Summary of main issues

1. There is a known history of property flooding in the Westfiields Area of Allerton Bywater. An existing stretch of open watercourse flows into a 225mm Diameter Culvert, In heavy rain, flows back up and flow overland, causing flooding of roads, gardens & property.

2. Internal flooding occurred to 12 residential properties in 2014, with a further 28 reported as at imminent risk of internal flooding.

3. The benefits of the proposed scheme will be a significant reduction in the risk of flooding to 40 residential properties and parts of Leeds Road, Allerton Bywater. The proposed scheme will not create a negative impact on homes upstream and downstream of this site.

5. The Westfields Flood Alleviation Scheme has gained Business Case approval from the Environment Agency’s National Project Assurance Board and has been allocated £295,000 of Flood Defence Grant in Aid.

Recommendations

6. The Executive Board is requested to:

   i) approve the implementation of the Westfield Flood Alleviation scheme at Westfield shown in Appendix A on drawing FRM/253271/001 rev B;

   ii) give authority to incur expenditure of £472,000 on the Westfield Flood Alleviation scheme, funded by LCC Capital resources £177,000 and Environment Agency grant £295,000; and

   iii) agree that the Chief Officer (Highways & Transportation) will be responsible for the delivery of the scheme.

1 Purpose of this report

1.1 To note the issues with flooding the Westfield area in Allerton Bywater where residential properties are at risk from flows surcharging from the the culvert upstream.

1.2 To give authority to incur expenditure on the proposed flood alleviation works.

2 Background Information

2.1 This Project is one of a continual comprehensive programme of Flood Alleviation Schemes throughout the Leeds City Council area, which also includes the Leeds Flood Alleviation Scheme. Phase 1 is a £50m scheme that will be completed and operational by Summer 2017 and will provide a 100yr plus allowance for Climate change standard of protection for the city centre. Phase 2 is underway with modelling and option appraisal work ongoing with the aim of submitting a business case for a catchment wide scheme that will look to protect Leeds upstream of the train station with an estimated value of £65m. Other key flood risk areas within the city will also see schemes developed over the new 3-4 years with a dedicated scheme for Otley among them including a £2m capital contribution from Defra Flood Defence Grant in Aid. A circa £2.5m catchment programme is being developed along the Wyke Beck corridor which will include a £1.6m flood storage area that will enable housing growth and enhance the green infrastructure in the area. The South-West of the City has suffered extensive and repeated flooding in recent years and although wasn’t directly affected by Storm Eva in December 2015 remains a priority for the FRM teams as such the Westfields FAS at Allerton Bywater represents and important and extremely positive development in tackling flood risk in this area. The FRM team have been developing this scheme by working closely with colleagues across a wide range of department in the council and also with local elected members and the community.

2.2 There is a known history of property flooding in the Westfield Area of Allerton Bywater. An existing stretch of open watercourse flows into a 225mm Diameter Culvert, In heavy rain, flows back up and flow overland, causing flooding of Roads,
gardens and property. Internal flooding occurred to 12 residential properties in 2014, with a further 28 reported as at imminent risk of internal flooding. A similar event occurred in 2015 where no internal flooding occurred, but many properties were reported as being at imminent risk of flooding.

2.3 Flooding incident reports indicate the source of the flooding is the direct result of the flows surcharging from the culvert upstream as well surface water runoff outside of Westfield bungalows.

2.4 The properties at risk and key site features are shown in Appendix C in Figures 1& 2.

3 Main Issues

3.1 The proposed flood alleviation scheme is shown in Appendix C in Figure 3 “Proposed construction of drainage system at Westfields”. The scheme involves construction of a new bypass culvert (approx. 205 metres in length) to convey flood flows from the watercourse into the nearby washland area south of Leeds Road. New road gullies and carrier drains will be installed in the Westfields area to drain surface water from unadopted highways into the new bypass culvert.

New road gullies will also be installed in Blands Avenue and connected into a second new culvert to be constructed from Blands Avenue to south of Leeds Road.

To the south of Leeds Road, a ditch will be constructed within farmland along the field boundary to channel flows from the new culverts into the washlands area, the ditch will be approx. 0.5m in depth and approx. 190m long. Flap valves will be installed to prevent water backing up into the culvert if water levels in the washland are elevated.

3.2 The benefits of the proposed scheme will be a significant reduction in the risk of flooding to 40 residential properties. It will also provide drainage to currently undrained residential streets.

3.3 A planning application is not required as planning permission is granted by Part 13, Class C of that Order. Class C, ‘development by drainage bodies’; for the purposes of Class C a ‘drainage body’ has the same meaning as in Sec.72(12) of the Land Drainage Act 1991.

3.4 The proposed works take place on Land owned by a number of landowners including Leeds city council housing, public highways & privately owned land, the washlands are owned by the Environment Agency.

3.5 Trial trenches have been undertaken to identify the location of services within the two Leeds Road crossings and this information to inform the design process.

3.6 A preliminary ecological appraisal report has also been undertaken by Mouchel consulting in May 2016 and have found no ecological issues within the immediate area.

3.7 It is intended to undertake the works in the summer months of the 2017/18 financial year.
4 Corporate Considerations

4.1 Consultation and Engagement

4.1.1 Regular consultation and engagement has been carried out with local residents, parish council, ward councillors, the Environment Agency, Yorkshire Water Services and all affected landowners. Newsletters and project updates will be distributed as the scheme progresses.

4.1.2 Further engagement will take place as the scheme is constructed.

4.1.3 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 Councils Local Flood Risk Management Strategy and is considered as one of the high priority schemes within the List of Measures to be taken.

4.4 Resources and value for money

4.4.1 The total estimated scheme cost is £502,000. This comprises £40,000 for staff design and construction supervision costs, £32,000, for site investigations, land compensation and surveys, and £430,000 for the main construction works. Of this, £30,000 is to be charged to a separate Housing capital scheme per an agreed contribution which already has the required authority to spend, so the authority to spend required for this Highways FRM capital scheme is £472,000.

4.4.2 The overall scheme cost of £502,000 will be funded from three sources: Environment Agency - Flood Defence Grant in Aid (FDGiA) £295,000, Leeds City Council Capital Resources £177,000 and Leeds City Council Housing Capital Contribution £30,000.
### 4.4.3 Capital Funding and Cash Flow

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<thead>
<tr>
<th>Funding Approval:</th>
<th>Capital Section Reference Number: -</th>
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<tr>
<td>Previous total Authority to Spend on this scheme</td>
<td>TOTAL TO MARCH</td>
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<td>CONSTRUCTION (3)</td>
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<tr>
<td>TOTALS</td>
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</tr>
</tbody>
</table>

| Authority to Spend required for this Approval | TOTAL TO MARCH | FORECAST |
|                                               | 2017 | £000's | 2017/18 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021 on |
| LAND (1)                                      | 10.0 | 10.0    | 10.0     | 10.0     | 10.0     | 10.0     | 10.0     | 10.0     |
| CONSTRUCTION (3)                              | 400.0| 400.0   | 400.0    | 400.0    | 400.0    | 400.0    | 400.0    | 400.0    |
| FURN & EQPT (5)                               | 0.0  | 0.0     | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| DESIGN FEES (6)                               | 40.0 | 40.0    | 40.0     | 40.0     | 40.0     | 40.0     | 40.0     | 40.0     |
| OTHER COSTS (7)                               | 22.0 | 22.0    | 22.0     | 22.0     | 22.0     | 22.0     | 22.0     | 22.0     |
| TOTALS                                        | 472.0| 0.0     | 472.0    | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |

| Total overall Funding (As per latest Capital Programme) | TOTAL TO MARCH | FORECAST |
|                                                         | 2017 | £000's | 2017/18 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021 on |
| LCC Supported Borrowing                               | 177.0| 177.0   | 177.0    | 177.0    | 177.0    | 177.0    | 177.0    | 177.0    |
| Revenue Contribution                                  | 0.0  | 0.0     | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| Capital Receipt                                       | 0.0  | 0.0     | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| Government Grant                                      | 295.0| 295.0   | 295.0    | 295.0    | 295.0    | 295.0    | 295.0    | 295.0    |
| Any Other Income (Specify)                           | 0.0  | 0.0     | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| Total Funding                                        | 472.0| 0.0     | 472.0    | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |

| Balance / Shortfall = | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

### Revenue Effects

4.4.4 The proposed flood alleviation works will be the responsibility of LCC and will need to be maintained over the anticipated 75 year design life. Post construction there will be a requirement for routine maintenance visits by the Council involving debris and silt clearance and minor repair works. The estimated Present Value (PV) whole life maintenance cost is £24,000.

4.4.5 The maintenance regime will be delivered by Leeds City Council in partnership with landowners.

### Legal Implications, Access to Information and Call In

4.5.1 The proposed works will reduce flood risk in Allerton Bywater. The content of the report is a Key Decision and is subject to Call In.
4.6 Risk Management

4.6.1 There is a low risk of potential overspend due to encountering unforeseen conditions during the construction works. However this risk has been mitigated substantially through the design and survey works already. Any overspend above this would have to be met from the LCC capital budget.

5 Conclusions

5.1 The benefits of the proposed scheme will be a significant reduction in the risk of flooding to 12 residential properties, it will also reduce the flood risk to an additional 28 residential properties in the surrounding area.

5.2 Environment Agency Grant in Aid funding provides an opportunity to obtain significant match funding to the LCC FRM Capital budget to implement the works.

6 Recommendations

6.1 The Executive Board is requested to:

i) approve the implementation of Westfield Flood Alleviation scheme at Westfield, shown in Appendix A on drawing FRM/253271/001 rev B;

ii) give authority to incur expenditure of £472,000 on the Westfield Flood Alleviation scheme, funded by LCC Capital resources £177,000 and Environment Agency grant £295,000; and

iii) agree that the Chief Officer (Highways & Transportation) will be responsible for the delivery of the scheme.

7 Background documents

7.1 None.

8 Appendices

8.1 Appendix A – General Arrangement – Drawing Number: FRM/253271/001 rev B

8.2 Appendix B – Equality Impact Assessment

8.3 Appendix C - Relevant figures and photographs, as referenced in the above report are provided.

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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.