

# York Flood Alleviation Scheme

April 2021

## Update for May's Executive Decision Session

This is an update of the progress made over the last three months on the flood alleviation work in York, as well as providing information on the current status of our work and expected timelines for delivering the remaining work. In this update we have provided:

1. A summary of Storm Christoph
2. Summary of city wide flood alleviation activities
3. Next steps
4. Programme information table
5. Map of the York Five Year Plan flood cell outlines

### 1. Storm Christoph January 2021

York experienced some flooding in the week commencing the 18 January 2021, as a result of heavy downpours over a prolonged period of time. The peak in York was 4.63m in the early hours of Friday 22 January 2021, which is below the level of our defences. We mobilised to provide support to local communities and worked closely with our professional partners.

A number of riverside properties were impacted along the River Ouse through York. These properties are in areas at high risk of frequent flooding. As such, they receive notifications through our flood warning systems and their owners are typically well versed in their responses to flood events. Other undefended locations were protected by temporary defences put in place by City of York Council in line with the Multi Agency Flood Plan. One of these areas is Clementhorpe, where construction work on new flood defences has since started.

Along the River Foss, no properties were flooded, although water did reach riverside gardens and we worked with City of York Council to deploy sandbags. The cause of this flooding will be addressed by the new Foss Flood Storage Area which will begin construction this year.

### 2. Summary of city wide flood alleviation activities

#### Engagement activity

Due to National Lockdown being reinstated after Christmas our Community Hub has remained closed and we have once again been limited to remote engagement only. Since January we have:

- Prepared and shared 6 newsletters, either city-wide or to specific flood cells, to a combined mailing list of almost 900 recipients;
- Sent 75 letters to residents to notify them of works scheduled to begin in their area;
- Continued to share regular updates via our social media pages and our webpage;
- Held numerous virtual meetings with stakeholders throughout York;
- Prepared briefings for MPs; and
- Sought comments on a proposed diversion route from cycling groups in York, as part of the Scarborough Bridge to Ouse Bridge right bank scheme.

In addition, we receive and respond to correspondence on a daily basis via our York Flood Plan email account. On average we receive about 50 emails a week from the public.

## Flood Cells Update

### Foss Storage Area

This scheme, in the rural area 2km north of Strensall, will better protect 490 vulnerable homes between Strensall and the Groves area of York from flooding. It will also reduce flood risk to key transport routes and result in environmental benefits including tree planting, wetland creation and improvements to river bank habitat. Our planning application was approved by both CYC and Ryedale District Council at the end of 2020. Since then we have focused on discharging planning conditions and making preparations for construction to begin in May/June of this year, including necessary engagement.

### Foss Barrier

Work continues on the Foss Barrier upgrade with big steps taking the project forward earlier this year.

In the beginning of January a series of stoplogs were lowered into position across the Foss channel that would offer flood protection while the gate changeover took place. The work was delayed for a week due to flooding caused by storms Christoph and Darcy, but as soon as levels dropped, work continued and the new gate was successfully lowered into position on 28th January 2021.

The new gate is around 400mm higher than the old one and the new bridge structure came with the drive equipment already installed. Once complete the new gate will be operated by the same computer control system that manages the pumps.

### Scarborough Bridge to Ouse Bridge right bank (B4)

We have completed the majority of work in this flood cell to better protect 39 properties from flooding. We have increased the height of the flood wall and gates along North Street, built a new flood wall between Leeman Road and the Memorial Gardens, and installed demountable panels across the entrances to the Gardens. We plan to install a new flood gate under Lendal Bridge between the Easter and Summer school holidays this year, to minimise the impact of the necessary road closure on the community. A proposed diversion route has been created with the support of CYC and approval was given on 16 March 2021 for the planned route to be shared with cycling groups in York. Once the diversion route is agreed and we have obtained the environmental permit for the works, we can begin construction.

### Coppins Farm to Scarborough Bridge (B11)

We have completed the majority of work on increasing the height of the flood defences in this flood cell. We have extended and increased the height of the flood embankment in St Peters School fields, built a transition wall between the embankment and the end of Almerly Terrace. We have installed new gates and glass panels at Almerly Terrace, however we are still working with our contractors to make sure that the panels are within the seepage rate tolerance when fitted. The compound area has been taken down and once relevant permissions are in place, our contractors will return to install a short flood gate on top of the Almerly steps, and work on the Network Rail embankment to ensure it is flood proof.

This summer, once ground conditions are suitable, we will finish the landscaping and seeding of the new embankment.

### Clementhorpe (B8)

This flood defence scheme runs from Skeldergate Bridge to Rowntree Park, has an estimated cost of £7.7 million and will better protect 135 properties from flooding. The pre-commencement planning conditions were approved by CYC on 24 February 2021 and construction of the scheme began on 1 March 2021. We are currently building the construction compound. Our current assessment is that the scheme will take 18 months to complete. In order to enable construction work, a section of Terry Avenue running from Skeldergate Bridge down to Dukes Wharf will be closed from 12 April 2021.

### Bishophorpe (C1)

This scheme will provide a continuous line of defence and a high standard of protection against flooding - directly benefiting 117 properties, at an estimated cost of £2.5m. The scheme will include the construction of a 170m wall, with 6m deep piling underneath, a flood gate across the bottom of Chantry Lane, and a new manhole chamber with

a penstock mechanism. We are currently focussed on getting legal agreements signed with the contractor and resolving the Section 278 with CYC. We hope to begin construction of the scheme in late May/early June 2021.

#### *Clifton and Rawcliffe (B10)*

This scheme involves raising the height of the Clifton Ings Barrier Bank and extending it at both ends to reduce flood risk for 140 properties in York. Following approval of our planning application in 2019, we have continued to make progress towards discharging all planning conditions and finalise a contract for the work with our contractor. However, we have encountered several difficulties, including sourcing the right type of clay for the embankment, which has then affected the design of the scheme. We are still in the process of resolving these issues and recognise that the start date for this scheme is likely to be delayed as a result.

#### *Scarborough Bridge to Lendal Bridge (Museum Gardens) (B12)*

Our planning application to increase the height and length of the flood embankment in Museum Gardens was approved by City of York Council on 26 November 2020. This forms part of a wider scheme to increase the height of the existing flood defences in Marygate, the remainder of which we will do under permitted development. Building the compound area in Marygate carpark is due to start this May, with construction work on the embankment to follow in June. We will install glass panels and flood gates, similar to those we have installed at Almerly Terrace, on Earlsborough Terrace. We will increase the height of the flood wall between Esplanade Court and Museum Gardens with brick and install demountable panels. As part of this work, we will adjust the lip of the flood gate next to Scarborough Bridge to improve ease of access.

#### *Tang Hall Beck and Osbaldwick (F4/F5)*

Original proposals for this scheme were to re-naturalise approximately 800 meters of an existing culvert running underneath St Nicholas Fields nature reserve, reducing flood risk to over 250 properties. However the implications of legal requirements to treat all material removed from the site as waste (which would have created high levels of industrial traffic in a residential area for a prolonged period) have resulted in a review of the design. We are now investigating all other options for the scheme.

#### *St George's Field*

A project start-up meeting was held on 2 December 2020, with a project manager appointed to the scheme. We've had ongoing discussions with CYC since then. We are aiming for the wall raising and construction of a demountable cut-off on Tower Street to be carried out in 2021.

#### *PFR*

##### *Foss Confluence to Fulford (B16)*

We are near completion of installing individual bespoke measures at all eligible properties in flood cell B16. Once all the measures are fitted and all relevant checks have been complete we plan on engaging the residents in a series of activities to ensure they are fully equipped to be the best prepared for flooding. This includes knowing how and when to store, deploy and maintain their measures, what actions they can carry out to minimise impact of flooding and who to contact for information or assistance. A key component of future resilience to flooding is ensuring the residents have a home and community emergency plan in place. We are working with our colleagues in EA Flood Resilience and CYC Emergency Planning to plan and deliver these engagement activities.

##### *South Bank and Lendal Hill (B8 and B12)*

Most of the eligible properties in these two flood cells have already had initial surveys completed and these have been shared with the property owners. We are in discussion with our competent contractor to finalise a programme for surveying the remaining properties and confirming measures and installation in these flood cells.

##### *Skeldergate and Naburn (B7 and C3)*

We held online community engagement with residents from these two flood cells in June and December last year. We were hoping to be in contract by now with contractors to deliver the project. Unfortunately, we have faced complications with the contract process and are still working to ensure we deliver the value for the scheme.

In the meantime we are making some final adjustments to our new online resident questionnaire to ensure it captures all the relevant information and are hoping to send this to all eligible residents within these two flood cells in April.

### Tree Replanting

We have developed an interactive map to allow members of our community to suggest locations which may benefit from new tree planting. The process is simple whereby a pin can be dropped onto the map with opportunity to add any comments. Our Interactive Map can be accessed by navigating to the following web address:

<https://arcg.is/0CmKL4>

### 3. Next steps

- We will close part of Terry Avenue in order to enable construction for the Clementhorpe Flood Alleviation Scheme (B8). We expect the closure to begin on 12 April 2021.
- We expect to begin construction of the Bishopthorpe Flood Alleviation Scheme (C1) in early June 2021.
- We will carry out the final stage of construction for the Scarborough Bridge to Ouse Bridge right bank scheme (B4) replacing the Lendal Arch Flood Gate.
- Construction is planned to begin in Museum Gardens (B12) and on the Foss Flood Storage Area (F8, F10 and F11) in May/June 2021.
- Landscaping and seeding of the newly raised embankment behind St Peters School (B11)
- We are continuing the systematic rollout of PFR across the remaining flood cells, where eligible residents can benefit from up to £7,500 of bespoke measures to better protect their home from flooding.

## 4. Programme Information Table

Flood Cell	Estimated total cost (£k)	Full Business Case	Planning Permission	Construction Start and est. duration	No. of properties better protected (approx.)
B4 - Scarborough to Ouse Bridge (Right Bank)	2,555	Approved by Large Projects Review Group (LPRG) Apr 2019	Planning application was Approved March 2019	New Lendal Arch gate planned install Easter to Summer 2021	39
B7 - Queen's Staith and Skeldergate	PFR Budget	Approved by LPRG Apr 2019	Not required	TBC	50
B8 - Clementhorpe	7,717	Approved by LPRG Jun 2019	Planning application was Approved June 2020	Started March 2021. Planned duration of 18 months	135
B9 - Fulford	CYC to lead on delivery and funding				
B10 - Clifton & Rawcliffe	20,600	Approved by LPRG Jan 2020.	Planning application was Approved Sep 2019	TBC	140
B11 - Coppins Farm to Scarborough Bridge (Left Bank)	3,665	Approved by LPRG May 2019	Planning application was Approved March 2020	July 2019 – ST Peters School field	156
B12 - Scarborough Bridge to Lendal Bridge (Left Bank)	2,950	Approved by LPRG May 2019	Planning permission approved November 2020	Planned May/June 2021 until Jan 2022	57
B15 - King's Staith to Skeldergate Bridge	PFR Budget	Approved by LPRG Aug 2019	Not required	TBC	51
B16 - New Walk	PFR Budget	Approved by LPRG Aug 2019	Not required	Installation ongoing completion due Apr 2021	55

C1 - Bishopthorpe	3,390	Approved by LPRG Oct 2020	Planning permission granted August 2020	Planned May/Jun 2021, with a duration of 9 months	117
C2 - Acaster Malbis	PFR Budget	Approved by LPRG Aug 2019	Not required	TBC	14
C3 - Naburn	PFR Budget	Approved by LPRG Aug 2019	Not required	TBC	51
F4 - Tang Hall Beck F5 - Osbaldwick Beck	8,200 (Project options being reviewed.)	TBC	TBC	TBC	263
F8 - Groves to Haley's Terrace F10 - Haley's Terrace to Link Road F11 - Link Road to Ring Road	17,526	Approved by LPRG Dec 2020	Planning application approved by CYC and Ryedale Nov/Dec 2020.	Planned May/Jun 2021 18 months	490
Property Flood Resilience (PFR)	3,001	Approved by LPRG Aug 2019	Not required	TBC	See flood cells listed above.
F12 - Westfield Beck	3,533 (currently not funded)	Planned submission Apr 2021	TBC	TBC	56

## Key

Confirmed

Planned/expected

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

