

# York Flood Alleviation Scheme

December 2021

## Update for January'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 programme and expected timelines for delivering the remaining work. In this update we have provided:

1. Summary of activities per flood cell
2. Engagement highlights
3. Environmental benefits being realised as part of our work
4. Programme information tables
5. Map of the York Five Year Plan flood cell outlines

### 1. Summary of activities per flood cell

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

We have completed our work to better protect 39 homes and businesses and key transport routes in this area. This includes replacing the large flood gate under Lendal Arch and applying non slip treatment to the slanted floor plate the gate seals against to reduce risk of slips and falls.

#### Clementhorpe (B8)

Our flood defence work in this area is progressing well. In the last three months we have built a new flood wall between Postern Close and Postern House, prepared the foundations for the new gate which is being fabricated for Clementhorpe Road and made good progress with the underground seepage cut off.

Following concerns over vehicle movements, in particular vehicle speed on Butcher Terrace, a public consultation was conducted to ascertain the need and desire to install speed cousins. The results on the consultation were split and the decision from CYC Highways was to not install speed cousins at this time.

#### Clifton and Rawcliffe (B10)

Work in this area has started with the compound area and necessary access routes. The sustrans route diversion is underway, despite concerns over potential delays from high river levels. This work includes drainage improvements to the sustrans track and to the SSSI grassland. In addition, we have placed mesh fencing in key locations to help protect the endangered Great Crested Newt.

#### Coppins Farm to Scarborough Bridge (B11)

The glass panels to raise the flood defence height of Almerly Terrace flood wall are in the process of being replaced. The old panels have been removed and new seals are being fitted. The panels are being re-installed in the coming weeks.

The embankment raising work is complete and work to finish the flood wall is ongoing.

#### Scarborough Bridge to Lendal Bridge (B12)

Earth works within Museum Gardens are now complete, which includes the significant element of moving a manhole. Landscaping work to the newly raised embankment is ongoing and will continue in the New Year. Elsewhere, brick cladding of the newly raised flood wall sections is ongoing with glass panels and new flood gates along Earlsborough Terrace being installed. The new gate at Scarborough Bridge pedestrian access has been fitted with preparations made to remove the step.

## *Bishophorpe (C1)*

We have installed 175m of 6.5m deep steel sheet piles, which will minimise the passing of water through the ground and under the above-ground flood defences. We have also completed work to install two new manholes with associated pipe work, reconnecting the surface water system and allowing the removal of the temporary over pumping system. Work has started to construct the flood wall.

## *Foss Storage Area (F8, F10 and F11)*

Work has started on site establishing the compound, the base of which has been created. The team did experience some delays due to heavy rainfall but all planned work for this winter have been completed. The next phase of work is planned to start in spring 2022 once weather and ground conditions allow.

## *Foss Barrier*

Work to fully refurbish and upgrade the Foss Barrier is complete. There are some outstanding activities mainly concerning training and handover which is ongoing. An opening ceremony is being planned for March 2022.

## *PFR*

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

Installation of bespoke flood protection measures to all 44 properties involved in the scheme at this location have been completed.

### *South Bank (B8)*

The first batch of installations are booked in to take place from week commencing 6<sup>th</sup> December. We are continuing to engage with the remaining properties. Once agreements are in place the measures can be procured and installations booked.

### *Lendal Hill, Skeldergate, Naburn, Government House Rd, Kings Staith, Bishophorpe and Acaster Malbis (B12, B7, C3, B11, B15, C1 and C2)*

The contract to deliver PFR in these flood cells has had to be put to tender. The tender process is ongoing with planned date for our new contractor to start by March 2022. We are continually engaging with home and business owners to gather information on individual properties and flood history. We would like to encourage residents and businesses to fill in our questionnaires to allow us to process the information ready for the new contractors as soon as they start. This questionnaire is a pre requisite to having a free property survey which will determine suitability of the property and propose required measures.

## 2. Engagement highlights

### Reopening of our community Hub

Our community flood hub in York, set up in 2017, has reopened to the public.

The hub was created to keep the city's residents up to date with progress on our £45 million flood defence work.

Reopening comes with the launch of the Environment Agency's annual Flood Action Campaign, giving advice on how people can better prepare themselves this winter for the risk of flooding.



### Floodmobile - On the road to COP26

Ahead of COP26, members of the York team joined Mary Dhonau at a stop off as part of Flood Re's 'Floodmobile' tour to Glasgow, travelling across flood hotspots in the UK. The tour began in Worcester, travelling through York and Carlisle, arriving in Glasgow on Thursday 28 October for two days.

The objective of the tour was to highlight the need for adaptation and flood resilience measures. The tour aimed to help communities learn about different measures they can take to reduce their flood risk. Whilst 'net zero' is critically important, it is adaptation and resilience that should now take centre stage in tackling the climate crisis.

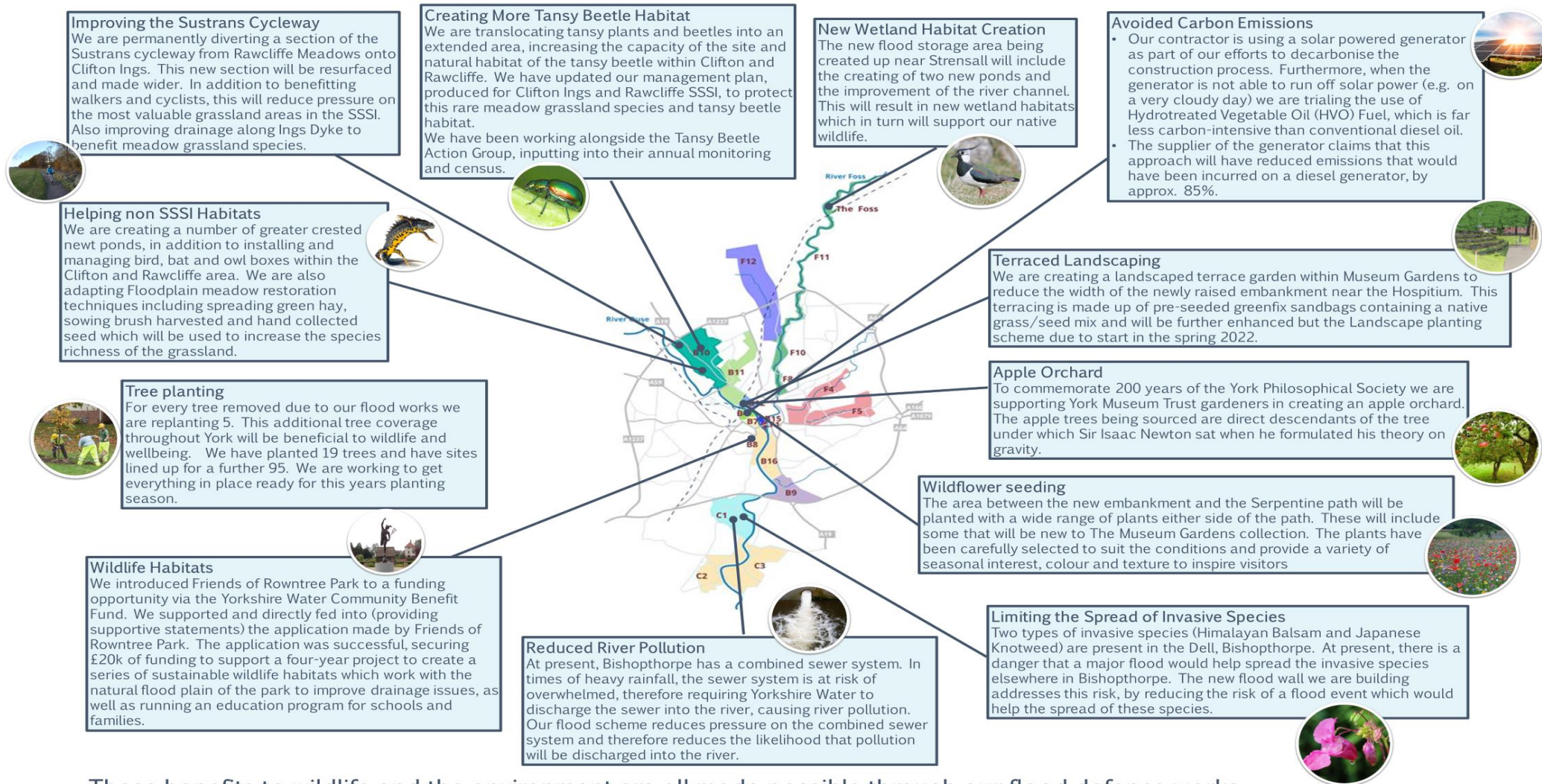
The Floodmobile is a vehicle showcasing 50 property flood resilience measures. It is part of the Ox-Cam Pathfinder project, which is one of three projects across the country aimed at increasing awareness about what homeowners and businesses can do to be resilient to the impacts of flooding.

Paul Stockhill, Helen Batt and Marilyn Sanderson met Mary Dhonau, aka 'Flood Mary', a flood resilience advocate and described as the 'human face of flood' to the British public. The tour also fell on the week marking the 21st anniversary of Mary Dhonau's first flood campaign, which started in Worcester.



3. Environmental benefits being realised as part of our work

Helping wildlife and people in and around York



These benefits to wildlife and the environment are all made possible through our flood defence works

creating a better place for people and wildlife



## 4. Programme Information Table

## Capital Schemes being delivered

Flood Cell / Scheme	Estimated total cost (£k)	No. of properties better protected (approx.)	Brief description	Expected completion
B4 - Scarborough 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.	Complete
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.	Aug 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.	Feb 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	Feb 2022

			southern end. This includes terracing of the embankment adjacent to the Hospitium to preserve the rare True Service tree.	
C1 - Bishopthorpe	3,390	117	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.	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 <sup>3</sup> 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.	Jan 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 is progressing well with planning submission planned for later this year.	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. We are working closely with the CYC Castlegate project team to ensure our projects align.	Environment Agency	Design
F4/F5 – Tang Hall and Osbaldwick Becks	We are in early conversations with CYC and other partners to investigate how to incorporate Natural Flood Management and Sustainable Drainage processes to reduce flood risk in this area.	Environment Agency	Design

F12 – Westfield Beck	The flood risk in this area is complicated as it is influenced by a number of sources. We have been in discussions with our partners to consider what options may be available. To mitigate flood risk here a number of factors need to be considered to ensure that any work does not have adverse impact on another flood risk source. We will continue to work with our partners to identify possible options and how any work may be delivered.	N/A	N/A
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5. Map of the York Five Year Plan Flood Cell Outlines

