Summary of main issues

1. There is a long history of flooding from the River Wharfe in the Otley, the most recent occurrence during Storm Eva on 26th December 2015 (See Figure 1 – Flooding at Farnley Lane 26th December 2015)

2. The Environment Agency and Leeds City Councils Highways Board have previously approved funding to undertake option appraisal and develop an Outline Business Case (OBC) for a future Otley Flood Alleviation Scheme (OFAS).

3. Outline Business Case approval is required from the Environment Agency in order to secure funds necessary to progress with detailed design & construction of Otley Flood Alleviation Scheme.

4. Planning Approval is required and needs to progress in parallel with the Outline Business Case approval to meet the current planned programme.

5. The site is listed as number 17 in the List of Measures in the Leeds Local Flood Risk Management Strategy.

6. The Otley Flood Alleviation Scheme meets Leeds Best Council Plan by supporting communities
**Recommendations**

The Executive Board is requested to:

i. To inject the remaining £1,509,000 of available Government Grant funding into the scheme.

ii. To give approval to inject £1,328,000 of Central Contingencies to underwrite the currently identified funding gap on the scheme to ensure the delivery of the scheme.

iii. To give approval to submit the Outline Business Case, contained in confidential Appendix D, to the Environment Agency.

iv. To give approval to submit the Planning Application.

v. To give approval to incur additional expenditure of £260,000 to support the Outline Business Case submission and planning application in order to enable the scheme to progress on programme.

vi. To give approval to incur expenditure, following the approval of the Outline Business Case, of £399,000 to develop the detailed design of Otley FAS in order to enable the scheme to progress on programme.

vii. To delegate authority to spend (ATS) approval of the full scheme to the Director of City Development, subject to agreement with the Executive Member for Environment and Active Lifestyles.
1 Purpose of this report

1.1 To note the issues with flooding in the area in Otley where residential properties and business are at risk of flooding from the river Wharfe.

1.2 To request authority to submit the Outline Business Case & Planning Application

1.3 To request authority to incur expenditure required to take the scheme though to completion.

1.4 To highlight the current funding shortfall and seek support for additional funding to be sought from the Strategic Investment Board whilst alternative funding opportunities are explored.

2 Background Information

2.1 The historic market town of Otley in West Yorkshire lies at the bridging point on the River Wharfe and has a long history of being at risk of flooding. The first recorded flood event was in 1935 and since then there have been multiple significant events which have flooded homes and businesses and severely affected the local community, most recently in winter 2015.

2.2 Flooding in Otley has historically been caused by a combination of heavy rainfall and snowmelt, although the three events in November and December 2015 were due to extreme volumes of rainfall arriving at times of existing high river flows. On Boxing Day 2015, the Wharfe experienced its highest flow levels on record resulting in flooding that exceeded current or historic drainage design standards for all sections of drainage infrastructure. A total of 74 properties were flooded, 59 of which (55 residential, 4 commercial) had internal flooding.

2.3 The LCC Section 19 Report, which was written following the 2015 flood events, identified that the main source of floodwater in Otley is from overtopping of the Wharfe which then inundates flood plains and old gravel pits adjacent to the Wharfe when channel capacity is exceeded. The report also found that the two tributaries of the Wharfe; Hol beck and Kel Beck, may also contribute to flooding of properties on the left bank of the Wharfe.

2.4 In the Autumn Statement 2016, the Government announced that it would provide up to £2m Booster Funding to accelerate a scheme to better protect homes and businesses in Otley from flooding.

2.5 Environment Agency funding of £491,000 has previously been secured to progress the feasibility study, undertake a comprehensive appraisal, and subsequently submit an Outline Business Case (OBC).

2.6 Council approval was obtained in September 2018 and gave authority to spend £443,000 to develop the scheme up to Outline Business Case (OBC). This comprised £397,000 Government Grant funding and £46,000 of capital funds from existing FRM
capital programme, to cover project management costs and develop the Outline Business Case (OBC).

2.7 The current forecast for costs up to Outline Business Case submission of £703,000 are in excess of the £443,000 authority to spend approved. Therefore an additional authority to spend of £260,000 will be required to complete this phase of works.

2.8 It is proposed that the Outline Business Case (OBC) and planning application will be submitted in summer 2019 for approval.

2.9 The preferred option comprises two main elements of work, construction of an embankment running parallel with Billams Hill and management of vegetation on the Islands downstream of Otley Weir. Ongoing discussions are taking place to determine the extent of additional works required mitigate the impact of the proposed vegetation management works. An indicative plan of the scheme is included in Appendix A.

2.10 The proposed scheme provides a standard of protection of up to a 1 in 25 year flood event (4% annual exceedance probability), which is in excess of the Storm Eva event. This was the highest standard of protection achievable without undertaking works to defend properties from the secondary flood route across Wharfe meadows which was both prohibitively expensive and unpopular locally.

2.11 The benefits of the scheme will be eroded over the scheme’s lifetime due to the predicted impact of climate change. Flood risk will still however be significantly less in the future with the scheme in place than without it. The overall benefit/cost ratio of the scheme is 6:1 so therefore represent a good investment of funds.

2.12 The current capital cost estimate of £3,374,000 for the project through to construction includes £829,000 optimism bias. It is therefore highly likely that additional funds will need to be sought in addition to the current £2,000,000 ‘booster funding’ and £46,000 LCC Capital funding currently allocated to the project.

2.13 The currently identified funding gap could be met by utilising £1,328,000 of Central Contingencies to ensure the delivery of the scheme by the end of 2020 in time to utilise the previously allocated £2,000,000 of ‘booster funding’ from central government as identified in the Autumn 2016 Statement.

2.14 A number of options will be explored to draw additional funding into the project in order to reduce Leeds City Council’s capital commitments. A Local Levy Funding bid for up to £664,000 has been submitted and proposes to split these additional costs equally, a request could be made to government for additional ‘Booster funding’ (given that we are only requesting £500,000 out of the original £2,000,000 made available), Section 106 Developer contributions, ESIF funding and seeking efficiency savings throughout the detailed design process to reduce overall costs.
3 Main Issues

3.1 As described above Otley has known and proven flood risk and doesn't currently benefit from any formal flood defences.

3.2 The Government announcement of up to £2m ‘Booster’ funding in the 2016 Autumn Statement was accompanied with a requirement to deliver better flood protection in the form of a flood alleviation scheme by end of 2020.

3.3 A study to improve modelling information for the Wharfe Catchment and Otley has now been completed.

3.4 Feasibility and outline design development work to date has identified a preferred option. The results of these works have been fed back to the community via a ‘drop in’ event in February 2019. See Appendix A – Otley FAS drop in material for further information.

3.5 An Outline Business case has been developed which follows the Environment Agency’s 5 case business case format. Covering strategic, economic, commercial, financial and management issues. Outline Business case approval is required in order to release the remaining ‘Booster’ funding to complete the project. The Draft Outline Business Case is attached in Appendix D. Appendix C provides an Executive Summary of the Outline Business Case with the commercial and financial business cases excluded for the reasons outlined in paragraph 4.7.2.

3.6 The preferred option provides a standard of protection of 4% annual exceedance probability which is in excess of the Storm Eva event. A greater standard of protection was not found to be justifiable based on both economics and visual impact.

3.7 The Outline Business Case demonstrated that the preferred option is eligible for up to £1,500,000 Flood Defence Grant in Aid funding. The total central government funding remains at £2,000,000 as we have been advised that the Booster funding allocation is a maximum amount to been offset by any eligible Grant in Aid funding.

3.8 The next phase of work is to submit the Outline Business case for Environment Agency approval, obtain Planning approval and finalise the detailed design before moving onto the construction phase.
3.9 The current programme summary can be found in the table below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Planned Finish Date</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility</td>
<td>01/07/2018</td>
<td>Complete</td>
</tr>
<tr>
<td>Outline design</td>
<td>26/06/2019</td>
<td>In Progress</td>
</tr>
<tr>
<td>Executive Board Approval Submission</td>
<td>17/05/2019</td>
<td>In Progress</td>
</tr>
<tr>
<td>Executive Board Approval</td>
<td>26/06/2019</td>
<td></td>
</tr>
<tr>
<td>Outline business case approval</td>
<td>31/12/2019</td>
<td></td>
</tr>
<tr>
<td>Planning approval</td>
<td>31/12/2019</td>
<td></td>
</tr>
<tr>
<td>Detailed Design</td>
<td>28/02/2020</td>
<td></td>
</tr>
<tr>
<td>Construction Start</td>
<td>01/06/2020</td>
<td></td>
</tr>
<tr>
<td>Construction finish</td>
<td>30/11/2020</td>
<td></td>
</tr>
</tbody>
</table>

4 Corporate Considerations

4.1 Consultation and Engagement

4.1.1 Regular consultation and engagement has been carried out and continues at regular intervals with the Leader, Executive Members (Regeneration, Transport and Planning, Environment and Sustainability & Environment and Active Lifestyles), Ward Members, the local MP and local residents throughout the process. This is done through, one to one briefings, Quarterly newsletters and face to face consultation events.

Summary of recent consultation and engagement

- Leader Briefing - 15th May 2019
- Executive Member for Environment and Active lifestyles Briefing – 21st May 2019
- Ward Member Briefing – 11th June 2019
- Community drop-in event - 28th Feb 2019
- Landowner engagement – 22nd May 2019

4.1.2 The scheme was included in the public consultation on the Local Strategy for Flood Risk Management for Leeds City Council.
4.2 Equality and Diversity / Cohesion and Integration

4.2.1 An EDCI screening has been completed and is attached as Appendix B. This indicated that an Equality Impact Assessment is not required for what is being proposed.

4.2.2 It should be noted that by carrying out these works the Council will be ensuring the safety of the local community and in particular more vulnerable residents such as those who are elderly or have a disability and may struggle to get to safety if flooding occurred.

4.3 Council Policies and Best Council Plan

4.3.1 The proposed works will provide improvements to the community and the neighbourhood by reducing the risk of flooding to this area.

4.3.2 The Council is meeting its responsibility as Lead Local Flood Authority in reducing flood risk.

4.3.3 This scheme is in accordance with the Council’s Local Flood Risk Management Strategy and is considered as one of the high priority schemes within the List of Measures to be taken.

4.3.4 Climate Emergency

4.3.4.1 At Full Council on 27 March 2019, Leeds City Council passed a motion declaring a Climate Emergency. In addition, the Leeds Climate Commission have proposed a series of science based carbon reduction targets for the city so that Leeds can play its part in keeping global average surface temperatures to no more than 1.5°C. A ‘City Conversation’ is planned for the summer of 2019, to raise awareness, review and refine the options and to start to build public, business and political support for transformative action. Responding to the threats posed by the predicted future impacts of climate change (such as the increased risk of local flooding) is an important issue for the city and can be seen through the development of the Leeds Flood Alleviation Scheme which is aiming to achieve a 1 in 200 year standard of protection, to match that of the floods caused by Storm Eva.

4.3.4.2 The proposed scheme for Otley will help to reduce the impacts of flooding and therefore partly adapt to the predicted future impacts of climate change. Throughout the detailed design process options to reduce carbon emissions associated with the construction will be considered where appropriate. These may include measures to reduce the carbon footprint of the scheme itself as well as emissions associated with construction vehicles and movement of staff.

4.3.4.3 Ongoing discussions are taking place to determine the extent of additional works required mitigate the impact of the proposed vegetation management works.
4.4 **Resources and value for money**

4.4.1 The estimated cost of the Feasibility and Outline Design works necessary to reach Outline Business Case and Planning approval is £703,000.

4.4.2 The estimated cost of the Detailed Design works required is £399,000.

4.4.3 The estimate cost of the scheme Construction Phase is £2,272,000.

4.4.4 The overall project provides a benefit to cost ratio of 6:1.

4.4.5 The total capital cost of the scheme is estimated to be £3,374,000. The current status of potential funding sources is summarised below:

<table>
<thead>
<tr>
<th>Total Scheme cost</th>
<th>£3,374,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secured funding Source</strong></td>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Central Government Grant</td>
<td>£2,000,000</td>
</tr>
<tr>
<td>Leeds City Council</td>
<td>£1,374,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Funding being sought</strong></th>
<th><strong>Value</strong></th>
<th><strong>Status</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Levy</td>
<td>£664,000</td>
<td>Application submitted 14th May 2019</td>
</tr>
<tr>
<td>ESIF</td>
<td>TBC</td>
<td>Initial enquiry as to availability of funding for this project made 14th April 2019.</td>
</tr>
<tr>
<td>S106</td>
<td>TBC</td>
<td>One development identified. Initial discussions held with developer.</td>
</tr>
</tbody>
</table>
### 4.5 Capital Funding and Cash Flow

<table>
<thead>
<tr>
<th>Funding Approval</th>
<th>Capital Section Reference Number :</th>
<th>32912</th>
</tr>
</thead>
</table>

#### Previous total Authority to Spend on this scheme

<table>
<thead>
<tr>
<th>Item</th>
<th>TOTAL 2019</th>
<th>TO MARCH</th>
<th>FORECAST 2019/20</th>
<th>2020/21</th>
<th>2021/22</th>
<th>2023/24</th>
<th>2024 on</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND (1)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRUCTION (3)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FURN &amp; EQPT (5)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESIGN FEES (6)</td>
<td>397.0</td>
<td>397.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER COSTS (7)</td>
<td>46.0</td>
<td>46.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>443.0</strong></td>
<td><strong>443.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
</tr>
</tbody>
</table>

#### Authority to Spend required for this Approval

<table>
<thead>
<tr>
<th>Item</th>
<th>TOTAL 2019</th>
<th>TO MARCH</th>
<th>FORECAST 2019/20</th>
<th>2020/21</th>
<th>2021/22</th>
<th>2023/24</th>
<th>2024 on</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND (1)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRUCTION (3)</td>
<td>2236.0</td>
<td>2236</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FURN &amp; EQPT (5)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESIGN FEES (6)</td>
<td>616.0</td>
<td>121.8</td>
<td>494.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER COSTS (7)</td>
<td>79.0</td>
<td>7.0</td>
<td>36.0</td>
<td>36.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>2931.0</strong></td>
<td><strong>128.8</strong></td>
<td><strong>530.2</strong></td>
<td><strong>2272.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
</tr>
</tbody>
</table>

#### Total overall Funding (As per latest Capital Programme)

<table>
<thead>
<tr>
<th>Item</th>
<th>TOTAL 2019</th>
<th>TO MARCH</th>
<th>FORECAST 2019/20</th>
<th>2020/21</th>
<th>2021/22</th>
<th>2023/24</th>
<th>2024 on</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCC Supported Borrowing</td>
<td>1374.0</td>
<td>80.8</td>
<td>36.0</td>
<td>1257.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Contribution</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Receipt</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Grant</td>
<td>2000.0</td>
<td>491.0</td>
<td>494.2</td>
<td>1014.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Other Income (Specify)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Funding</strong></td>
<td><strong>3374.0</strong></td>
<td><strong>571.8</strong></td>
<td><strong>530.2</strong></td>
<td><strong>2272.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
<td><strong>0.0</strong></td>
</tr>
</tbody>
</table>

**Balance / Shortfall = 0.0**

---

### 4.6 Revenue Effects

#### 4.6.1 LCC & The Environment Agency (EA) have a strong working partnership and this project represents an opportunity to work collaboratively to achieve a common goal for the Wharfe catchment. LCC, as Lead Local Flood Authority, will be the lead delivery partner with support from the EA, up until completion of the construction phase. Following construction the Environment Agency will then take responsibility for ongoing maintenance costs of the scheme.
4.7 Legal Implications, Access to Information and Call In

4.7.1 The proposed works will develop options to reduce flood risk in Otley. The content of the report is a Key Decision and is subject to Call In.

4.7.2 The information contained in Appendix D is exempt under Access to Information Rule 10.4 (3) as it contains information relating to the financial or business affairs of any particular person (including the authority holding that information). It is considered that the public interest in maintaining the content of Appendix D as exempt outweighs the public interest in disclosing the information. Appendix D is confidential as disclosing the cost estimate may affect the Council’s ability to secure the best financial outcome through competition.

4.7.3 Appendix C provides an Executive Summary of the Outline Business Case with the commercial and financial business cases excluded for the reasons outlined in 4.7.2 above.

4.8 Risk Management

4.8.1 The latest cost estimate developed as part of the Outline Business Case includes a 45% Optimism bias in accordance with Environment Agency appraisal guidelines. This equates to £824,000 and it to cover unforeseen risks and contingency allowances. There is a low risk of potential overspend due risks exceeding this limit. In the event of costs rising beyond the current estimate additional funds will need to be sought in order to complete the construction phase.

5 Conclusions

5.1 Options have been assessed and appraised in order to identify the best solution to reduce flood risk in Otley.

5.2 Environment Agency Grant in Aid funding combined with Booster funding provides an opportunity to progress the preferred option.

5.3 To meet the deadline of completion the scheme by the end of 2020 works must continue to progress in line with the current programme.

5.4 Financial certainty is required to enable works to continue to progress whilst further funding opportunities are explored.
6 Recommendations

6.1 The Executive Board is requested to:

i. To inject the remaining £1,509,000 of available Government Grant funding into the scheme.

ii. To give approval to inject £1,328,000 of Central Contingencies to underwrite the currently identified funding gap on the scheme to ensure the delivery of the scheme.

iii. To give approval to submit the Outline Business Case, contained in confidential Appendix D, to the Environment Agency.

iv. To give approval to submit the Planning Application.

v. To give approval to incur additional expenditure of £260,000 to support the Outline Business Case submission and planning application in order to enable the scheme to progress on programme.

vi. To give approval to incur expenditure, following the approval of the Outline Business Case, of £399,000 to develop the detailed design of Otley FAS in order to enable the scheme to progress on programme.

vii. To delegate authority to spend (ATS) approval of the full scheme to the Director of City Development, subject to agreement with the Executive Member for Environment and Active Lifestyles.

7 Background documents

7.1 None.

8 Appendices

8.1 Appendix A – Otley FAS - Drop in Material 28th Feb 2019

8.2 Appendix B – Equality Impact Assessment

8.3 Appendix C – Otley FAS – Draft Outline Business Case - Executive Summary

8.4 Appendix D - Otley FAS - Draft Outline Business Case - exempt from publication under the provisions of Access to Information Procedure Rule 10.4(3)

---

1 The background documents listed in this section are available to download from the Council’s website, unless they contain confidential or exempt information. The list of background documents does not include published works.
Figure 1 – Flooding at Farnley Lane 26th December 2015