



SHEFFIELD CITY COUNCIL

Report to Cabinet

Report of: Simon Green, Executive Director of Place

Report to: Cabinet

Date: 17 September 2014

Subject: Sheffield Flood and Water Management Capital Investment Programme 2015 to 2021

Author of Report: James Fletcher, Regeneration and Development Services - 35847

Summary:

It is seven years since Sheffield experienced devastating river flooding. Since then the City has experienced smaller floods and narrowly avoided main river flooding in July 2012.

Recent studies predict that over the next 50 years around 6,000 households, 2,000 commercial properties and key transport routes within Sheffield will be at risk of flooding as the effects of climate change take hold. This potential impact represents an economic cost to the City of around £1 billion as well as the terrible effects flooding has on residents.

The City Council is determined to improve Sheffield's resilience to flooding by securing much needed investment in the City's critical flood and drainage infrastructure over the next few years.

Following an invitation by Government in early 2014, the Council submitted its preliminary capital investment requirements for inclusion in the national Flood Risk Management Grant in Aid programme for the period 2015 - 2021. Those requirements are focused on investment in the following capital schemes that have a preliminary total value of approximately **£55 million**:

1. Lower Don Valley Flood Protection Scheme
2. Sheffield Upper Don Flood Alleviation Scheme (FAS)
3. Sheaf Catchment FAS
4. Upper Blackburn Brook FAS
5. Sheffield Watercourses – Culvert Renewal Programme

6. Three Brooks Environmental Scheme, Manor, Sheffield

The Environment Agency has recently confirmed that Sheffield's capital investment proposals have now been provisionally accepted for inclusion within Government's national Flood Risk Management Grant in Aid programme. This decision is due to be confirmed in November 2014.

Reasons for Recommendations:

To secure much needed capital investment in the City's critical flood and drainage infrastructure.

Recommendations:

1. To approve the inclusion of Sheffield's capital investment proposals in the Government's Flood Risk Management Grant in Aid programme (2015-2021) as outlined in section 4 of this report.
2. To authorise Council officers to open discussions with potential partner investors in the proposed capital programme of schemes and to clarify lead officer/capacity in the area of funds management.
3. To authorise officers to compile the necessary business cases to support the grant applications and seek approval from the appropriate Outcome Programme Boards.
4. To delegate authority to the Executive Director of Place in conjunction with the Interim Director of Legal Services, the Interim Director of Finance and the Interim Director of Commercial Services (or their nominated representatives), subject to revenue funding being made available as outlined in section 6.7 of this report, to accept tenders and award contracts for the preparation of detailed business cases necessary to support submissions to the Environment Agency to secure Government flood grant in aid funds.

Background Papers:

Category of Report: OPEN

If Closed add – 'Not for publication because it contains exempt information under Paragraph... of Schedule 12A of the Local Government Act 1972 (as amended).'

Statutory and Council Policy Checklist

Financial Implications
YES Cleared by: Paul Schofield, Assistant Director of Finance
Legal Implications
YES Cleared by; Nadine Wynter, Legal Services Manager
Equality of Opportunity Implications
YES Cleared by : Ian Oldershaw, Place EIA Advisor
Tackling Health Inequalities Implications
NO
Human rights Implications
NO
Environmental and Sustainability implications
YES
Economic impact
YES
Community safety implications
YES
Human resources implications
YES: Cleared by Lynsey Linton, HR Business Partner
Property implications
YES
Area(s) affected
All
Relevant Cabinet Portfolio Leader
Environment, Recycling and Streetscene
Relevant Scrutiny Committee if decision called in
Economic and Environmental Wellbeing
Is the item a matter which is reserved for approval by the City Council?
NO
Press release
YES

**Cabinet Report:
Sheffield Flood and Water Management Capital Investment Programme
2015-2021**

1.0 SUMMARY

- 1.1 It is seven years since Sheffield experienced devastating river flooding. Since then the City has experienced smaller floods and narrowly avoided main river flooding in July 2012.
- 1.2 Recent studies predict that over the next 50 years around 6,000 households, 2,000 commercial properties and key transport routes within Sheffield will be at risk of flooding as the effects of climate change take hold. This potential impact represents an economic cost to the City of around £1 billion as well as the terrible effects flooding has on residents
- 1.3 The City Council is determined to improve Sheffield's resilience to flooding by securing much needed investment in the City's critical flood and drainage infrastructure over the next few years.
- 1.4 Following an invitation by Government in early 2014, the Council submitted its preliminary capital investment requirements for inclusion in the national Flood Risk Management Grant in Aid (FRMGiA) programme for the period 2015 - 2021. Those requirements are focused on investment in the following capital schemes that have a preliminary total value of approximately £55 million:
1. Lower Don Valley Flood Protection Scheme
 2. Sheffield Upper Don Flood Alleviation Scheme (FAS)
 3. Sheaf Catchment FAS
 4. Upper Blackburn Brook FAS
 5. Sheffield Watercourses – Culvert Renewal Programme
 6. Three Brooks Environmental Scheme, Manor, Sheffield
- 1.5 The Environment Agency has recently confirmed that Sheffield's capital investment proposals have now been provisionally accepted for inclusion within Government's national Flood Risk Management Grant in Aid programme. This decision is due to be confirmed in November 2014.

2.0 WHAT DOES THIS MEAN FOR SHEFFIELD PEOPLE

- 2.2 At full completion programmed for 2021, Sheffield's flood and water management capital investment programme will aim to provide a higher standard of protection of up to 1 in 200 years for 6,000 Sheffield households and 2,000 commercial properties. This standard will reduce over the next 50 years due to the effects of climate change, however a minimum acceptable standard of 1:100 years will be maintained.
- 2.3 Where possible, the investment programme will take the opportunity to manage other environmental pressures on the City's critical waterways to create more pleasurable and accessible landscapes.

3.0 OUTCOME AND SUSTAINABILITY

- 3.1 The proposals will provide much needed capital investment in the City's flood and drainage infrastructure over the next 7 years in order to:
- a. Improve protection to households, commercial properties, transport routes and critical infrastructure taking into account the combined impact of climate change and further development.
 - b. Increase the City's capacity to build new homes without increasing the risk of flooding.
 - c. Protect and enhance the environment.
 - d. Contribute to the regeneration of the City's waterways.
- 3.2 The programme is essential to delivering corporate outcomes across the 'Competitive City' and 'A Great Place to Live' programme boards. The Council's approach to managing flood risk supports corporate benefits for the City to be environmentally responsible, resilient to climate change and in promoting economic growth and regeneration. Strategic objectives are also to manage storm water using sustainable processes thereby creating more desirable homes and sustainable communities that are resilient to flooding.
- 3.3 Wider environmental objectives are linked to contributing to the requirements of the Water Framework Directive (2000) to improve water quality and river morphology.

4.0 SHEFFIELD FLOOD AND WATER MANAGEMENT CAPITAL PROGRAMME 2015-2021

- 4.1 The Sheffield Flood Risk Management strategy concludes that the main risk of flooding within the City is due to the overtopping of principal rivers and critical ordinary watercourse culverts during storm conditions. The capital programme has, therefore, been developed to address these key sources of risk.
- 4.2 The programme consists of the following six capital schemes with preliminary present value costs (£million) as shown:
1. Sheffield Lower Don Valley Flood Protection Scheme – £18.5m
 2. Sheaf Catchment Flood Alleviation Scheme - £12.4m
 3. Sheffield Upper Don Flood Alleviation Scheme - £11.9m
 4. Upper Blackburn Brook Flood Alleviation Scheme - £2.0m
 5. Sheffield Watercourses – Culvert Renewal Programme £8.2m
 6. Three Brooks Environmental Scheme, Manor, Sheffield - £2.6m
- 4.3 Apart from the Lower Don Valley scheme which is well advanced in delivery, all other new schemes are at feasibility and planning stage. Please refer to Appendix A for a plan showing the location of benefit areas relating to the new schemes.
- 4.4 **Sheffield Lower Don Valley Flood Protection Scheme**
The scheme is well advanced in design and its delivery was approved by Cabinet and the Environment Agency's National Board late in 2013. Construction is programmed to commence late in 2014. The scheme's benefit area covers the Don Valley from the City Centre to Meadowhall.

- 4.5 **Sheaf Catchment Flood Alleviation Scheme**
The scheme's feasibility and detailed planning started in 2014 and is expected to take 2 years to complete. The benefit area covers the River Sheaf from the City Centre to Millhouses Park and the Porter Brook to Endcliffe Park. The scheme's aims are to protect 1,770 households and 600 commercial properties to a higher standard of 1:200 years by 2020.
- 4.6 **Sheffield Upper Don Flood Alleviation Scheme**
The scheme's feasibility and detailed planning started in 2014 and is expected to take 2 years to complete. The scheme's benefit area covers the Upper Don Valley catchment in Sheffield including the Rivers Loxley, Rivelin and Little Don. The scheme aims to protect 1,320 households and 480 commercial properties to a higher standard of 1:200 years by 2020.
- 4.7 **Upper Blackburn Brook Flood Alleviation Scheme**
Scheme feasibility studies are programmed to commence in 2015. The scheme aims to benefit 233 households in the Chapeltown and Ecclesfield districts of the City.
- 4.8 **Sheffield Watercourses – Culvert Renewal Programme**
The capital programme will aim to address the significant risk of flooding from the City's critical ordinary watercourse culverts built over the last 150 years as the City has developed. The Council has identified 50 critical culvert assets citywide that present a significant risk to 2,000 households and 420 commercial properties. Recent surveys and studies indicate that parts of this critical drainage infrastructure are structurally and hydraulically defective. The likelihood of flooding from these deteriorating assets is predicted to increase over the coming years due to structural failure and an increasing hydraulic burden from new development and climate change.
- 4.9 **Three Brooks Environmental Scheme, Manor, Sheffield**
The scheme will be programmed over the investment period to link with the phased redevelopment of social housing in the Manor and Arbourthorne districts of the City. Proposals are to manage surface water from planned development by natural and sustainable methods delivering flood risk and wider environmental benefits.
- 4.10 Appendix B of this report outlines preliminary levels of Government FDGiA and partnership investment funding for each capital scheme. At this early planning stage, proposals indicate the total amounts of partnership funding required for each scheme and lists potential sources.
- 4.11 In order to meet Government timescales, it is necessary to proceed with the procurement of detailed business cases required to support submissions to the Environment Agency to secure Sheffield's indicative grant allocations for the period 2015 to 2021 amounting to £23 million.
- 4.12 It is proposed that tenders be issued for 3 contracts in October 2014 for the 5 planned capital schemes outlined in this report. Contract details are given in Appendix C of this report.
- 4.13 The total value of the contracts to prepare the business cases is estimated to

be £2million with associated staff costs estimated to be £200,000. The proposed period of the contracts is provisionally scheduled to be from December 2014 to December 2016.

5.0 LEGAL IMPLICATIONS

- 5.1 Under the Flood and Water Management Act 2010, the Council has lead responsibility to manage the risk of local flooding in the City and a legal duty to implement the approved Sheffield FRM strategy. The strategy calls for close partnership working with the Environment Agency to address the risk of flooding across the City. The registration of the capital investment programme with Government demonstrates the Council's commitment to working closely with the EA to meet its statutory FRM duties.
- 5.2 There are no direct legal implications arising from the decision to register the capital programme for future investment as part of Government's 2015-2021 flood defence investment period. The contracts to support the development of full business cases must be procured in compliance with Council Contract Standing Orders and, given their value and the nature of the services to be provided, national/European procurement law. Procurement via the existing Environment Agency WEM and YORconsult frameworks, which were procured in compliance with the Public Contracts Regulations 2006 and are open for use by local authorities, satisfies these requirements. Further legal implications arising from specific capital schemes will be dealt with through the Council's capital approval and reporting process.

6.0 FINANCIAL IMPLICATIONS

- 6.1 As mentioned, the Lower Don Valley Flood Protection Scheme has secured funding and is programmed to start construction late in 2014. The other 5 capital schemes outlined in item 4.2 have a total preliminary value of £37 million. The Council is registering a programme to be funded from £23 million of Government grant and £14 million from other partner investors.
- 6.2 The registering of Sheffield's planned capital schemes on the Government's national grant aid programme for the period 2015 to 2021 does not commit the City Council to accept the £14 million of partnership funding. The registration process will place indicative annual grant allocations against Sheffield's schemes.
- 6.3 The Environment Agency has confirmed that:
- a. Future years' allocations can be adjusted.
 - b. Council expenditure committed in the 2 years prior to the investment period can be counted towards partnership funding.
- 6.4 The actual bid submission for grant funds is expected to take place from the year 2015/16 onwards. The submission will follow the Environment Agency's project appraisal process and will require a form of commitment from partner investors.
- 6.5 The necessary approvals will be sought in accordance with Financial Regulations and the Leader's Scheme of Delegation in respect of accepting

any funds from a third party or assuming the responsibilities of an accountable body. Individual capital schemes will be progressed through the Capital Approval process in line with Finance Regulations.

6.6 The programme will be managed by a planned Flood and Water Management Group to be located within the Highway Maintenance Division of Regeneration and Development Services (RDS) (refer item 7.1). The Capital Delivery Service will provide programme and project management support. At present, the Council receives a grant of £221,000 per year to finance its role as Local Lead Flood Authority (LLFA). Contributions from this grant and existing revenue budgets will fund initial programme management and administration costs estimated to be £159,000 in 2014/15. As the programme develops, staff costs are estimated to rise to £300,000 in 2016/17 and future years' staff costs will be financed by capital funding streams.

6.7 The need for such substantial investment has not previously been identified in the Capital Programme. The feasibility studies, modelling and business case production for the grant bids will be treated as revenue expenditure and funded from a combination of sources as follows:

- £370k is within the Flood Management Section's General Fund budget supported by central government grants;
- £1.23m is being sourced from New Homes Bonus funding stream; and
- £600k is being sourced from Yorkshire Flood Committee levy grants.

7.0 HUMAN RESOURCE IMPLICATIONS

7.1 As mentioned, the capital programme will be managed by a planned expanded Flood and Water Management Group to be located within the Highway Maintenance Division of RDS. The Group will manage the Council's increasing statutory responsibilities in the flood and water management service area including acting as the client/sponsor for the capital programme. As part of the AC/MER process to establish the new Group, officers consulted and reached agreement with representatives from the trade unions to the planned Group structure. The Capital Delivery Service will provide programme management support with the regional Environment Agency acting as programme and project advisers.

8.0 ALTERNATIVE OPTIONS CONSIDERED

8.1 There are 4 alternative options for delivery of the programme:

1. Do nothing.
2. Split programme responsibility between:
 - a. the Environment Agency as main river authority to lead and deliver all principal river projects;
 - b. SCC as LLFA to lead and deliver ordinary watercourse projects.
3. Split the programme and only register some schemes with Government.
4. SCC as LLFA to lead and deliver the full programme supported by the Environment Agency as key programme partner and adviser.

8.2 Option 1 - discounted

Government has indicated that this is a unique opportunity for LLFAs and the Environment Agency to register schemes within a much more stable medium term programme of FDGiA investment to 2021. SCC is determined to maximise this opportunity to invest in Sheffield's critical flood and drainage infrastructure, therefore, the 'do nothing' option is discounted.

8.3 Option 2 - discounted

The capital schemes forming the programme require partnership investment in order for them to achieve the desired priority score using the Environment Agency's prioritisation methodology. SCC is best placed to use its position within the City to mobilise funding partners and to secure alternative sources of funding. This approach has been shown to work by the Lower Don Valley Flood Protection scheme. In addition, the programme is essential to delivering corporate outcomes, as outlined earlier, some of which are not direct functions of the Environment Agency and therefore SCC is able to direct where funding is applied. Clearly, delivery within Government's medium term investment period is in the overall functional interests of SCC and therefore this option is discounted

8.4 Option 3 - discounted

This option would require the Council to decide to put one area above another and thereby increase the risk of flooding in the deselected area. As mentioned earlier this would be a lost opportunity to improve the resilience of significant parts of the City at a time when flood protection is increasing in priority for the Government and funds are being made available. That opportunity may not come again for some time.

8.5 Option 4 - preferred

This is the preferred option to ensure that the City benefits fully from this unique investment opportunity to become more resilient to flooding and the effects of climate change. SCC has begun the process of building expertise and resources in this area with the formation of a Flood and Water Management Group in RDS that will lead delivery of the programme. Plans are for the Capital Delivery Service to provide full time project and funds management support to the programme with the Environment Agency's regional partnership team providing technical, legal and programme management expertise and advice.

9.0 **EQUALITY OF OPPORTUNITY IMPLICATIONS**

9.1 An Equality Impact Assessment has been approved as part of the approvals process for the Sheffield Flood Risk Management Strategy in November 2013 that contained actions to develop a capital programme of schemes.

9.2 In general, the management of flood risk will have a positive effect on all members of the community regardless of age, sex, race, belief, disability and sexual orientation.

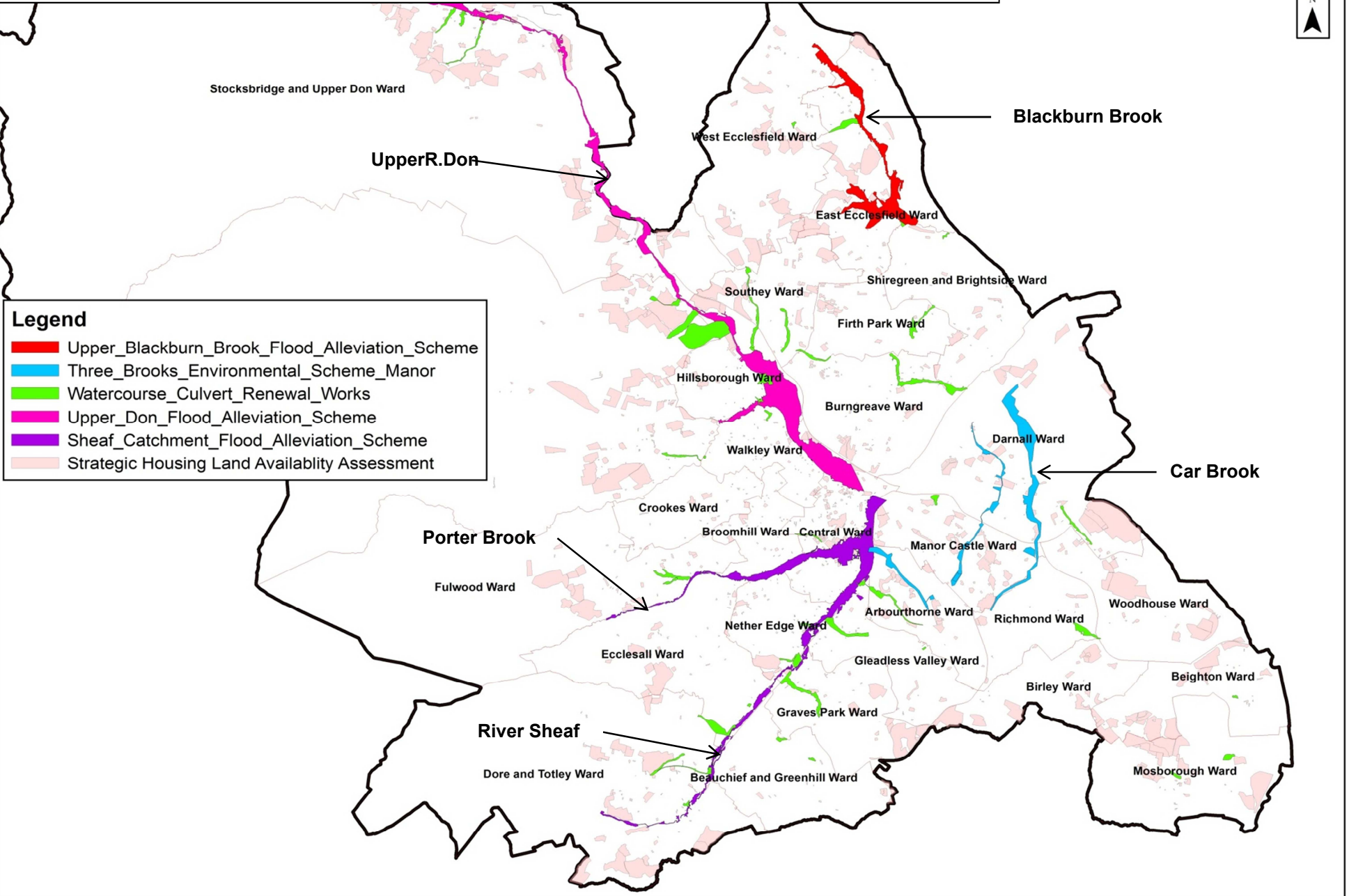
10.0 **REASONS FOR RECOMMENDATIONS**

10.1 To secure much needed capital investment in the City's critical flood and drainage infrastructure.

11.0 RECOMMENDATIONS

- 11.1
1. To approve the inclusion of Sheffield's capital investment proposals in the Government's Flood Risk Management Grant in Aid programme (2015-2021) as outlined in section 4 of this report.
 2. To authorise Council officers to open discussions with potential partner investors in the proposed capital programme of schemes and to clarify lead officer/capacity in the area of funds management.
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Appendix A Sheffield Flood and Water Management Programme 2015-2021 –
Plan of New Schemes



Legend

- Upper_Blackburn_Brook_Flood_Alleviation_Scheme
- Three_Brooks_Environmental_Scheme_Manor
- Watercourse_Culvert_Renewal_Works
- Upper_Don_Flood_Alleviation_Scheme
- Sheaf_Catchment_Flood_Alleviation_Scheme
- Strategic Housing Land Availability Assessment

Appendix B – Proposed Sheffield Flood and Water Management Capital Programme of Schemes (2015-2021)

Scheme		Preliminary Capital Cost £000	Proposed Funding Allocations £000			
			Defra FDGiA	Defra Growth	YRFCC Levy	Partnership Funding (see notes below)
1	Sheffield Lower Don Valley Flood Protection Scheme	18,544	12,446	5,500	98	500
2	Sheaf Catchment Flood Alleviation Scheme	12,350	7,850	0	200	4,300
3	Sheffield Upper Don Flood Alleviation Scheme	11,850	7,150	0	200	4,500
4	Upper Blackburn Brook Flood Alleviation Scheme	2,020	1,200	0	50	770
5	Sheffield Watercourses – Culvert Renewal Programme	8,210	5,900	0	150	2,160
6	Three Brooks Environmental Scheme, Manor, Sheffield	2,520	900	0	100	1,520
Totals		55,494	35,446	5,500	798	13,750

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1. Potential sources of partnership funding identified include Business Improvement Districts (Sheaf and Upper Don valleys), Flexible Development Fund, Local Growth Fund, SCC Corporate Resource Pool, EU Funds, SCRIF, CIL, Developer funds, LTP, LLFA Grant, WFD funds, Yorkshire Water.
2. At this stage, submitted preliminary assessment details indicate the total amounts of partnership funds required but do not provide a breakdown of funds nor identify potential sources of those funds.

Appendix C

Sheffield Flood and Water Management Capital Programme 2015 to 2021

Contract Details for Business Case Development, Survey and Study Phase

Proposals are to issue tenders for 3 contracts covering the 5 proposed capital schemes. Contract details are given below.

Contract 1 : Sheffield Watercourses – Culvert Enhancement Programme

A comprehensive feasibility study and options appraisal covering approximately 50 key watercourse culverts essential to the drainage of the city. This will provide robust survey, hydrology, options appraisal, site and cost/benefit information and data and will culminate in the production of a detailed business case, which can then be submitted to the Environment Agency as a bid for significant funding for the implementation of the project. The scope of the tender shall also include the ability to undertake civil engineering works to improve access for survey purposes and to carry out essential repairs and renewal to remove immediate risks of flooding where this is found to be required. The tender will be structured such that the scope will be delivered in defined phases matched to timescales when funding becomes available. The proposed procurement route is the Environment Agency's WEM framework.

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Contract 2: Sheffield Upper Blackburn Brook Flood Alleviation Scheme and Three Brooks Environmental Scheme, Manor, Sheffield

A comprehensive feasibility study and options appraisal covering the Upper Don and Sheaf catchment within Sheffield.. This will provide robust survey, hydrology, site and cost/benefit information and data and will culminate in the production of a detailed business case, which can then be submitted to the Environment Agency as a bid for significant funding for the implementation of the project. The tender will be structured such that the scope will be delivered in defined phases matched to timescales when funding becomes available. The proposed procurement route is the YORconsult framework.

Contract 3: Sheffield Upper Don and Sheaf Catchment Flood Alleviation Schemes

A comprehensive feasibility study and options appraisal covering the Upper Don and Sheaf catchments within Sheffield. This will provide robust survey, hydrology, options appraisal, site and cost/benefit information and data and will culminate in the production of a detailed business case, which can then be submitted to the Environment Agency as a bid for significant funding for the implementation of the

project. The tender will be structured such that the scope will be delivered in defined phases matched to timescales when funding becomes available. The proposed procurement route is the YORconsult framework.