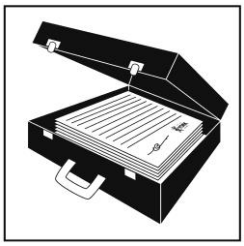

Notice of a public

Decision Session - Executive Member for Environment and Climate Change

To: Councillor Widdowson (Executive Member)

Date: Wednesday, 5 May 2021

Time: 3.00 pm

Venue: Remote Meeting

AGENDA

Notice to Members – Post Decision Calling In:

Members are reminded that, should they wish to call in any item* on this agenda, notice must be given to Democratic Services by **4:00 pm on Friday 7 May 2021.**

*With the exception of matters that have been the subject of a previous call in, require Full Council approval or are urgent, which are not subject to the call-in provisions. Any called in items will be considered by the Customer and Corporate Services Scrutiny Management Committee.

Written representations in respect of items on this agenda should be submitted to Democratic Services by **5.00 pm** on **Friday 30 April 2021.**

1. Declarations of Interest

At this point in the meeting, the Executive Member is asked to declare:

- any personal interests not included on the Register of Interests
- any prejudicial interests or
- any disclosable pecuniary interests

which he might have in respect of business on this agenda.

2. Minutes (Pages 1 - 2)

To approve and sign the minutes of the Decision Session held on Wednesday 7 April 2021.

3. Public Participation

At this point in the meeting members of the public who have registered to speak can do so. Members of the public may speak on agenda items or on matters within the remit of the committee.

Please note that our registration deadlines have changed to 2 working days before the meeting, in order to facilitate the management of public participation at remote meetings. The deadline for registering at this meeting is **5:00pm** on **Friday 30 April 2021**.

To register to speak please visit www.york.gov.uk/AttendCouncilMeetings to fill out an online registration form. If you have any questions about the registration form or the meeting, please contact the relevant Democracy Officer, on the details at the foot of the agenda.

Webcasting of Remote Public Meetings

Please note that, subject to available resources, this remote public meeting will be webcast including any registered public speakers who have given their permission. The remote public meeting can be viewed live and on demand at www.york.gov.uk/webcasts.

During coronavirus, we've made some changes to how we're running council meetings. See our coronavirus updates (www.york.gov.uk/COVIDDemocracy) for more information on meetings and decisions.

4. York Tree Canopy Target (Pages 3 - 18)

This report provides analysis of an appropriate tree canopy expansion target for York, which will contribute towards the city's net zero ambition, biodiversity and improve air quality.

5. York 5 Year Flood Plan Update (Pages 19 - 36)

This report provides the Executive Member with an update on the York Five Year Flood Plan and seeks feedback on its content.

6. Urgent Business

Any other business which the Executive Member considers urgent under the Local Government Act 1972.

Democracy Officer: Joseph Kennally
Telephone No- 01904 551573
Email- democratic.services@york.gov.uk

For more information about any of the following please contact the Democratic Services Officer responsible for servicing this meeting:

- Registering to speak
- Business of the meeting
- Any special arrangements
- Copies of reports and
- For receiving reports in other formats

Contact details are set out above.

This information can be provided in your own language.

我們也用您們的語言提供這個信息 **(Cantonese)**

এই তথ্য আপনার নিজের ভাষায় দেয়া যেতে পারে। **(Bengali)**

Ta informacja może być dostarczona w twoim własnym języku. **(Polish)**

Bu bilgiyi kendi dilinizde almanız mümkündür. **(Turkish)**

یہ معلومات آپ کی اپنی زبان (بولی) میں بھی مہیا کی جاسکتی ہیں۔ **(Urdu)**

☎ **(01904) 551550**

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City of York Council	Committee Minutes
Meeting	Decision Session - Executive Member for Environment and Climate Change
Date	7 April 2021
Present	Councillor Widdowson

24. Declarations of Interest

The Executive Member was asked to declare, at this point in the meeting, any personal interests not included on the Register of Interests or any prejudicial or discloseabale pecuniary interest that he might have in respect of the business on the agenda. None were declared.

25. Minutes

Resolved: That the minutes of the Decision Session held on 3 March 2021 be approved and signed by the Executive Member at a later date.

26. Public Participation

It was reported that there had been no registrations to speak at the session under the Council's Public Participation Scheme.

27. Friends of St Nicholas Fields – Service Level Agreement

The Executive Member considered a report which provided information on the Friends of St Nicholas Fields Service Level Agreement and sought approval for a three year funding agreement from 1 April 2021 to 31 March 2024 for Friends of St Nicholas Fields.

The Operations Manager, Public Realm and the Corporate Director for Economy and place were in attendance to present the report and respond to questions.

Officers emphasised the Council's long standing beneficial relationship of 20 years with the Friends of St Nicholas Fields. The organisation's track

record of generating capital for environmental improvements in the city was noted, as well as the work underway to improve the beck in Hull Road Park and others across the Foss catchment area which is important to the city's climate change and flood resilience measures.

The Executive Member noted the positive work of the Friends of St Nicholas Fields and identified them as a close partner of the City of York Council. She thanked officers for their participation and report.

Resolved:

i. The Executive Member approved the funding award set out in paragraph 6 and the associated service level agreement (SLA) set out in Annex 1.

Reason: To increase the wellbeing and quality of life of York residents.

Cllr. P. Widdowson, Executive Member
[The meeting started at 3.00 pm and finished at 3.03 pm].

Decision Session – Executive Member for Environment and Climate Change **5/05/2021**

Report of the Chief Operating Officer

York's Tree Canopy Expansion Target

Summary

1. This report provides analysis of an appropriate tree canopy expansion target for York, which will contribute towards the city's net zero ambition, biodiversity and improve air quality.

Recommendations

2. The Executive Member is asked to:

   1) Approve a 13% target for tree canopy cover in York by 2050

      Reason: Increasing the tree canopy cover to 13% from the current level of 10.76% will produce carbon sequestration, biodiversity and health benefits. A target of 13% is achievable when balanced against the capacity for tree planting within the unique landscape and setting of York.

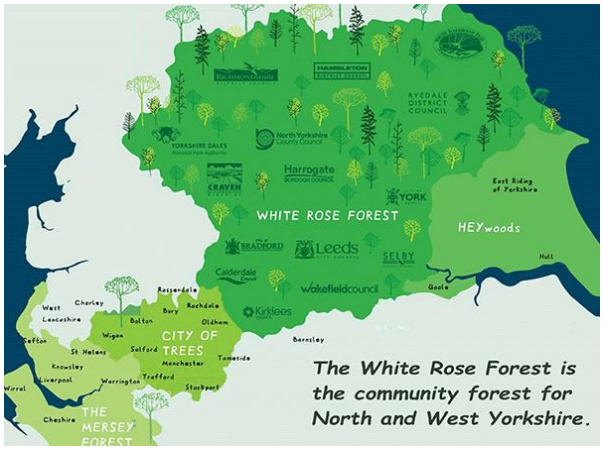
   2) Acknowledge that this target will form part of a wider ambition for the White Rose Forest across the region

      Reason: The regional ambition will be published in a report by WRF on 1st August 2021.

Background

3. City of York Council is a member of the White Rose Forest (WRF) partnership, a local authority joint venture hosted by Kirklees Council, which acts as the partnership's accountable body.

4. WRF is the community forest for North and West Yorkshire, one of four community forests in the north of England working together to create the larger Northern Forest that will stretch from Merseyside across Manchester and Yorkshire.



5. WRF are planting millions of trees in urban centres and countryside that will help manage flood risk, combat climate change, create jobs and provide happier and healthier places.

6. The WRF reports to a Director of Development (DoD) group comprising directors of development across each constituent local authority. In Nov 2019, DoDs gave the WRF Carbon Group responsibility to identify a methodology to calculate the region's tree canopy expansion target by 2050. Targets emerging from the methodology will form the basis of a carbon-led tree planting strategy for the WRF area known as the WRF Plan.

7. WRF commissioned a group of regional and national experts to assess the potential level of carbon sequestration that could be achieved through tree planting across the WRF area . Phase 1 of this study was completed in September 2020. The study set out to:

   - help local authorities understand the potential for carbon sequestration through woodland creation and to estimate the carbon contribution of existing trees outside of woodland and;

   - provide local authorities with evidence to help set carbon-led ambitions for 2050 tree canopy expansion.

8. On 14 December 2020 the study findings were presented to the districts to initiate individual district discussions on tree canopy ambitions for 'Phase 2'.

9. WRF set a deadline for districts to conclude these 'Phase 2' discussions and make recommendations regarding their district level tree canopy expansion target for respective DoD sign off by the end of January 2021. CYC have reached an agreement with WRF that we provide a suggested target for York in March 2021, for sign-off by the WRF Steering Group.

10. The WRF area target is due to be presented to the Yorkshire Regional Leaders' Group in spring 2021 with the WRF Plan being officially published on 1st August 2021 (Yorkshire Day).

Current Tree Canopy Cover & Regional Targets

11. Annex 1 details current district level tree canopy cover (ha/%). This shows:

    - That average tree canopy cover across the 9 districts is 11.96% against a national average of 13% (Across the expanded WRF area of all 13 districts the average is 10.95%)

    - Leeds and Kirklees are the only two districts with current tree canopy cover in excess of the national average at 17.16% and 15.17% respectively

    - Craven and Selby are well below this average at 5.37% and 9.94% respectively

    - York's current tree canopy cover is 10.76%

12. York currently has 2,926 ha of tree canopy cover, representing 10.8% of its total area. 60% of this canopy cover is made up of trees outside woodlands.

13. The declared 2050 tree canopy targets from 7 of the 9 original WRF districts shows a collective ambition to increase tree canopy cover to an average of 19.14% by 2050

Consultation

14. This report and associated documents has been developed in consultation with the White Rose Forest, Community Forest Trust and The Forward Plan Team within City of York Council.

Analysis

Developing an Evidence Based Tree Canopy Cover Target

15. Increasing York's tree cover from the current 10.76% of total area to 13% (national average) by 2050 would require 608 ha of new cover, or 21 ha per year.

Tree cover in 2050 (%)	New Canopy Cover (ha)	Annual increase (ha/yr)
13	608	21
15	1,150	39
20	2,506	86

16. Achieving 21 ha of tree planting every year in York would result in the annual removal of 1-2% of the estimated regional residual emissions in 2038, rising to 8-15% of residual emissions in 2050.

17. WRF has provided each district with data showing areas for potential low risk woodland creation. This data shows York to have over 8,000 hectares of assessed low risk woodland (LRW) land (low risk in terms of political and ecological constraints).

Area	Total Low Risk Area for Woodland Creation	
	Hectares	% of Total Area
York	8,245	30

18. Officers have combined this dataset with available information relating to heritage and land designation to identify existing and potential constraints and considerations to tree planting and canopy creation (Annex 3).

19. Following this process, it is estimated that a maximum of 6,500 ha of land identified by WRF has potential for tree planting. While further work is required to understand impacts on key views and desirable openness of land, further limiting the available planting area, the implication is that York could accommodate greater tree canopy cover.

20. The rate of viable delivery imposes a significant constraint on new canopy cover. The York Community Woodland project in West York aims to deliver 50-60 ha of new tree cover over the next two years. A 13% target for 2050 would require a similar level of growth every two years.

21. This target would result in an annual carbon sequestration rate at 2050 of circa 9,000tCO_2 per year; equivalent to around 1% of the regions total CO_2 emissions between 2020-2050.

22. This target is considered achievable when balanced against the capacity for tree planting within the unique landscape and setting of York.

Council Plan

23. The project accords with the Council Plan 2019-2023 in regard to the following core outcomes of the Plan:

    - A greener and cleaner city – Working towards becoming a carbon neutral city by 2030
    - Getting around sustainably – Cutting congestion, pollution and carbon emissions
    - Good health and wellbeing – Promoting active travel, healthy eating and improving air quality
    - Safe communities and culture for all – Supporting groups who are at greatest risk of climate change
    - Well paid jobs and an inclusive economy – Creating employment opportunities in the green economy

Implications

Financial – No financial implications associated with this report
Human Resources – None associated directly with this report
Equalities – None associated directly with this report
Legal – None directly associated with this report
Crime and Disorder – None directly associated with this report
Information Technology – None associated directly with this report
Property – None associated directly with this report
Other – None associated directly with this report
Risk Management – None identified in relation to this report

Risk Management

24. There are no known risks associated with this report.

Contact Details

Author:

Shaun Gibbons
Head of Carbon Reduction
Corporate Policy and Partnerships

Alison Cooke
Forward Planning Manager
Forward Planning

Chief Officer Responsible for the report:

Ian Floyd
Chief Operating Officer

Report Approved √ **Date** 13/04/2021

Wards Affected: **[**List wards or tick box to indicate all] **All** x

For further information please contact the author of the report

Background Papers:

Council Plan 2023

Annexes

Annex 1 – District Tree Canopy Ambition 2050
Annex 2 – UBoC/WRF Summary
Annex 3 – Mapping WRF Outcomes and Local Constraints

List of Abbreviations Used in this Report

CO_2 – Carbon Dioxide
DoD – Directors of Development
LRW - Low Risk Woodland
WRF – White Rose Forest

Annex 1. WRF District level tree canopy ambitions to 2050

Bradford	Square Metres	Hectares	2050 Target (Hectares)
Total Area	365213134.51	36521.31	
Canopy Cover	46313706.39	4631.37	Not yet provided
Percentage Coverage		**12.68**	

Calderdale	Square Metres	Hectares	2050 Target (Hectares)
Total Area	362737371.69	36273.74	
Canopy Cover	43221868.18	4322.19	6794.50
Percentage Coverage		**11.92**	**18.73**

Craven	Square Metres	Hectares	2050 Target (Hectares)
Total Area	1174871236.56	117487.12	
Canopy Cover	63062379.67	6306.24	
Percentage Coverage		**5.37**	**13%**

Harrogate	Square Metres	Hectares	2050 Target (Hectares)
Total Area	1304739349.92	130473.93	
Canopy Cover	137511106.21	13751.11	16501.33
Percentage Coverage		**10.54**	**12.65**

Kirklees	Square Metres	Hectares	2050 Target (Hectares)
Total Area	407247201.17	40724.72	
Canopy Cover	61787526.01	6178.75	8678.75
Percentage Coverage		**15.17**	**21.31**

Leeds	Square Metres	Hectares	2050 Target (Hectares)
Total Area	549902071.22	54990.21	
Canopy Cover	94369971.87	9437.00	18146.77
Percentage Coverage		**17.16**	**33.00**

Selby	Square Metres	Hectares	2050 Target (Hectares)
Total Area	600206604.80	60020.66	
Canopy Cover	59681708.31	5968.17	10365.49
Percentage Coverage		**9.94**	**17.27**

Wakefield	Square Metres	Hectares	2050 Target (Hectares)
Total Area	337497446.68	33749.74	
Canopy Cover	47620695.04	4762.07	6101.00
Percentage Coverage		**14.11**	**18.08**

York	Square Metres	Hectares	2050 Target (Hectares)
Total Area	271090262.74	27109.03	
Canopy Cover	29156927.99	2915.69	Not yet provided
Percentage Coverage		**10.76**	

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Informing a carbon-led tree planting strategy for the White Rose Forest

Interim report for the

Directors of Development

11th December 2020

UBoC UNITED BANK of CARBON

WHITE ROSE FOREST

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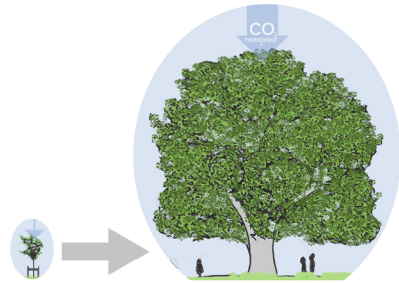
What is the potential contribution of woodland creation in your area to meeting net-zero?

Project aim:

To help the local authorities in the White Rose Forest understand the potential for carbon sequestration through woodland creation and to estimate the carbon contribution of existing trees outside woodlands.
To provide local authorities with evidence to help set carbon-led ambitions for 2050 tree canopy expansion targets.



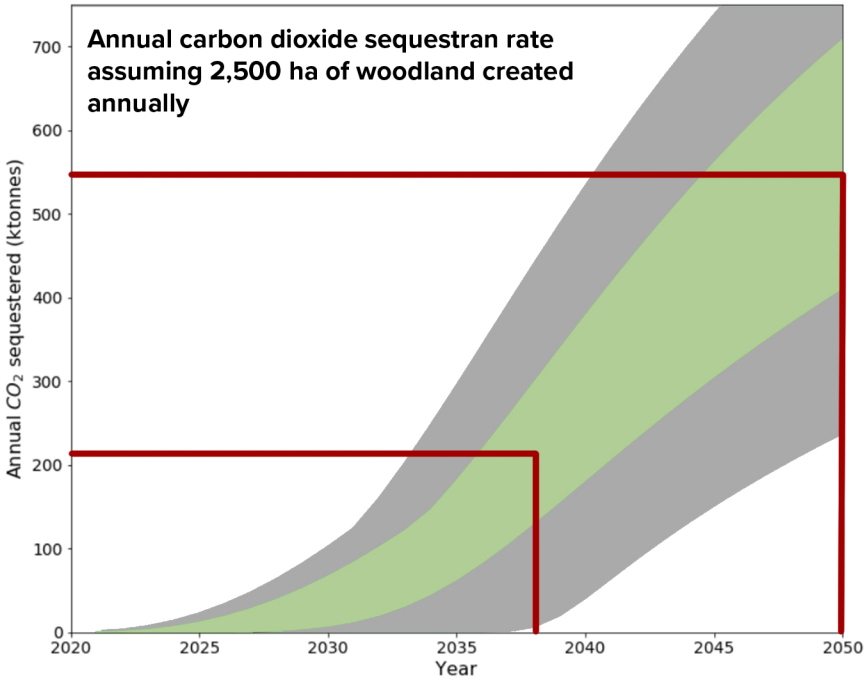
Key results:

Using tree growth rates specific to each local authority[1], the United Bank of Carbon modelled the potential sequestration benefits of woodland creation.

This interim report demonstrates potential carbon sequestration rates across the White Rose Forest under different planting rate assumptions. A tailored calculation for each local authority requires key additional information such as available areas for woodland creation, and local emission reduction pathways.

Example scenario 1:

Planting 2,500 hectares of woodland per year across the White Rose Forest region leads to an estimated annual sequestration rate in 2038 that is equivalent to 3-12% of the region's residual emissions if the emission reduction pathway is followed[2]. By 2050, this sequestration rate rises to between 58-100% of residual emissions[3].



Green shaded area represents average growth rates across a range of woodland mixtures.
Grey shaded area represents minimum and maximum expected growth rates.

The benefits of trees:

Trees provide the most cost effective method for removing carbon dioxide from the atmosphere. The graph illustrates that the benefits of newly created woodlands increases over time.

While the newly planted trees are growing, the existing canopy provides us with ongoing carbon sequestration. We estimated that trees outside woodlands[4] provide nearly half of the total canopy cover which is not fully accounted for in the national inventory of emissions.

Protection of the existing trees and a step change in woodland creation rates is required for the short-term and long-term mitigation of climate change.

1. Growth rates of trees based on Forest Research's Ecological Site Classification for 4 species mixes. Carbon sequestration rates based on Woodland Carbon Code Calculator v2.3, 2020.
2. Tackling the Climate Emergency: Emissions Reductions Pathway Report, 2020. WYCA. Assuming residual emissions in 2038 are 18-27% of 2018 emissions.
3. Assuming that the region's emissions continue to decline and reach 5% of the 2018 value by 2050. The UK Local Authority Carbon Dioxide Emissions, Department for Business, Energy and Industrial Strategy 2018.
4. Trees mapping provided by Blue Sky National Tree Map™ dataset. Woodland defined as >0.5 ha based on the National Forest Inventory Woodland England 2018, Forestry Commission

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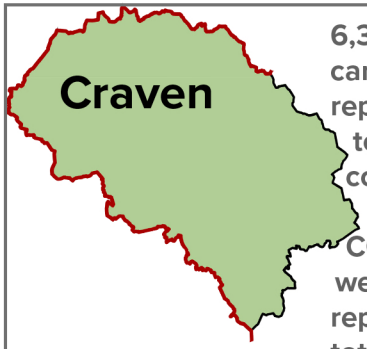
What does it mean for your local authority?

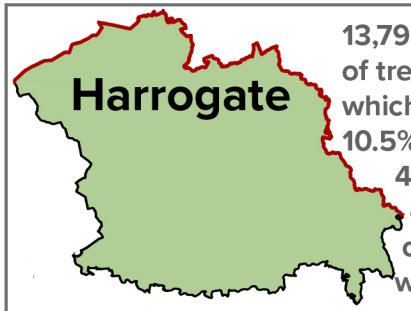


Craven

6,327 hectares of tree canopy cover[1] which represents 5.4% of the total area. 42% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 349 $ktCO_2$ which represents 0.1% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 6-19% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 92-160% of residual emissions in 2050[5].



Harrogate

13,797 hectares of tree canopy cover[1] which represents 10.5% of total area. 41% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 1,081 $ktCO_2$ which represents 0.3% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 2-6% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 30-52% of residual emissions in 2050[5].

York

2,926 hectares of tree canopy cover[1] which represents 10.8% of the total area. 60% of canopy cover is made up of trees outside woodlands[2]

CO_2 emissions in 2018[3] were 821 $ktCO_2$ which represents 0.2% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 2-8% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 39-68% of residual emissions in 2050[5].

Bradford

4,647 hectares of tree canopy cover[1] which represents 12.7% of total area. 58% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 2,036 $ktCO_2$ which represents 0.6% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 1-3% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 16-28% of residual emissions in 2050[5].

Leeds

9,468 hectares of tree canopy cover[1] which represents 17.2% of total area. 49% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 3,905 $ktCO_2$ which represents 1.1% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 0-2% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 8-14% of residual emissions in 2050[5].

Selby

5,988 hectares of tree canopy cover[1] which represents 9.9% of total area. 45% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 930 $ktCO_2$ which represents 0.3% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 2-7% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 34-60% of residual emissions in 2050[5].

1. Canopy cover estimate from Blue Sky National Tree Map™ dataset.
2. Woodland defined as >0.5 ha based on the National Forest Inventory Woodland England 2018, Forestry Commission.
3. UK Local Authority Carbon Dioxide Emissions, Department for Business, Energy and Industrial Strategy 2018.
4. Tackling the Climate Emergency: Emissions Reduction Pathway Report, 2020. West Yorkshire Combined Authority. Assuming residual emissions in 2038 are 18-27% of 2018 emissions.
5. Assuming that the region's emissions continue to decline and reach 5% of the 2018 value by 2050.

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What does it mean for your local authority?

4,336 hectares of tree canopy cover[1] which represents 11.9% of total area. 48% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 1,039 $ktCO_2$ which represents 0.3% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 2-6% of the estimated residual emissions in 2038 (assuming emissions reduction pathway followed[4]), rising to 31-54% of residual emissions in 2050[5].

6,199 hectares of tree canopy cover[1] which represents 15.2% of total area. 51% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 1,910 $ktCO_2$ which represents 0.6% of UK total.

Planting example: 100 ha of tree planting every year will result in the annual removal of 1-3% of the estimated residual emissions in 2038, (assuming emissions reduction pathway followed[4]), rising to 17-29% of residual emissions in 2050[5].

4,778 hectares of tree canopy cover[1] which represents 14.1% of total area. 56% of canopy cover is made up of trees outside woodlands[2].

CO_2 emissions in 2018[3] were 2,073 $ktCO_2$ which represents 0.6% of UK total.

Planting example: 100 ha of tree planting every year will result in annual removal of 1-3% of the estimated residual emissions (assuming emissions reduction pathway followed[4]), rising to 15-27% of residual emissions in 2050[5].

Next steps

1 Each local authority White Rose Forest Group to complete internal discussions and make its recommendations for respective Director of Development sign off by end January 2021.

2 Remaining areas of North Yorkshire to be analysed and integrated into existing study, with North Yorkshire County Council signing off recommendations.

3 By end of February 2021, the White Rose Forest Steering Group approves final White Rose Forest Carbon Group recommendations as our first working target for increasing tree canopy cover by 2050.

4 White Rose Forest Plan presented to the Yorkshire Regional Leaders' Group in Spring or Early Summer 2021 (with existing invitation from Dan Jarvis).

5 Publish and launch White Rose Forest Plan on 1st August 2021.

1. Canopy cover mapping from Blue Sky National Tree Map™ dataset.
2. Woodland defined as >0.5 ha based on the National Forest Inventory Woodland England 2018, Forestry Commission
3. UK Local Authority Carbon Dioxide Emissions, Department for Business, Energy and Industrial Strategy 2018.

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WHITE ROSE FOREST

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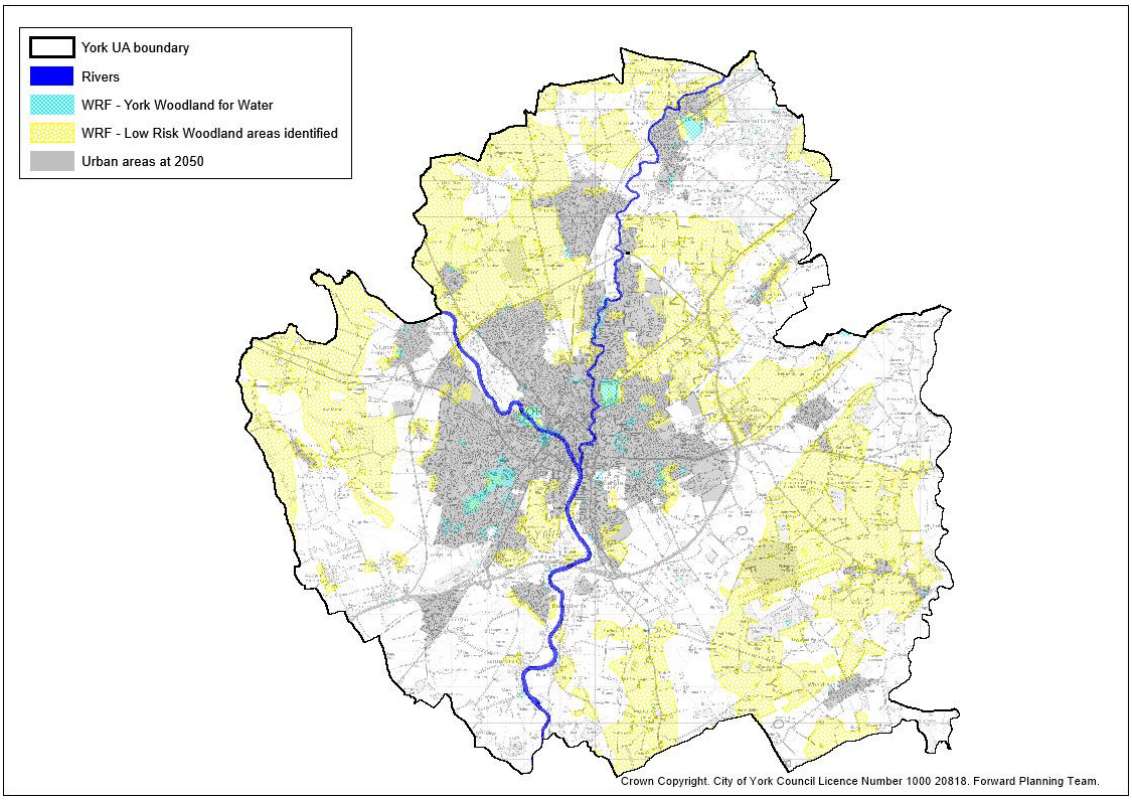
4. Tackling the Climate Emergency: Emissions Reduction Pathway Report, 2020. West Yorkshire Combined Authority. Assuming residual emissions in 2038 are 18-27% of 2018 emissions.
5. Assuming that the region's emissions continue to decline and reach 5% of the 2018 value by 2050.

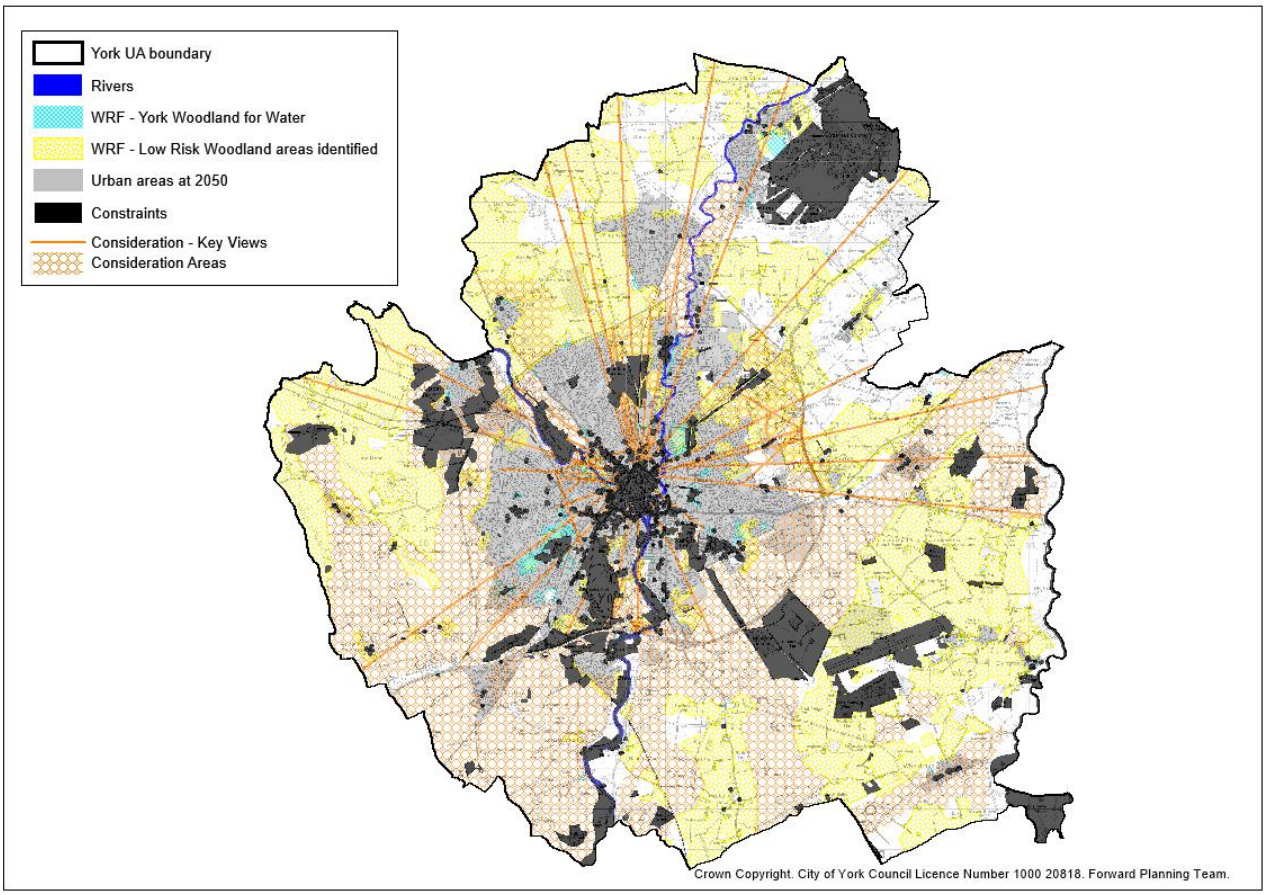
Annex 3

WRF Outcomes



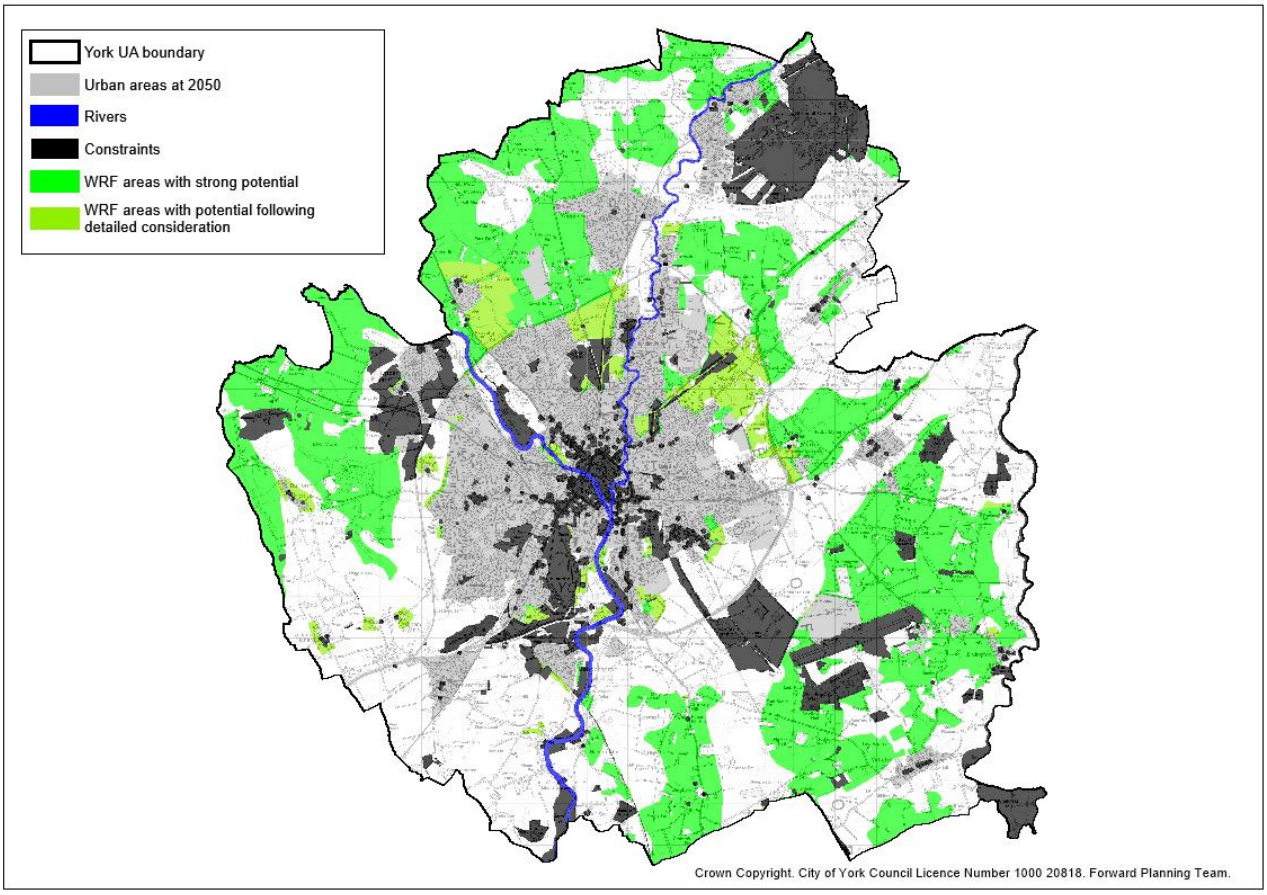
Annex 3

WRF overlaid with constraints and considerations



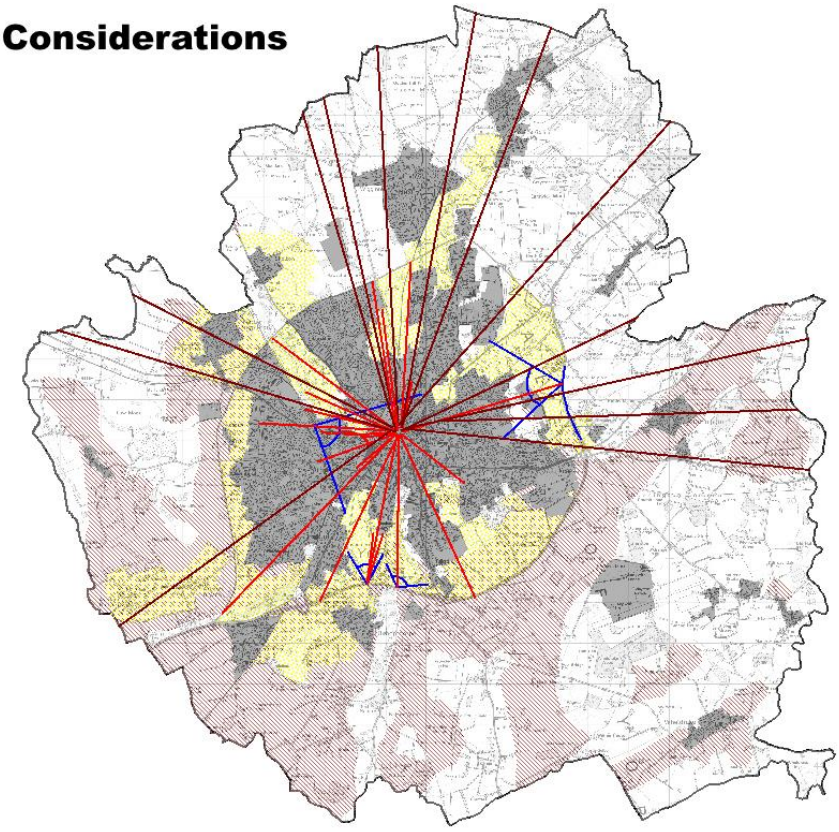
Annex 3

Potential of WRF land identified



Annex 3

Considerations



Legend

Existing and planned built up areas

Heritage Considerations

Historic Character and Setting

Sensitive areas include:
Green Wedges
Areas protecting rural setting of city
areas protecting village setting
Areas preventing coalesence

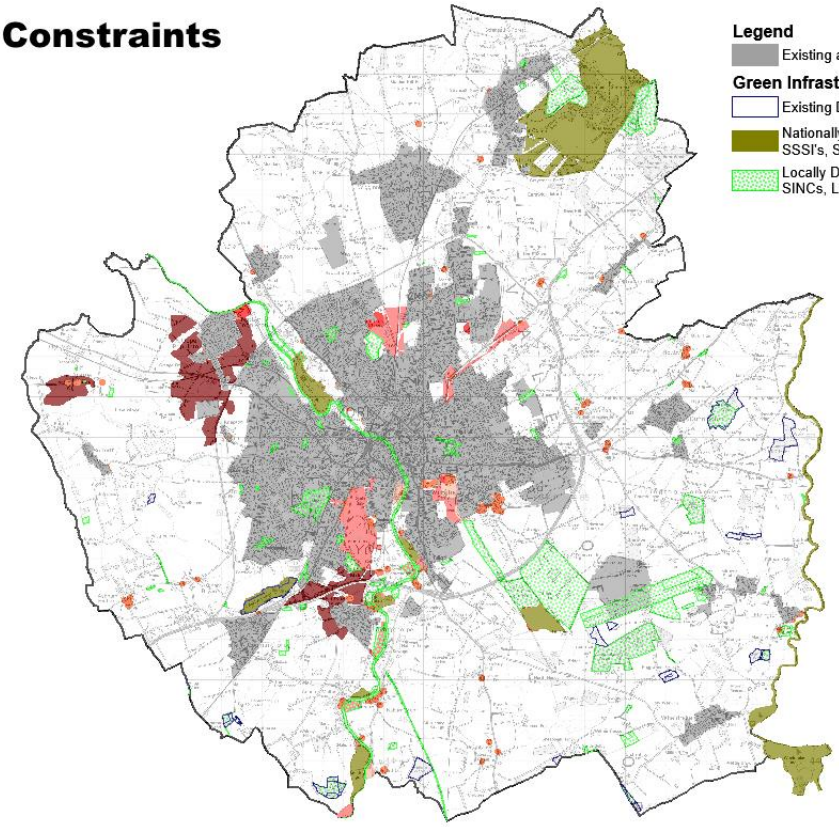
Views

City Wide View
Long Distance View
Important Panoramas

Climate Change Considerations

Agricultural Land Grade 2

Constraints



Legend

Existing and planned built up areas

Green Infrastrcuture Constraints

Existing Designated Ancient Woodland

Nationally Designated Nature Conservation
SSSI's, SACs, SPAs, RAMSAR

Locally Designated and planned Nature Conservation
SINCs, LNRs, Biodiversity Net Gain Areas

Heritage Constraints

Scheduled Ancient Monuments

Designated Listed Buildings

Designated Historic Parks and Gardens

Historically Important Landscapes
Ings and Strays

Climate Change Constraints

Agricultural Land Value - Grade 1

Executive Member for Environment and Climate Change Decision Session

5th May 2021

Report of the Director of Economy & Place

York 5 Year Flood Plan Update

Summary

1. The flooding in late December 2015 followed an intense period of rainfall across November and December due to the impacts of Storms Desmond and Eva. Record river levels were observed in many river catchments across the north of England. More than 4000 homes and 2000 businesses flooded across Yorkshire with 453 properties and 174 businesses flooded in York.

2. Funding has been allocated to the Environment Agency (EA) following the floods to renew existing and provide new flood defences across the city, £28m has been allocated to the Foss Barrier improvements and a total of £64m to the wider flood defences across the city.

3. An update on progress has been supplied by the EA, this can be seen in Annex 1. A further paper providing more context on the current programme of funding and it's potential outcomes is provided as Annex 2.

4. City of York Council are leading on the development of the scheme in Fulford, approvals and contract award has been made to take this scheme through the detailed design and planning stage, work has commenced and a number of design meetings, review sessions and community meetings have been held.

5. City of York Council have developed a proposal for Defra's Innovative Flood Resilience Grant to support catchment scale natural flood risk management solutions which would be funded through the utilisation of innovative modelling linking beneficiaries with those that can provide the services upstream. Financial modelling will identify the ways in which the services could be funded. The proposal was successful and funding has

been provided for a development phase through to September to finalise the business case. An overview of the project is provided at Annex 3.

Recommendations

6. The Executive Member for the Environment and Climate Change is asked to note the updated report and the evidence presented by the Environment Agency in the session, feedback is sought from the Executive Member on all content.

Background

7. Following the development and publication of the York Five Year Plan (https://www.gov.uk/government/publications/york-5-year-flood-plan) the EA have developed the Defra Strategic Outline Business Case and financial approvals have been sought and obtained from Defra. Detailed businesses cases are being developed for 19 flood cells across the city.

8. The Environment Agency continue to work closely with City of York Council on all aspects of the York Five Year Plan, an update has been provided by the EA at Annex 1.

9. Although significant funding is available across the programme the EA are currently reviewing the existing allocations across all projects to account for changes in project costs and the reallocation of unutilised risk allocations. A summary is provided in Annex 2 to support the review, input form CYC is sought via the meeting discussion.

10. Following an outline appraisal a preferred option of defences and a pumping station have been identified to provide protection to homes and maintain access on Fordlands Road during flooding. The scheme will also aid future flood resilience on the A19. The scheme was considered in the August 2020 Executive Member for the Environment and Climate Change Decision Session:

    http://modgov.york.gov.uk/ieListDocuments.aspx?CId=870&MId=12345&Ver=4

11. Consultants have been procured to deliver the detailed design and to work up all planning approval submissions for the scheme. Work began on the commission during March 21, consultants have reviewed existing modelling and are in the process of updating modelling to support the design of the scheme. A number of design sessions have been held to gather input from a range of technical consultees. A meeting was held on

15th April with the ward councillor and members of the public to update on the scheme, answer questions and gather information.

12. Government have made £150m available to 25 projects across England, the successful projects will all deliver innovative resilience solutions within their project areas. CYC developed a project with North Yorkshire County Council, EA, JBA Consulting, University of York, Dales Rivers Trust, Yorkshire Dales National Park and a range of other catchment partners to develop flood modelling that will target deliverable natural flood solutions to upstream rural communities and link the outcomes to those who benefit downstream – North Yorkshire towns and villages and the city of York.

13. A range of potential financial opportunities to deliver the works will be identified and the linkages made between those who can supply the services with those who will benefit will be developed and supported to increase the uptake and delivery of natural flood risk management solutions across the River Swale, Ure, Nidd and Ouse catchments.

14. Our bid was successful and the project will be supported for the next 5 years, initial funding has been provided for a development phase running through the current financial year where the final business case will be developed and agreed. The full project will commence immediately after. An overview of the project tis provided at Annex 3, further papers will be provided through CYC governance processes as the business case progresses.

Consultation

15. Public consultation on the York Five Year Plan continues through a range of flood cells, this is detailed in the update in Annex 1 along with the programme of future consultation events.

16. Consultation on the Germany Beck Flood Alleviation Scheme will continue as the design work commences.

Options

17. The principal options open to the Executive Member for Environment and Climate Change are to comment on and review the work undertaken to date, the future work identified and the representations made by the Environment Agency.

Analysis

18. Ongoing liaison will continue between the Executive Member for Environment and the CYC Flood Risk Manager, future briefings to the Executive Member for Environment and Climate Change Decision Session will be made to ensure key outputs and decisions are supported by CYC and to provide formal opportunities for members and the public to consult. Further recommendations will be made for agreement at these sessions.

Council Plan

19. Improved provision of flood defences supports a prosperous city for all through safer communities for residents, businesses and visitors, a wide range of consultation events will ensure this is in line with the needs and expectations of local communities.

Implications

20. **Financial** – Funding is allocated directly to the EA, the additional funding is available to be directed towards key flood risk projects in the city in the short term. The extent of required works may require wider funding and Defra funding bids will be developed. There are likely to be contribution requirements as part of this wider work.

21. **Property** – The Site Investigation programme will include sites under CYC ownership and/or control, consultation will be carried out with Estates teams and all relevant agreements will be put in place.

22. Human Resources (HR) – No implications

    One Planet Council/Equalities – No implications

    Legal – No implications

    Crime and Disorder – No implications

    Information Technology (IT) – No implication

Risk Management

23. No known risks are identified at this time, detailed risk management work will be developed as the business case and detailed design works commence.

Contact Details

Author:	**Chief Officer Responsible for the report:**
Steve Wragg **Flood Risk Manager** **Highways**	**Neil Ferris** **Director of Economy & Place**

Report Approved ✓ **Date 19/04/21**

Wards Affected: List wards or tick box to indicate all **All** ✓

For further information please contact the author of the report

Background Papers: None

Annexes: **Annex 1** York 5 Year Flood Plan Update May21
Annex 2 York 5 Year Flood Plan Update May21
Annex 3 York 5 Year Flood Plan Update May21 – Innovative Resilience Fund

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Annex 1

York Flood Alleviation Scheme

Environment Agency

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 Almery Terrace. We have installed new gates and glass panels at Almery 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 Almery 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.

Bishopthorpe (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 Almery 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 knew 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/Jun 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/Jun 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

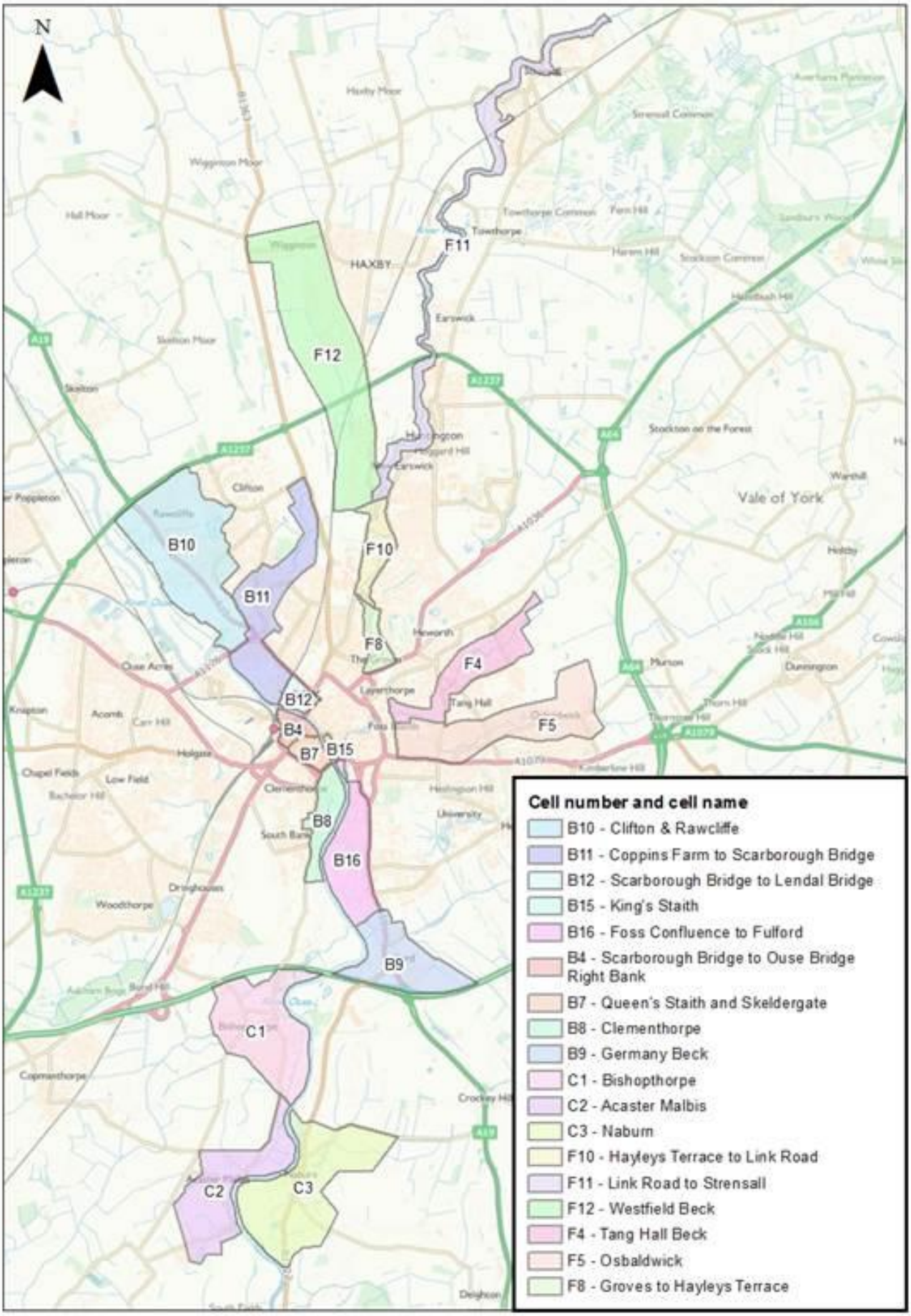
C1 - Bishopthorpe	3,390	Approved by LPRG Oct 2020	Planning permission granted August 2020	Planned May/Jun 2021, with a duration of 9 months	117
C2 - Acaster Malbis	PFR Budget	Approved by LPRG Aug 2019	Not required	TBC	14
C3 - Naburn	PFR Budget	Approved by LPRG Aug 2019	Not required	TBC	51
F4 - Tang Hall 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



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Annex 2

York Flood Risk Programme Funding and Allocation April 2021

Overview

This paper is for the City of York Decision Session - Executive Member for Environment and Climate Change and summarises the current funding available to the Environment Agency for works to reduce the risk of flooding in York and the latest allocation for each project.

The Councillor is asked to note the paper.

Background

The 2015 Boxing Day floods were unprecedented in their impact on a number of communities across Yorkshire both in terms of the extent and severity of the flooding and the damage and devastation that was caused. In a 24-hour period the equivalent of five-inches of rain fell, 20% more than would be expected for the month of December as a whole. The rain fell on already saturated ground with November and December 2015 being the third and first wettest months respectively for over 100 years. The run-off in to the river system was rapid across Yorkshire, and the subsequent rise in river levels allowed little time for communities to prepare.

In Yorkshire over 4,000 homes and almost 2,000 businesses were flooded with the economic cost being over half a billion pounds, £100 million of which was damage to key infrastructure such as bridges and roads.

In response the Government announced an extra £700m in funding to help deliver the government's commitment to ensure communities in Yorkshire are protected against increasingly extreme weather. This included £45.2m to reduce the risk of flooding in York with an additional £18.1m in March 2021. The latter to be planned for and confirmed in early 2021. This was in addition to work at the Foss Barrier.

Current Funding Summary for York

- The Environment Agency was allocated £45.2m additional funding in March 2016 to improve the standard of flood defences within York.
- A further £18.1m allocation from March 2021 was also agreed in March 2016 (subject to agreement in early 2021). It has now been confirmed that an additional £18.5m is available.
- A contribution of £0.3m has been agreed with City of York Council for Clementhorpe Area flood defences.
- The total available funding to improve the defences in York is (£45.2m + £18.5m + £0.3m) £64m.

Current Allocation Summary for York

Table 1 sets out the current allocation of the funding allocated to each flood risk reduction project for York. This gives total forecast spend of £64.135m across all flood risk work in York excluding the Foss Barrier.

Table 1 - Allocation across York Flood Cells (£k)

B04 Scarborough Br to Ouse Br	B08 Clementhorpe & South Bank	B11 Copins Farm to Scarb Br	B10 Clifton & Rawcliffe	B12 Scarborough Br to Lendal Br	B8, B16, B7, B15, C2, C3, F9 PFR	C01 Bishopthorpe	F08, F10 & F11 Foss US Storage	F4 & F5 Tang H Beck & Osbwk Beck[1]	B9 Fulford & Germany Beck[2]	F1 Tower Street	F12, B7, C3, F9, B15, B16, B11 Other Flood Cell work	COVID19 impact reduction (12 months to Mar 2021)[3]
2,555	**7,717**	**3,665**	**20,600**	**2,950**	**3,001**	**3,390**	**17,526**	**1,013**	**1,500**	**250**	**1,468**	**-1,500**

Table notes:

1 – Due to technical issues and associated cost increases we are reviewing options for Tang Hall Beck and Osbaldwick Beck (F4/F5). Additional funding may need to be sourced depending on the results of this review.

2 - There is an additional £1,500k of costs occurred due to COVID19 over the last 12 months to March 2021. Costs associated with Covid impacts/delays are not being accounted for against this allocation. This is being managed through a separate mechanism to ensure schemes aren't impacted/penalised.

3 – Fulford & Germany Beck is a contribution towards a project being led by City of York Council.

Each project has a financial forecast for risk included within its current individual allocation. It is expected that all risk across the programme will not occur and that the total spend will therefore be below the £64m allocated. Any money allocated to risk that has not materialised will be recycled within the York programme to support investment in York. The allocation comprises all project costs including desktop studies, river mathematical modelling, survey, ground investigation, business case development, design and where the project is approved and goes ahead, construction costs. Maintenance costs are not included and are allocated separately in the Environment Agency's annual maintenance budget.

If a project is unable to gain approval and move into construction (for example the current benefit cost is below one), any data collected, analysis completed, etc. will be available in the future should funding rules change or additional funding found from elsewhere. We will continue to work with City of York officers to obtain funding from other sources.

Annex 3

Project Overview

Government announced a programme to test and demonstrate ways to help communities become more resilient to flooding and coastal change in the 2020 budget. The programme aims to allocate £150 million to 25 areas in England to deliver innovative flood resilience projects.

City of York Council and North Yorkshire County Council have worked with a number of project partners to develop a bid for this funding, our project aims to deliver catchment wide natural flood risk management solutions that will provide increased flood resilience to North Yorkshire and York communities and reduce the impacts of existing and future flood events.

The project has been developed with involvement from a number of key partners including JBA Consulting, Environment Agency, University of York, Yorkshire Dales Rivers Trust, Yorkshire Dales National Park and a range of other river catchment based partnerships. Defra have confirmed funding for the project and we will shortly commence the development phase of the project intended to refine and review all elements of the proposed project before the final project proposals are confirmed and all confirmed project partners prepare for project delivery later in 2021. The project will run for six years.

In essence the project seeks to work with landowners and those at flood risk across the River Swale, Ure and Nidd catchments upstream of the City of York and form links to develop an understanding and agreement of how changes to upstream land management can benefit at risk communities downstream. This is an ambitious project that has not previously been carried out on this scale. The project will work with the varying catchment partnerships and the good work that has already been carried out to embed catchment-sensitive farming ideals and directly link those who have the means to home upstream flood prevention measures with those who benefit from reduced flood risk. The linkage would be both financial and social, providing reward and recognition for the upstream parties and engendering an understanding and sense of ownership of the measures by those who benefit downstream.

We will develop a bespoke and detailed science base to identify storage and natural flood management opportunities down to a local scale, producing a ‘shopping list’ of potential measures and identifying the downstream locations that would benefit from this work. Engagement of beneficiaries in urban areas will identify ways in which they can support and contribute to the delivery of such measures, and this is expected to be supported through local policy and financial incentives and inform national policy and future programmes of investment. Innovative ways to engage all parties will be developed drawing on past best practice, science and research from a wide range of fields. A number of demonstration sites will be developed throughout the catchment to illustrate the techniques and highlight the benefits.

The project ultimately aims to deliver the means to establish a wide range of natural flood risk management projects across the catchment that will deliver increased flood resilience and support a wider range of multiple benefits across other climate, ecology and biodiversity agendas.

Although City of York Council are the project funding lead an approach will be developed and agreed between the authority and North Yorkshire County Council to establish joint project principles and outcomes and deliver a joined up approach to flood risk solutions across the whole river catchment.

Steve Wragg, Flood Risk Manager, City of York Council

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