

Section A: Scheme Summary

Name of Scheme:	Flood Alleviation Programme
PMO Scheme Code:	GD-PA4-020
Lead Organisation:	Environment Agency
Senior Responsible Officer:	Adrian Gill
Lead Promoter Contact:	Mark Wilkinson
Applicable Funding Stream:	Growth Deal 3
Growth Fund Priority Area (if applicable):	Priority 4 Infrastructure for Growth and Priority 3 – Clean Energy & Environmental Resilience
Forecasted Full Approval Date (Decision Point 5):	September 2017 onwards
Forecasted Completion Date:	March 2021
Total Scheme Cost (£):	£77,000,000
WYCA Funding (£):	£20,000,000 (including £7.8m approved and released for Phase 1)
Total other public sector investment (£):	£56,800,000
Total other private sector investment (£):	£200,000
Is this a standalone Project?	No
Is this a Programme?	Yes
Is this Project part of an agreed Programme?	Phase 1 of the programme approved and £7.8m released March 2017
Current Funding Allocation:	£20m allocation within the Growth Deal 3 allocation.

Current Assurance Process Activity: 2



Scheme Description:

The risks to 63,000 homes, 31,000 businesses and critical infrastructure sites from flooding have been clearly illustrated by repeated flooding episodes in the last decade, including the devastating floods of December 2015 that hit the City Region. The SEP identifies a headline initiative to develop an “integrated flood risk reduction programme” to address the urgent need for greater resilience against flooding to protect and retain businesses and employment, and to maintain the transport network. Local Growth Fund Investment will accelerate, enhance and unlock joint schemes planned for delivery by the Environment Agency, local authorities and other partners, contributing to and matching other funding sources already identified and secured.

An indicative programme has been developed, of flood risk management projects that will improve the resilience of businesses in the parts of the Leeds City Region which are both currently affected by high flood risk where jobs and businesses could be lost as a result of recent flood events and the likelihood of recurrence; and those where planned future development could be slowed or constrained by flood risk. In addition, they will mitigate the risk of disruption or loss of access to these areas which would affect current and potential business viability.

Investing in resilience against flooding and ensuring the resilience of the transport network will safeguard existing jobs and businesses, especially in the strategically important manufacturing sector – as well as enabling further growth in jobs and housing by reducing the constraints posed by flood risk and transport network resilience.

Flood risk management projects in the indicative programme are:

- Calderdale: Mytholmroyd, Brighouse & Clifton
- Leeds: Wyke Beck Valley/Aire Valley Enterprise Zone, Kirkstall Road
- Bradford: Canal Road corridor
- Wakefield: Castleford
- Kirklees: Leeds Road corridor
- North Yorkshire: Skipton
- Natural Flood Management Projects

The Mytholmroyd, Skipton and Leeds Kirkstall Road schemes formed Phase 1 of the Flood Alleviation Programme and received £7.8m Growth Deal funding in March 2017.

The LCR Flood Alleviation Programme will deliver:

- Flood defence walls
- Upstream flood storage reservoirs
- Channel realignment/remaindering
- Pump drainage
- Weirs

Natural Flood Management measures will also be implemented:

- Trees planted
- Wooded debris dams/leaky dams
- Soak aways
- Peat restoration

Outputs generated will include:

- Fluvial flood resilience interventions
- Improved highways assets to reduce surface water flood risk
- **Existing jobs and businesses safeguarded**
- Fluvial flood risk reduction schemes
- **Employment/ development land with reduced flood risk**
- Improved surface water drainage
- Upland catchment area improved to assist in reducing flow into rivers.

Beneficiaries of the proposed schemes are wide ranging. Businesses and residents will regain insurance and property values due to the schemes. Existing businesses will see their flood risk protection improved and a better chance of securing flood insurance into the future which in turn will enable them to be more resilient and recover quickly, as well as support any growth aspirations. They will also provide new and existing businesses the opportunity to grow and create new jobs. The projects will provide properties currently at risk of flooding with improved protection from future flooding events.

Business Case Summary:

<p>Strategic Case</p>	<p>The projects in the programme will directly contribute towards two of the LEP's headline initiatives:</p> <p>Priority 3 – Clean Energy & Environmental Resilience through Initiative 7 – Make climate adaptation and high quality green infrastructure integral to improve the city region economy and its spatial priority areas.</p> <p>The FFRS in the programme will:</p> <ul style="list-style-type: none"> • create areas of high quality Green Infrastructure; • Increase tree coverage which will provide carbon sequestration benefits and contribute towards fighting climate change. <p>Priority 4 - Infrastructure for Growth through Initiative 10 - Develop an integrated flood risk reduction programme, incorporating flood defences, green infrastructure and resilient development.</p>
<p>Commercial Case</p>	<p>The projects resulting from the programme will provide resilience and confidence in future economic expansion.</p> <p>The projects will be procured through the Water and Environment Management framework as used for the Phase 1 flood alleviation projects.</p>

Economic Case

The flood risk reduction schemes (FRRS) in the indicative programme will:

- reduce the risk of fluvial and surface water flooding to existing homes and business and safeguard jobs;
- enable land currently at risk from flooding to be unlocked for development to provide capacity for new commercial floor space and housing expansion;
- act as a catalyst for wider development of the areas, facilitating delivery of new houses, highway improvements and creation of jobs.

The programme will deliver the below economic outputs that have been calculated by the local authority partners from a variety of sources - business demand analysis, Regional Econometric Model forecasts, existing and developing Local and Economic Development Plans and the Employment Densities Guide (2010).

SEP Headline Indicator	Direct	Indirect
Jobs created / Safe Guarded	11,100	45,160
Businesses created /assisted	1260	321

Furthermore, the schemes will also contribute towards Priority 1: Growing Business as reducing flood risk throughout LCR will support the growth of businesses by reducing uncertainty and encouraging further investment in the area.

Financial Case

The projects in the indicative programme will be funded by a number of confirmed match funding sources , including:

- Flood Defence Grant in Aid
- The Yorkshire Regional Flood and Coastal
- The Defra Growth Fund
- Local Authority contributions
- Yorkshire Water contributions
- Calderdale Booster Fund
- Recovery funding

The WYCA funding profile cost profile reflects delivery from 2017 to 2021 and is as follows:

	16/17	17/18	18/19	19/20	TOTAL
Mytholmroyd (Phase 1)	£2.5				
Skipton (Phase 1)	£1.5				
Leeds Kirkstall Road (Phase 1)	£3.8				
LCR Natural Flood Management		£1.7			
Wyke Beck & Aire Valley		£2.6			
Bradford Canal Road Corridor			£2.3		

	<table border="1"> <tr> <td>Kirklees Leeds Road corridor</td> <td></td> <td></td> <td>£1.2</td> <td></td> <td></td> </tr> <tr> <td>Brighouse & Clifton</td> <td></td> <td></td> <td></td> <td>£3.4</td> <td></td> </tr> <tr> <td>Castleford</td> <td></td> <td></td> <td></td> <td>£2.7</td> <td></td> </tr> <tr> <td>TOTAL LGF (£m)</td> <td>£7.8</td> <td>£4.3</td> <td>£3.5</td> <td>£6.1</td> <td>£21.7*</td> </tr> </table>	Kirklees Leeds Road corridor			£1.2			Brighouse & Clifton				£3.4		Castleford				£2.7		TOTAL LGF (£m)	£7.8	£4.3	£3.5	£6.1	£21.7*
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	<p>* The package of projects have been over programmed by £1.7m. The projects will be subject to ongoing cost review and challenge throughout the contract negotiations with the expectation that efficiencies will be achieved. The risk of any shortfall in funding will be addressed through other available funding options.</p>																								
Management Case	<p>Each project will be overseen by a Project Board comprising as a minimum:</p> <ul style="list-style-type: none"> • Project Sponsor • Project Manager • Senior User / Asset Maintainer • Senior Supplier <p>The Project Manager will be responsible for the day-to-day delivery of the project within tolerances defined by the Project Board. Approval must be given prior to the tolerances being exceeded.</p> <p>Reporting on progress against programme and budget is required monthly from all suppliers. This information is then summarised by the Project Manager into a highlight report and fed into the Environment Agency through the Project Board. The highlight also identifies changes, key project risks and issues. Where changes are likely to exceed the approved tolerances the Project Manager is required to obtain Project Board approval before these can be authorised.</p>																								