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Report to: West Yorkshire Combined Authority

Date: 2 February 2023

Subject: Project Approvals - Investment Priority 3 – Creating Great Places and Accelerated Infrastructure

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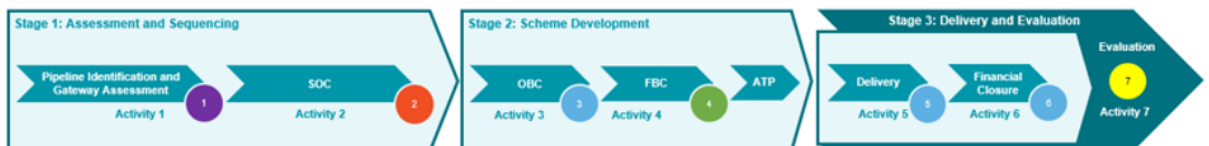
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## 1 Purpose of this report

- 1.1 To report on proposals for the progression of, and funding for projects under Investment Priority 3 – Investment Priority 3 – Creating Great Places and Accelerated Infrastructure, within the West Yorkshire Investment Strategy (WYIS), that have been considered at stages 1, 2 and 3 of the Combined Authority's assurance process.



- 1.2 The recommendations can be found in Section 12 of this report.

## 2 Report

- 2.1 This report presents proposals for the progression of schemes through the Combined Authority's assurance process in line with the Combined Authority's Assurance Framework. Further details on the schemes summarised below can be found as part of this report.
- 2.2 For more detail on the Combined Authority's Assurance Framework through which each of the schemes outlined in this report are being approved is provided in **Appendix 1**.

## 3 Investment Priority 3 (IP3) - Creating Great Places and Accelerated Infrastructure

- 3.1 The West Yorkshire Investment Strategy (WYIS) sets out the Investment Priorities for the period 1 April 2021 to 31 March 2024 across six areas. In

each, a number of priority project / programme areas have been identified that are the focus for intervention.

3.2 Investment Priority 3 will focus on place-making, housing, regeneration, flood risk and digital infrastructure, by delivering programmes and schemes which will:

- Accelerate the transformation of towns and cities into successful, resilient, sustainable places.
- Increase flood resilience and enhance property level flood resilience for businesses
- Create healthier, positive and greener places.
- Strengthen existing places
- Create new, future-proofed, well-designed developments.
- Increase access to gigabit-capable broadband in hard to reach and/or rural areas.
- Reduce fuel poverty.

## Scheme summaries

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| <p><b>Capital Flood Risk Management Programme</b></p> <p>West Yorkshire</p> | <p><b><u>Scheme description</u></b></p> <p>The Capital Flood Risk Management Programme contributes to the delivery of the West Yorkshire Investment Strategy (WYIS) Investment Priority 3 – Creating Great Places and Accelerated Infrastructure. The WYIS identifies increasing flood resilience as a desired outcome and accelerating the delivery of the Capital Flood Risk Management schemes, as part of a wider approach to climate change mitigation, resilience and carbon sequestration, the capturing, removal and storage of carbon dioxide from the atmosphere, as a priority area for investment.</p> <p>In West Yorkshire approximately 39,000 residential properties and 13,000 commercial properties are within a flood zone and as a result of climate change, flooding is likely to become a more frequent occurrence.</p> <p>There is now a consistent pattern of wet winter periods, with saturated land and consistently high river levels making our communities increasingly vulnerable to the heightened frequency of intense storms. Many communities, particularly in small towns, are struggling to recover, and businesses are unable to plan for sustainable growth. These ongoing flood incidents have reinforced the need to secure capital investment to allow communities to be more resilient to flooding and avoid both the human suffering and economic cost that comes with these events.</p> <p>The Capital Flood Risk Management Programme aims to:</p> <ul style="list-style-type: none"><li>• Enhance flood protection to protect businesses, homes and jobs.</li><li>• Provide flood protection to vulnerable and deprived areas, including those defined as the top 10-20% most deprived</li><li>• Deliver innovative schemes, incorporating new methods that will be transferable to other areas and overall management of space for water.</li></ul> <p>The programme is proposed to be funded by the gainshare allocation for Investment Priority 3 alongside other potential funding sources. It is proposed that packages of schemes are developed assuming £10,000,000 of match funding from the Combined Authority to support delivery of this programme. The match funding will be used to leverage or unlock other funding sources as they arise.</p> <p><b><u>Impact</u></b></p> <p>The programme has the potential to lead to a reduction in the economic and social cost of flooding, such as the avoidance of repair costs to residential and commercial assets, negating the damage costs associated with wider transport/utilities infrastructure, and improved mental health and wellbeing for those living and working within the affected area.</p> <p><b><u>Decision sought</u></b></p> <p>Approval to proceed through decision point 1 (strategic assessment) and for work to commence on the development of individual business cases.</p> <p>Total value of the scheme - £249,000,000</p> |
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|  | <p>Investment required - £58,412,582 with a proposal that £10,000,000 of Combined Authority funding is utilised in order to leverage other sources</p> <p>Funding recommendation sought - £113,735</p> <p>A decision by the Combined Authority is sought as part of this report</p> |
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| <p><b>Flood Alleviation Scheme 2</b></p> <p>Leeds</p> | <p><b><u>Scheme description</u></b></p> <p>This scheme will reduce flood risk to residential and commercial property along the River Aire in Leeds. The scheme will deliver new flood walls, conveyance improvement works, a flood attenuation area at Calverley, plus access improvement works and green infrastructure at Kirkstall Valley Nature Reserve. Through these interventions, the scheme will provide protection against a 1 in 200-year flood event for the upstream section of the river between Leeds Railway Station and Newlay beyond Kirkstall corridor to the west of the city.</p> <p>The first element (Step 1) of this scheme, which was partially funded through the Local Growth Fund, has been completed and is operational. The second element (Step 2) is currently under construction however, due to significant inflation impacts the costs required to complete the scheme have increased and there is now a funding gap impacting delivery.</p> <p>This scheme will be funded from the Government's Department for Business, Energy, and Industrial Strategy (BEIS) Capital Investment Fund.</p> <p><b><u>Impact</u></b></p> <p>The scheme will reduce the risk of flooding and its associated impacts to the affected homes, businesses, and key infrastructure in the area. It will also protect future development land which will increase developer and business confidence to ensure future investment and growth in the Leeds area.</p> <p>The value for money assessment reflects a benefit cost ratio (BCR) of 8.9. This is categorised as very high value for money.</p> <p><b><u>Decision sought</u></b></p> <p>Approval to proceed through decision point 1 to 4 (business justification) and work continues on activity 5 (delivery).</p> <p>Total value of the scheme - £125,826,000</p> <p>Total value of Combined Authority funding - £12,565,000</p> <p>Funding recommendation sought - £12,565,000</p> <p>A decision by the Combined Authority is sought as part of this report</p> |
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- 3.3 Since the Combined Authority’s meeting on 08 December 2022, the following decision points and change requests have been assessed in line with the Combined Authority’s assurance process and were presented through the agreed delegation to the Place, Regeneration and Housing Committee at its meeting on 05 January 2023 following a recommendation from Combined Authority Programme Appraisal Team.
- 3.4 However, the Place, Regeneration and Housing Committee on 05 January 2023 was not quorate and therefore the projects, although supported could not be formally approved. The Place, Regeneration and Housing Committee therefore recommended to the Combined Authority that the following projects be approved:
- 3.5 The full agenda and papers for the meeting can be found on the Combined Authority website [HERE](#).

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| <p><b>BHF Armley Tower Works</b></p> <p>Leeds</p> | <p><b><u>Scheme description</u></b></p> <p>This scheme will develop 50 affordable homes in Armley, Leeds comprised of 27 houses and 23 apartments.</p> <p>The scheme is to be delivered through the Brownfield Housing fund.</p> <p><b><u>Impact</u></b></p> <p>The scheme is within a sustainable urban location, close to jobs and a good transport network. The scheme will deliver new homes close to employment opportunities and also near some of the city’s most deprived neighbourhoods which will help reduce deprivation and inequality and promote access to employment and skills.</p> <p>The value for money assessment reflects a benefit cost ratio (BCR) of 1.4:1. This is categorised as acceptable value for money.</p> <p><b><u>Decision sought</u></b></p> <p>Approval to proceed through decision point 2 to 4 (business justification) and work to commences on activity 5 (delivery).</p> <p>Total estimated value of the scheme – £9,909,032</p> <p>Total value of Combined Authority funding – £932,775</p> <p>Funding recommendation sought – £932,775</p> <p>A decision by the Combined Authority is sought as part of this report</p> |
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| <p><b>Galem House</b></p> <p>Bradford</p> | <p><b><u>Scheme description</u></b></p> <p>This scheme will develop 77 new apartments in Bradford City Centre.</p> <p>The scheme will restore a priority heritage building comprising of 0.13 Acres or 0.053 Hectares back into productive use, providing 77 new homes (apartments) in a key city centre location.</p> <p>The scheme is to be delivered through the Brownfield Housing fund.</p> |
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|  |  |
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|  | <p><b><u>Impact</u></b></p> <p>The scheme provides access to jobs and education opportunities. The scheme will deliver new homes close to employment opportunities and near some of the city's most deprived neighbourhoods which will help reduce deprivation and inequality and promote access to employment and skills.</p> <p>The value for money assessment reflects a benefit cost ratio (BCR) of 1:1 This is categorised as acceptable value for money.</p> <p><b><u>Decision sought</u></b></p> <p>Approval to proceed through decision point 4 (full business case) and work commences on activity 5 (delivery).</p> <p>Total estimated value of the scheme – £9,752,717</p> <p>Total value of Combined Authority funding – £1,200,000</p> <p>Funding recommendation sought – £1,200,000</p> <p>A decision by the Combined Authority is sought as part of this report</p> |
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## 4 Information

4.1 The Combined Authority's assurance framework requires that formal approval is given to the following elements of a scheme as part of its development:

- The progression of a scheme through a decision point to the next activity.
- Indicative or full approval to the total value of the scheme funding requested.
- The Combined Authority's entry into a funding agreement with the scheme's promoter.
- The assurance pathway and approval route for future decision points.
- The scheme's approval tolerances.

4.2 This report provides information required to enable the Combined Authority to approve each of the above elements.

## Projects in Stage 1: Assessment and Sequencing

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| <b>Project Title</b>  | <b>Capital Flood Risk Management Programme</b> |
| <b>Stage</b>          | 1 (assessment and sequencing)                  |
| <b>Decision Point</b> | 1 (strategic assessment)                       |

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| Is this a key decision?   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| Is the decision eligible for call-in by Scrutiny?                                       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| Does the report contain confidential or exempt information or appendices?               | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| If relevant, state paragraph number of Schedule 12A, Local Government Act 1972, Part 1: |   |  |
| Are there implications for equality and diversity?                                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |

### Background

- 4.3 The Capital Flood Risk Management Programme contributes to the delivery of the West Yorkshire Investment Strategy (WYIS) Investment Priority 3 – Creating Great Places and Accelerated Infrastructure. The WYIS identifies increasing flood resilience as a desired outcome and accelerating the Capital Flood Risk Management schemes as part of a wider approach to climate change mitigation, resilience and carbon sequestration, the capturing, removal and storage of carbon dioxide from the atmosphere, as a priority area for investment.
- 4.4 In West Yorkshire approximately 39,000 residential properties and 13,000 commercial properties are within a flood zone and as a result of climate change, flooding is likely to become a more frequent occurrence.
- 4.5 The Boxing Day 2015 floods affected approximately 6,000 premises in Leeds City Region, with an economic cost of over half a billion pounds, of which £100,000,000 was for direct damage to key infrastructure such as bridges and roads. There was a significant economic impact in a number of areas, for example in Mytholmroyd and Brighouse:
- approximately 180 businesses were affected, employing 2,285 staff within various sectors
  - 50% of the large, advanced manufacturing and specialised engineering firms were affected
  - business rate losses were over £1,100,000 in Mytholmroyd within a three-month period.
- 4.6 The heavy rainfall accompanying Storm Ciara in February 2020, led to flooding throughout West Yorkshire affecting homes, businesses, schools and

infrastructure. The heavy rainfall caused properties to flood from a combination of sources, including surface water and river water.

- 4.7 Research undertaken by the University of Leeds and University of York in 2021 found that in Calderdale alone, during the winter of 2019/2020 the floods caused over £68,000,000 of losses.
- 4.8 There is now a consistent pattern of wet winter periods, with saturated land and consistently high river levels making communities increasingly vulnerable to the heightened frequency of intense storms. Many communities, particularly in small towns, are struggling to recover, and businesses are unable to plan for sustainable growth. These ongoing flood incidents have reinforced the need to secure capital investment to allow communities to be more resilient to flooding and avoid both the human suffering and economic cost that comes with these events.
- 4.9 Dependent on funding being secured, the Capital Flood Risk Management Programme aims to deliver 24 schemes, over eight years, which aims to:
- Enhance flood protection to approximately 3,600 homes, 2,760 businesses and 35,709 Full Time Equivalent jobs
  - Provide flood protection to vulnerable and deprived areas, including those defined as the top 10-20% most deprived
  - Deliver innovative schemes incorporating new methods that will be transferable to other areas and overall management of space for water.
- 4.10 The scheme also contributes to the Mayoral Pledge of tackling the climate emergency through managing flood risk and resilience with the programme being complementary to the Natural Flood Management Programme being funded under Investment Priority 4. Together these programmes deliver a comprehensive catchment level approach to flood risk management
- 4.11 The programme was considered by the Combined Authority's Strategic Assessment Prioritisation Group on 17 November 2022.
- 4.12 The programme is proposed to be funded by the gainshare allocation for Investment Priority 3 alongside other potential funding sources. It is proposed that packages of schemes are developed assuming £10,000,000 of match funding from the Combined Authority to support delivery of this programme. The match funding will be used to leverage or unlock other funding sources as they arise.
- 4.13 Approval is now sought via this report the programme to proceed through decision point 1 (strategic assessment) and for work to commence on the development of individual business cases within the programme and for £113,735 of development costs from the gainshare allocation for IP3.

### **Tackling the Climate Emergency Implications**

- 4.14 The Combined Authority is working towards the challenging ambition of being a net zero carbon economy by 2038, and to have made significant progress by 2030. Climate change and the increased frequency and intensity of weather



patterns are making the risks associated with flooding more acute. The work by partners to enhance the region's flood protection can mitigate some of this risk.

### **Outputs and Benefits**

4.15 If the full funding is secured £249,000,000, the scheme outputs and benefits include:

- Improved climate resilience and flood defences
- Creation of new flood alleviation schemes
- Refurbishing existing flood alleviation schemes
- Enhance flood protection to approximately 3,600 homes, 2,760 businesses and 35,709 FTE jobs (equivalent to £2bn GVA p.a.). The variety of jobs safeguarded is large, with opportunities for skills development in a range of employment sectors.
- Reduced impact upon transport and utilities infrastructure, such as roads closed due to flooding
- Improved mental health outcomes by reducing frequency and scale of flooding in communities
- The programme's construction phase equates to an estimated 2,347 full time equivalent (FTE) construction jobs that will be created and secured. A number of these are likely to be within the environment and green jobs sectors.

### **Inclusive Growth Implications**

4.16 The scheme inclusive growth implications include:

- The programme will provide flood protection to vulnerable and deprived areas, including those defined as the top 10-20% most deprived by the Indices of Multiple Deprivation (IMD).
- Research undertaken by the Joseph Rowntree Foundation (JRF) has found that many socially deprived neighbourhoods are also socially vulnerable to climate events. Low-income households are less able to make their property resilient, and to respond to and recover from the impacts of floods. The ability to relocate is affected by wealth, as is the ability to take out insurance against flood damage. Furthermore, Yorkshire and Humberside is estimated to be the most flood-disadvantaged region in England.
- Initial analysis of the JRF Flood Vulnerability Index, a tool which measures the propensity of those living in a neighbourhood to suffer a loss of wellbeing should a flood occur, has shown that approximately 15% of West Yorkshire residents live within a neighbourhood with a rating of 'acute' or 'extremely high', compared to 8% of England's population falling into these groups. This would suggest that a considerably higher proportion of West Yorkshire residents have a

propensity to suffer loss of wellbeing due to a flooding event than the average for England as a whole.

- The schemes which have been identified as enhancing protection in areas with an 'extremely high' or 'relatively high' Flood Vulnerability Risk Rating (which indicates the propensity of those living in a neighbourhood to suffer a loss of wellbeing should a flood occur) are:
  - Bradford: Bradford Beck Flood Alleviation Study and Keighley and Stockbridge Flood Alleviation Scheme
  - Kirklees: Albert Street FAS
  - Leeds: Wyke Beck Improvement Phase 2
- This illustrates that the programme would benefit areas vulnerable to the impacts of flooding and subsequently helps to achieve the ambition of the region's emerging Inclusive Growth Policy Framework.

### **Equality and Diversity Implications**

- 4.17 An Equality Impact Assessment (EqIA) has been undertaken for the scheme and equality and diversity impacts taken account of as part of the development of the scheme and the business case development.

### **Risks**

- 4.18 The scheme risks include:
- Funding and an inability to access the required level of investment. Mitigation to be explored as part of the programme development.
  - Competing or miss aligned priorities of key stakeholders. Mitigated by stakeholder management and engagement through the programme development and delivery phases.
  - Inflationary and cost increases. Mitigated by allowance for recent high inflation as additional contingency.
  - Weather conditions impacting on scheme delivery. Mitigated by close working with contractors and suppliers and planning around key construction periods.
  - Availability of labour. Mitigated by close interaction with the supply chain and labour market.
  - Availability of supply/material. Mitigated by early contractor involvement and award in delivery phase.
- 4.19 A Programme level Risk Register has been completed providing a summary of how these risks can be best mitigated, including the introduction or appropriate governance processes and detailed cost profiling and project planning with relevant contingencies considered.
- 4.20 The proposed mitigation measures will be explored and developed further as part of the individual business case development.

### **Costs**

- 4.21 The total scheme costs are £249,000,000. This total has been developed by the Environment Agency (EA), based upon its extensive experience of delivering capital flooding schemes.
- 4.22 The level of further investment required is proposed at £58,412,582. It is proposed that the Combined Authority develops schemes to utilise £10,000,000 from its funding to engage and leverage funding from other funding sources.
- 4.23 The EA and partners have set out the following funding sources to cover the remaining scheme costs:
- Grant in Aid: The amount of GiA funding a project is eligible for is dependent on the benefits it will deliver (e.g. number of homes), and this is calculated using the Partnership Funding calculator.
  - Asset Replacement Allowance (ARA): This is calculated where there is a shortfall in funding to manage the replacement of economically viable flood risk infrastructure that that requires replacement in the near future.
  - Other Government Department (OGD) funding: This is calculated where a benefit to a government departments' asset (e.g. hospitals, schools, road and rail networks etc) is realised.
- Both ARA & OGD need to be cost beneficial (have a BCR>1)
- Local Levy: Allocation of Local Levy to projects is made by the Yorkshire Regional Flood and Coastal Committee at each of its quarterly meetings, following an application process. Once an allocation of Levy has been secured, the assurance process follows the same route and Financial Scheme of Delegation requirements as GiA.
- 4.24 Whilst funding is being secured, approval is now sought for development costs of £113,735 from the IP3 gainshare allocation. Recruitment of a project manager and programme manager at this early stage will expedite delivery of the programme.
- 4.25 It is likely that funding will be achieved in tranches and/or be mixed between the Authority, Environment Agency and local authority partners. This work will be refined as funding becomes available, including if part funding is only achieved.

### **Assurance Pathway and Approval Route**

| <b>Assurance pathway</b> | <b>Approval route</b>  | <b>Forecast approval date</b> |
|--------------------------|--|-------------------------------|
| 1 (strategic assessment) | Recommendation: Combined Authority's Strategic Assessment Prioritisation Group<br>Decision: Combined Authority | 02/02/2023                    |

- 4.26 Work will now commence on the development of individual business cases within the programme, which will come through the assurance process for

approval by the Combined Authority. Timescales and assurance pathways and approval routes for the individual projects will be confirmed in individual project business cases.

### **Assurance Tolerances**

| <b>Assurance tolerances</b>   |
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| Assurance tolerances will be set at the next business case stage for each individual project. |

### **Appraisal Summary**

- 4.27 The scheme was submitted as a Strategic Assessment and was recommended for approval due to the strategic importance and benefits of the scheme. The proposal will provide greater protection from flooding to homes, businesses and key infrastructure. This will improve and protect connectivity to existing businesses and will increase developer and business confidence to ensure they invest, remain and grow in the Leeds area, supporting a resilient economy.

### **Recommendations**

- 4.28 The Combined Authority approves that:
- (i) The Capital Flood Risk Management Programme proceeds through decision point 1 (strategic assessment) and work commences on the development of individual business cases.
  - (ii) Development costs of £113,735 are approved taking the total scheme approval to £113,735.
  - (iii) The principal that £10,000,000 of Combined Authority funding is utilised in order to engage and leverage funding from other funding sources and that work commences on the development of individual business cases, which will seek approval through the Assurance Framework.
  - (iv) Approval of individual business cases through the Assurance Framework is delegated to the Place, Regeneration Housing Committee.
  - (v) Future approvals are made in accordance with the assurance pathway and approval route outlined in this report and where required, any change requests for the Capital Flood Risk Management Programme are delegated to the Place, Regeneration and Housing Committee. This will be subject to the scheme remaining within the tolerances outlined in this report.

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| <b>Project Title</b>  | <b>Leeds Flood Alleviation Scheme 2</b>                  |
| <b>Stage</b>          | 1 (assessment and sequencing) and 2 (scheme development) |
| <b>Decision Point</b> | 1, 2, 3 and 4 (business justification)                   |

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|---|---|--|
| Is this a key decision?   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| Is the decision eligible for call-in by Scrutiny?                                       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| Does the report contain confidential or exempt information or appendices?               | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| If relevant, state paragraph number of Schedule 12A, Local Government Act 1972, Part 1: |   |  |
| Are there implications for equality and diversity?                                      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |

## Background

- 4.29 This scheme will be funded from the Government's Department for Business, Energy, and Industrial Strategy (BEIS) Capital Investment Fund.
- 4.30 Leeds Flood Alleviation Scheme Phase 2 is a major project which will reduce flood risk to residential and commercial properties and other infrastructure along the River Aire in Leeds and enable development of a number of brownfield sites. Phase 1 of the Leeds Flood Alleviation Scheme commenced in 2016 following the 2015 Boxing Day floods and were opened for use in October 2017.
- 4.31 Flood defences are typically measured by the standard of protection (SoP), which relates to the level of risk that a location will experience a flood. For example a 1 in 100 (1%) chance of flooding in any one year, or a 1 in 200 (0.5%) chance, and so on. Whilst the probability of flooding may seem quite low in any one year, it is widely acknowledged that the effects of such floods have proven to be devastating where the required level of flood protection has not been in place.
- 4.32 This scheme (Phase 2) is being delivered in two steps:
- Step 1: to provide a protection against a 1 in 100 (1%) year level flood event through the construction of raised defences and natural flood management.
  - Step 2: to uplift step 1 to a 1 in 200 (0.5%) level flood event through the construction of an upstream storage area.
- 4.33 Step 1, partially funded through the Local Growth Fund, has been completed and is operational. Step 2 is currently under construction. However, due to significant inflation impacts, primarily resulting from several unpredictable

world events, the actual costs have increased and there is now a funding gap impacting delivery. The scheme has a total of £113,261,000 secured funding to deliver the scheme but costs have now increased to £125,826,000, meaning there is a funding gap of £12,565,000. A bid was submitted to BEIS for the Government's Department for Business, Energy, and Industrial Strategy (BEIS) Capital Investment Fund to fund this gap and complete delivery and was approved on 12 January 2023, subject to assurances on a two outstanding questions.

- 4.34 The principal aim of the scheme is to protect homes and businesses along the River Aire from the economic and social damage that can be caused by a significant flood event. In addition, an enhanced riverside environment, including a riverside pathway for cycle and pedestrian use is to be provided to encourage active lifestyles and provide health benefits from walking and cycling.
- 4.35 A summary of the scheme's business case and location map is included in **Appendix 2**.

### **Tackling the Climate Emergency Implications**

- 4.36 The scheme aims to tackle the climate emergency by ensuring the city is more resilient to flooding, which is expected to become more prevalent: The implications include:
- A reduced risk of flooding (and associated costs)
  - Introduction of new and improved high quality green infrastructure which can encourage use of more sustainable modes of transport.
  - Use of more sustainable construction techniques and carbon neutral materials where possible
- 4.37 A detailed bespoke carbon assessment of the impacts of flooding in Leeds has been undertaken (that did not use the Combined Authority's Carbon Impact Assessment toolkit) that has shown that a net carbon saving of 6,540 tCO<sub>2</sub>e would result from provision of the full scheme (i.e. Steps 1 and 2). when protecting the city from a single flood event (equivalent to that experienced in 2015 resulting from Storm Eva).

However, please note that this is based on the carbon impacts of remedial and clean-up measures in the event of a flood. It has been calculated that the carbon involved in constructing the flood prevention infrastructure is less than the carbon that would be generated to repair the damage caused by a flood event. In addition, as part of the scheme delivery, changes to material types, use of existing sections of wall and sourcing materials locally reduced the level of carbon involved in the construction, when considered against initial baseline calculations. Tree planting, also forms part of the overall scheme, in a ratio of three trees to be planted for each 1 lost as part of scheme delivery.

### **Outputs and Benefits**

- 4.38 The total scheme outputs and benefits for Phase 2 include:

- 7.5km of new flood defence walls and embankments
- Three new pumping stations
- Seven new flow control structures
- A large flood storage area near Calverley, making use of an existing flood plain
- Delivery of a natural flood management programme and removal of obstructions along the river
- Reduction in flood risk area by 9.3 hectares,
- Protection of 1,048 residential dwellings from the risk of flooding.
- Protection of 474 businesses from the risk of flooding (and safeguarding of 3,605 jobs)
- Protection of brownfield development land for housing (1,613 new dwellings).
- Protection for key infrastructure including 4 telecommunications masts and switch exchanges, 13 electricity sub-stations.
- Protection of key transport infrastructure including Airedale and Wharfedale rail lines and the A65 and Whitehall Road.

4.39 A summary of how the benefits change between delivery of Steps 1 and Steps 2 is set out below.

| <b>Step 1: 1 in 100</b>  | <b>Step 2: 1 in 200</b>   | <b>Change</b>  |
|--|---|--|
| Catchment wide Natural Flood Management (NFM) programme & flood wall optimisation  | Catchment wide NFM programme & flood wall optimisation + upstream storage / attenuation   | Upstream storage & attenuation – offering greater protection   |
| 1,509 Net jobs<br>£44.2m Net Gross Value Added (GVA) per year<br>£669.8m GVA Net Present Value (NPV) (over 10 years)                               | 1,669 Net jobs<br>£88.2m Net GVA per year<br>£774.4m GVA NPV (over 10 years)  | 160 jobs<br>£44m Net GVA per year<br>£104.6m GVA NPV (over 10 years)<br>Uplift to LFAS1 benefits £14.4m                          |
| 971 existing dwellings protected<br>1,563 new dwellings enabled<br>117 business would be protected from risk of flooding<br>BCR including GVA 10.1 | 1,048 existing dwellings protected<br>1,613 new dwellings enabled<br>474 businesses would be protected from risk of flooding<br>BCR including GVA 8.9 | 77 more existing dwellings protected<br>50 additional dwellings enabled<br>357 more businesses protected<br>BCR reduction of 1.2 |
| Net present value £50m   | Net present value £52.6m  | Net Present Value increase of 2.6m   |

- 4.40 The table above illustrates that whilst the benefit cost ratio (BCR) does reduce slightly when Step 2 is added to Step 1, the scheme remains very high value for money. Additionally, there is a net increase in the number of jobs, gross value added (GVA) and net present value (NPV) as well as providing protection to a larger area and greater number of homes and businesses.

### **Inclusive Growth Implications**

- 4.41 The scheme's inclusive growth implications include enhanced accessibility to riverside foot and cycle paths, and improvement to the landscaping & natural environment.
- 4.42 The scheme will reduce the impact of flooding which can affect households' health and can restrict or remove access to jobs, education and other social value opportunities which can affect social inclusion. Improved protection from flooding can also reduce pressures related to income and financial wellbeing such as increased insurance premiums, financial and emotional costs from damage and loss of possessions.
- 4.43 The scheme will help maintain a more resilient transport network to ensure continued access to jobs, services, and education opportunities in the vicinity of the scheme and in Leeds city centre, by public transport, walking and cycling. This will improve opportunities for people who do not have access to a private car, particularly those on lower incomes.

### **Equality and Diversity Implications**

- 4.44 An Equality Impact Assessment (EqIA) has been undertaken for the scheme and equality and diversity impacts taken account of as part of the development of the scheme and the business case development.
- 4.45 The EQIA illustrated that the area in the vicinity of the scheme has higher than average levels of deprivation (as recorded by the Governments Indices of Multiple Deprivation) with 71% of the population living in areas categorised as the most deprived, which is significantly higher than the 47% average for Leeds. Likewise, there is a relatively high proportion of people who identify with a 'minority faith' (50% of the population are from a minority faith background compared to the 37% average for Leeds, and 9% average for England). As such, flooding in this area could have a disproportionate impact on these groups and the scheme will seek to prevent this from occurring.
- 4.46 The EQIA also highlights potential impacts that the construction of the scheme could have on air quality and noise levels which may exacerbate pre-existing long-term conditions for some individuals in the community, as well as having potential harmful effects on children and older people. In addition, it was also identified that the height of the linear defence walls at certain locations, such as Viaduct Road, may disproportionately impact groups such as women, those from diverse heritage groups and younger people, who are more likely to express personal security concerns from the loss of visibility.
- 4.47 Overall, it is considered likely that the scheme will have a net positive impact on the groups with protected characteristics due to the level of protection provided against floods.



## **Risks**

4.48 The scheme risks include:

- Weather and high river levels for less than 1 in 10 year event affecting delivery – this is to be mitigated by building in time for winter working in the programme.
- Discovery of uncharted services, such as underground water pipes – adding cost for diversion or protection. To be mitigated by engagement with utilities companies alongside surveys using ground penetrating radar (GPR) imaging.
- Lack of suitably skilled people to carry out works.. This is to be mitigated by widening the labour catchment to cover other regions.
- Unexpected events leading to scope changes. This will be mitigated by having robust change control processes to restrict change to essential unavoidable items.
- Network rail interfaces and assets requiring approvals adding delay to the programme. To be mitigated by regular meetings with Network Rail and ongoing tracker of approvals and progress
- Compensation required to landowners for land acquisition and disruptive effect of works – Budget included to make provision for reasonable levels of compensation.
- Inflationary impacts escalating costs. This is being mitigated by sourcing funding from elsewhere to complete delivery.

## **Costs**

4.49 The scheme has a total of £113,261,000 secured funding to deliver the scheme. However, due to significant inflation impacts, primarily resulting from several unpredictable world events, the actual costs have now increased to £125,826,000, meaning there is a funding gap of £12,565,000. A bid was submitted to BEIS for the Government's Department for Business, Energy, and Industrial Strategy (BEIS) Capital Investment Fund to fund this gap and complete delivery and was approved on 12 January 2023, subject to assurances on a two outstanding questions.

4.50 The scheme costs are now £125,826,000 for Phase 2 (Steps 1 and 2).

4.51 The Combined Authority's contribution is £12,565,000 from the Government's Department for Business, Energy, and Industrial Strategy (BEIS) Capital Investment Fund.

4.52 The remaining funding has previously been secured from a wide range of organisations and funding bodies including Network Rail and various government departments including DEFRA and the Environment Agency.

## Assurance Pathway and Approval Route

| Assurance pathway                      | Approval route  | Forecast approval date |
|--|---|------------------------|
| 1, 2, 3 and 4 (business justification) | Recommendation: Combined Authority's Programme Appraisal Team<br>Decision: Combined Authority                           | 02/02/2023             |
| 5 (delivery)                           | Recommendation: Combined Authority's Programme Appraisal Team<br>Decision: Combined Authority's Chief Operating Officer | 31/12/2023             |

## Other Key Timescales

4.53 Key timescales include:

- December 2020 –Scheme started to be delivered on site.
- December 2023 – completion of the scheme.

## Assurance Tolerances

| Assurance tolerances  |
|---|
| Combined Authority costs remain within those outlined in this report<br>Delivery (DP5) timescales remain within 3 months of those outlined in this report.<br>Outputs remain within -10% of those outlined in this report |

## Appraisal Summary

4.54 The scheme aims to support inclusivity, help tackle the climate emergency, and build resilience to extreme weather events through delivery of a package of measures that provide improved protection against flooding of the River Aire in Leeds.

4.55 The submitted business case highlights the ability for the scheme to provide very high value for money as well as significant carbon savings as a result of the protection afforded by the scheme. The scheme will protect existing businesses, homes and key infrastructure, from flooding, which will ensure the economy remains resilient. It will also protect development land from flooding which will encourage businesses to continue to grow and invest in the area boosting productivity and ensuring accessibility to key transport routes.

4.56 The scheme is already in delivery and the remaining funding will safeguard its completion and facilitate the realisation of the outputs and benefits expected by the scheme.

## 5 Recommendations

5.1 The Combined Authority approves:

- (i) The Leeds Flood Alleviation Scheme (Step 2) scheme proceeds through Decision Point 1 to 4 (business justification) and work continues on activity 5 (delivery), subject to assurances on a two outstanding questions from Government's Department for Business, Energy, and Industrial Strategy (BEIS).
- (ii) Approval to the Combined Authority's contribution of £12,565,000 is given. The total scheme cost is £125,826,000.
- (iii) The Combined Authority enters into a funding agreement with Leeds City Council for expenditure of up to £12,565,000.
- (iv) Future approvals are made in accordance with the assurance pathway and approval route outlined in this report. This will be subject to the scheme remaining within tolerances outlined in this report.

### **Projects in Stage 2: Scheme development**

5.2 There are no schemes to review at this stage.

### **Projects in Stage 3: Delivery and Evaluation**

5.3 There are no schemes to review at this stage.

## **6 Tackling the Climate Emergency implications**

6.1 The Climate Emergency implications have been considered on all projects included in this report as part of their business case development.

## **7 Inclusive Growth implications**

7.1 The inclusive growth implications have been considered on all projects included in this report as part of their business case development.

## **8 Equality and Diversity implications**

8.1 Equality Impact Assessments (EQIA) have been undertaken on all projects included in this report as part of their business case development.

## **9 Financial implications**

9.1 The report seeks endorsement to expenditure from the available Combined Authority funding as set out in this report.

## **10 Legal implications**

10.1 The payment of funding to any recipient will be subject to a funding agreement being in place between the Combined Authority and the organisation in question.

## **11 Staffing implications**

- 11.1 A combination of Combined Authority and local partner council project, programme and portfolio management resources are or are in the process of being identified and costed for within the schemes in this report.

## **12 External consultees**

- 12.1 Where applicable scheme promoters have been consulted on the content of this report.

## **13 Recommendations (Summary)**

### **Capital Flood Risk Management Programme**

- 13.1 The Combined Authority approves that:

- (i) The Capital Flood Risk Management Programme proceeds through decision point 1 (strategic assessment) and work commences on the development of individual business cases.
- (ii) Development costs of £113,735 are approved taking the total scheme approval to £113,735.
- (iii) The principal that £10,000,000 of Combined Authority funding is utilised in order to engage and leverage funding from other funding sources and that work commences on the development of individual business cases, which will seek approval through the Assurance Framework.
- (iv) Approval of individual business cases through the Assurance Framework is delegated to the Place, Regeneration Housing Committee.
- (v) Future approvals are made in accordance with the assurance pathway and approval route outlined in this report and where required, any change requests for the Capital Flood Risk Management Programme are delegated to the Place, Regeneration and Housing Committee. This will be subject to the scheme remaining within the tolerances outlined in this report.

### **Leeds Flood Alleviation Scheme 2**

- 13.2 The Combined Authority approves that:

- (i) The Leeds Flood Alleviation Scheme (Step 2) scheme proceeds through Decision Point 1 to 4 (business justification) and work continues on activity 5 (delivery), subject to assurances on a two outstanding questions from Government's Department for Business, Energy, and Industrial Strategy (BEIS).
- (ii) Approval to the Combined Authority's contribution of £12,565,000 is given. The total scheme cost is £125,826,000.
- (iii) The Combined Authority enters into a funding agreement with Leeds City Council for expenditure of up to £12,565,000.

- (iv) Future approvals are made in accordance with the assurance pathway and approval route outlined in this report. This will be subject to the scheme remaining within tolerances outlined in this report.

### **Additional approval - Brownfield Housing Programme delegation for pipeline of schemes**

13.3 The Combined Authority approves that:

- (i) The existing delegation, as approved by the Combined Authority in July 2021, to the then Director of Delivery to make changes to the pipeline of schemes in the Brownfield Housing Programme, transfers to the Director of Policing, Environment and Place.

### **BHF Armley Tower Works**

13.4 The Combined Authority approves that, subject to the conditions set by the Programme Appraisal Team:

- (i) The BHF Armley Tower Works scheme proceeds through decision point 2-4 (business justification) and work commences on activity 5 (delivery).
- (ii) Approval to the Combined Authority's contribution of £932,775 is given. The estimated total scheme cost is £9,909,032.
- (iii) The Combined Authority enters into a funding agreement with Yorkshire Housing Ltd for expenditure of up to £932,775.
- (iv) Future approvals are made in accordance with the assurance pathway and approval route outlined in the original report. This will be subject to the scheme remaining within the tolerances outlined in the original report.

### **BHF Galem House**

13.5 The Combined Authority approves that, subject to the conditions set by the Programme Appraisal Team:

- (i) The BHF Galem House scheme proceeds through decision point 4 (full business case) and work commences on activity 5 (delivery)
- (ii) Approval to the Combined Authority's contribution of £1,200,000 is given. The total scheme cost is £9,752,717.
- (iii) The Combined Authority enters into a funding agreement with Trident House Development Limited for expenditure of up to £1,200,000.
- (iv) Future approvals are made in accordance with the assurance pathway and approval route outlined in the original report. This will be subject to the scheme remaining within the tolerances outlined in this report.

## **14 Background Documents**

14.1 None as part of this report.

## **15 Appendices**

**Appendix 1 - Background to the Combined Authority's Assurance Framework**

**Appendix 2 – Leeds Flood Alleviation Scheme 2 – Business Case Summary**