Freezing temperatures were followed by significant rainfall which caused flooding across parts of the country including here in Yorkshire.

The Ouse in York peaked over the Weekend of 14/15th January, reaching 4.1m at the Viking recorder. It is estimated that our defences, including those newly completed and upgraded, helped protect around 600 properties from flooding.

Here are some images taken from the Skeldergate and Clementhorpe areas in York.



4. Programme Information Table

Capital Schemes being delivered

Flood Cell / Scheme	Estimate d total cost (£k)	No. of propertie s better protected (approx.)	Brief description	Expected completio n
B4 - Scarborough Bridge to Ouse Bridge (Right Bank)	2,555	39	A new flood wall along Leeman Rd from Westgate Apartments to a new embankment in the grounds of York City Rowing Club, with demountable flood barriers across the main and second entrance to the Memorial Gardens. A new, larger flood gate under Lendal Bridge. Raised height to existing flood wall along North St with replaced flood gates, including increased width to northernmost gate to improve pedestrian flow.	Completed Feb 2022
B8 - Clementhorpe	7,717	135	A new flood wall in front of Waterfront House. Raised steps between Waterfront House and Dukes Wharf and raised road beside Dukes Wharf. A new flood wall and flood gate at Rowntree Park Caravan Site. Raised height of existing flood wall at Roomzzz Hotel. A new flood wall at the top of the steps between Postern Close and Postern House and raised wall corners at these properties. A new bi-fold floodgate on Clementhorpe Road and a 240m long, up to 6m deep underground seepage cut- off along Terry Avenue.	Completed Sep 2022
B10 - Clifton & Rawcliffe	20,600	140	Increased height of the existing barrier bank and extended at both northern and southern ends. A wider 'footprint' of the bank to reduce the angle of the slope and so reduce the risk of bank slippage in the future. A new pumping station within the barrier bank to control water levels in Blue Beck storage lagoon.	Nov 2023
B11 - Coppins Farm to Scarborough Bridge (Left Bank)	3,665	156	Raised height of the flood embankment in St Peters School fields. A new transition wall between the embankment and the development at the end of Almery Terrace. New floodgates and glass panels to increase the height of the flood defence along Almery Terrace. A new flood gate at the top of the Almery steps and piling within the Network Rail embankment.	Completed May 2022
B12 - Scarborough Bridge to Lendal Bridge (Left Bank)	2,950	57	Increased height of the existing flood wall from Scarborough bridge to Museum gardens. This includes new flood gates and glass panels along Earlsborough Terrace and Esplanade Court, a new flood gate near Scarborough Bridge and new demountable panels for the Marygate flood gate. Increased height of the embankment within Museum Gardens and also extended at southern end. This includes terracing of the embankment adjacent to the Hospitium to preserve the rare True Service tree.	Revised date TBC

C1 - Bishopthorpe	3,390	170	A 180m long flood wall along Chantry Lane with a 6m deep steel barrier underground cut off. A flood gate across the bottom of Chantry Lane. A new manhole chamber with a penstock mechanism.	Completed Apr 2022
F8 /F10/F11- Foss Storage Area	17,526	490	Construction of a new embankment with outfall control structure upstream of York, designed to hold up to 1million m ³ during times of extreme rainfall. Once downstream river levels recede, the stored water will be released at a controlled rate. The creation of two ponds connected to the River Foss, together with improvements to the river channel, will result in new wetland habitats to support wildlife.	Nov 2023
Foss Barrier	38,000	1600	Greatly increased pumping capacity with replacement of all 8 pumps, including new infrastructure and new power supplies. In addition to 2 independently sourced High Voltage electricity supplies the barrier has 5 new back-up generators to maintain operation of all eight pumps at maximum capacity in the event of catastrophic power failure. All vulnerable infrastructure raised to first floor height. A new taller barrier gate, lifting equipment and housing.	Completed Apr 2022

Capital Schemes still in the design phase or being delivered by our partners

Flood Cell / Scheme	Description	Being delivered by	Stage
B9 – Germany Beck	City of York Council (CYC) led project with multiple benefits including increased flood protection to Fordlands Road and the A19 as well as reducing flood risk to local homes and businesses. Initial design has been completed and the planning submission has been made.	CYC	Design
F1 – Tower Street	We are investigating options on how to provide flood protection along Tower Street to prevent exceptionally high flood levels on the River Ouse bypassing the defences within St Georges Car Park and entering the Foss Basin which would pose increased flood risk in the lower Foss. This scheme will initially involve raising of the wall between St George's car park and the Foss Basin tying into Skeldergate Bridge.	Environment Agency	Planning

Property Flood Resilience (PFR)

Flood Cell	B7	B8	B12	B15	B16	C1	C2	C3	F8	Total
1 Participation	12	27	3	27	44	2	9	62	2	188
2 Gertting in touch	12	27	3	27	44	2	9	62	2	188
3 Property Visits	12	27	3	26	44	2	9	61	2	186
4 Viewing Products		27		1	44		3	26		101
5 Choosing products		27			44		2	18		89
6 Costs reviewed		27			44		2	18		89
7 Signing Documents		27			44		2	18		89
8 Ordering Products		27			44			13		84
9 Installing Products		27			44			9		80
10 Training and handover	0	27	0	0	44	0	0	0	0	71

Key No.

Number of properties

Stage complete

Stage initiated/ongoing

5. Map of the York Five Year Plan Flood Cell Outlines

