
Report of: Simon Green, Executive Director for Place Portfolio

Date: Cabinet Meeting 31st October 2012

Subject: Sheffield Lower Don Valley Flood Defence Project

Author of Report: Steve Birch

Summary:

Sheffield City Council has been working with the Environment Agency (EA) and local businesses to develop a flood defence scheme to protect public infrastructure and vital manufacturing and engineering industry from the damages suffered in 2000 and 2007.

Public sector funding is being applied for through ERDF and the EA amounting to about 75% of total costs. A Business Improvement District (BID) is proposed as the mechanism to secure contributions from private sector beneficiaries.

In order to take advantage of the external funding currently available, in particular ERDF, this report seeks authority for officers to pursue the various financial elements of public funding, private sector contributions through a Business Improvement District, and guarantee/cashflow options arranged by the Council.

Reasons for Recommendations:

The preferred way forward for the project is to deliver a comprehensive and holistic approach to flood management in the Sheffield Don Valley area, taking advantage of limited availability of public funds.

A 'do nothing' option for the Council is not viable as it would ignore the new statutory responsibilities placed on it to manage flood risk in the city, and so delivery would depend on the private sector leading and coordinating activity and investment.

A 'reduced scheme' will not provide adequate protection and security to the majority of businesses in the flood zone, leaving many still at significant risk of flood.

The proposed solution of a comprehensive programme of works would meet Environment Agency standards and would thus give existing enterprises confidence to remain in the area and expand, as well as reassuring potential new investors that the LDV is a safe place to locate, which is an objective of the Local Enterprise Partnership.

Recommendations:

That the Director of Development Services, in consultation with the Director of Finance, Director of Legal Services and Cabinet Members for 'Environment, Waste and Streetscene' and 'Business, Skills and Development', be authorised to:

- Negotiate, agree and complete the terms of funding contracts with external grant organisations including (but not limited to) Department for Communities and Local Government (DCLG) and the Environment Agency (EA)
- Negotiate and agree the terms of a Business Improvement District (BID) for the Lower Don Valley Flood Defence Project and implement a ballot process.
- Explore finance options enabling the Council to cashflow the private sector contribution towards the construction phase of the project subject to businesses agreeing to the establishment of a Business Improvement District through which the Council's contribution would be recovered. This includes the possibility of reprioritising internal resources or securing external borrowing as prescribed by the Council's Constitution and Financial Regulations
- Take other action necessary to develop and fund the scheme, including making any decision which is necessary or desirable under the provisions of agreements for external grants. The detailed project approval will be submitted in line with the Council's Capital Approval process once the final funding arrangements become clear.
- Approve in principle the submission of an application for planning permission and other statutory consents for the LDV Flood Defence Project.
- Approve in principle measures to deliver works on privately owned properties or land essential to implement the scheme by enforcement if required, including available powers to gain entry to sites under the Flood and Water Management Act 2010 and Land Drainage Act 1994, or the use of the Council's Compulsory Purchase Order (CPO) Powers to secure access to any parcels of land essential to implement the scheme
- Negotiate, agree and complete the contracts for detailed design and construction following a tender process and once a full funding package is in place

Background Papers:

Category of Report: OPEN

Statutory and Council Policy Checklist

| |
|---|
| Financial Implications |
| YES Cleared by: Paul Schofield |
| Legal Implications |
| YES Cleared by: Deborah Eaton |
| Equality of Opportunity Implications |
| NO Cleared by: Ian Oldershaw |
| 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 |
| Property implications |
| YES |
| Area(s) affected |
| Darnall ward mainly, limited interventions in Central ward |
| Relevant Cabinet Portfolio Leader |
| Jack Scott – Cabinet Member for Environment, Waste and Streetscene Leigh Bramall – Cabinet Member for Business, Skills and Development |
| 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 |
| Issued in partnership with, and led by, Sheffield Chamber of Commerce and Industry – 21/08/2012 |

Sheffield Lower Don Valley Flood Defence Project

1.0 SUMMARY

- 1.1 This report describes the need for flood defence measures in Sheffield's Lower Don Valley (LDV) in order to protect businesses located in the city's industrial heartland and main economic zone outside the city centre, how it delivers the Council's priorities, and the financial measures to fund the works.
- 1.2 Sheffield has recently seen two serious flood events in 2000 and 2007, and again worryingly high river water levels in July 2012. The 2007 event alone caused millions of pounds of damages to local firms, and many have said they would not survive another flood. The greatest concentration of companies at risk is in the Lower Don Valley. The extent of flood risk from a '1 in 100 year flood' is shown on the attached plan in Appendix A.
- 1.3 For the last two years Council officers have been working with the Environment Agency (EA) and a number of key private sector stakeholders including British Land, Forgemasters Royal Mail and E.ON to develop a flood defence scheme for the LDV which will be effective but affordable and can be delivered in order to secure European Regional Development Funds (ERDF) by the end of 2013.
- 1.4 Initial computer modelling to replicate river flows and flood paths has identified protective measures to keep the water in the river banks. Based on this work, an outline defence scheme has been defined comprising a number of discrete interventions between Nursery Street in Sheffield City Centre and Blackburn Brook near the M1 (see attached plan at Appendix B). These interventions include repairing gaps in existing defences, raising walls and reinforcing existing structures. There are currently two scopes of scheme being considered, one costing £10.8m and the other £7.2m, dependent on the extent of the sites and defences included. Further detailed survey and design work will however develop these initial proposals into robust works and costings.
- 1.5 The scheme would achieve a 1 in 100 year flood defence standard (this means protection against the scale of flooding which might be expected to occur once per century or a 1% chance in any year). This exceeds the current standard requirement of 1 in 75 years by the Association of British Insurers (ABI) but would not necessarily by itself deal with a repeat of 2007 which was assessed at between a 1 in 150 and 1 in 200 year event.
- 1.6 The aim is to further enhance this level of protection in two ways: firstly, by creating storage capacity in up-stream 'compensation reservoirs' such as Underbank, owned by Yorkshire Water in order to divert water in times of heavy rain in order to reduce the amount of water that arrives in the valley bottom; secondly, by maintaining recent river channel clearance work to prevent the build-up of silt, trees and detritus which resulted in numerous blockages and raised water levels over defences in 2007. The project will make allowance for maintenance over a five year period. The EA are in agreement with this approach, and the defence works completed at the Wicker and now Nursery Street are an advance part of the strategy.
- 1.7 Detailed survey and design work is now underway, commissioned by the Council and funded by the EA to a value of £310,000. Funding for the delivery of the defences is actively being sought to finance this scheme. A final ERDF Detailed Business Plan is being submitted to the Department for Communities and Local

Government (DCLG) in January 2013 for approximately 50% of project costs, whilst a final Project Appraisal Report (PAR) is being submitted to the Environment Agency in June 2013 for around £3m.

- 1.8 The balance is to be sought from the private sector through the establishment of a Business Improvement District (BID). This would effectively constitute a percentage levy in the region of 2% on the rateable value of businesses located in a defined boundary which will be approximate to the 1 in 100 year flood zone (shown in blue on the map in Appendix A). The BID would need to be voted in through a majority ballot of those businesses within the boundary, and if approved the increased business rate payment would be collected over a five year period.

2.0 WHAT DOES THIS MEAN FOR SHEFFIELD PEOPLE

- 2.1 As set out below, approving this report would help deliver on a number of priorities and outcomes within the Council's corporate plan 'Standing Up For Sheffield 2011-14':
- 2.2 *'Focusing on jobs', 'business friendly' and 'a strong and competitive economy'* – this project will mean that hundreds of businesses in the Lower Don Valley flood zone will benefit from a reduced risk of flood, which could also translate into reduced insurance premiums to reflect this. It will give those businesses greater confidence to progress plans for growth and expansion in the Sheffield LDV, whilst other business owners may be attracted to relocate into the area. The project will also improve job security for Sheffield residents as well as creating new job opportunities with a particular focus on high skill advanced manufacturing and related supplier and service businesses. It will build on the Sheffield City Region Enterprise Zone anchored in the same area.
- 2.3 *'Environmentally responsible city'* – opportunities will be sought to improve the public environment, amenity access, landscaping and natural habitats of the river corridor making use of complementary funding such as the EA's Waterways Framework Directive programme to improve river quality. Works will take in stretches of the 'Five Weirs Walk' between the city centre and Blackburn Brook, enabling enhancements to this valued pedestrian and cycle route which represents a key natural amenity and green travel route.
- 2.4 *'Supporting and protecting communities' and 'safe and secure communities'* – addressing the risk of flooding will contribute to a safer environment for Sheffield's people who, in some cases in the 2007 floods, were forced to abandon their cars; were rescued from the roofs of houses and offices; and in the most drastic cases were killed by strong currents on the City's roads.

3.0 OUTCOME AND SUSTAINABILITY

- 3.1 The intended outcome of this report is to gain authority to:
- Apply for external public grant funding and agree appropriate contracts
 - Manage a ballot process with a view to establishing a Business Improvement District (BID) to generate private sector contributions
 - Put in place finance enabling the Council to cashflow the private sector contribution to the development and construction phase of the project subject to approval at ballot of the establishment of a BID
 - Secure all necessary permissions
 - If necessary use the Council's powers including CPO to gain access to land to

construct the defences.

- 3.2 The project aims to defend businesses against the risk of flood damages to a standard of '1 in 100 year event' in the first instance, with a view to enhancing protection through river channel stewardship and improved up-stream storage in future phases of the project. The LDV defences will deliver the following outcomes:
- A reduction in the extent of the flood plain in Sheffield's Lower Don Valley
 - A reduction in the percentage of businesses in Yorkshire and the Humber that are at risk of flooding
 - Creating an environment in which existing businesses feel secure and have confidence in their location to grow and invest
 - An increase in new inward investment in the area to redevelop previously vacant sites in high flood risk locations for new business and employment
 - A reduction in businesses' insurance premiums related to premises, plant, stock and business continuity
 - An accessible and well maintained river course with an established long term management and maintenance mechanism/vehicle
- 3.3 The survey and design of new structures will also give consideration to the possibility to raise defences further in the future to respond to climate change. In addition, this work will explore environmental mitigation work to identify where defence works may also benefit local river habitats and species.

4.0 MAIN BODY OF THE REPORT

Background and Key Issues

- 4.1 Sheffield's Lower Don Valley is a dense employment area is identified as a priority in Sheffield's City Economic Strategy and the City Centre Masterplan, and defined as the core of the proposed Enterprise Zone for South Yorkshire which aims to attract further investment and development in the area.
- 4.2 Severe flooding of the River Don in 2000 and 2007 caused significant disruption to businesses, services and power, transport and telecommunications infrastructure, as well as multi-million pound damages associated to buildings, fixtures/fittings, stock and lost business activity/trade.
- 4.3 Businesses in the area have for some time raised flood risk as a major concern, notably including Sheffield Forgemasters International who are a vital engineering firm for the city, region and indeed the country as a whole given their unique expertise and capacity, as well as Tata Steel, Firth Rixson, E.ON, Yorkshire Water and Royal Mail. Businesses of this sort are stating that they can not survive a repeat of the floods of 2007, in which case they would go out of business, or be forced to consider relocating from the area to protect their operations.
- 4.4 Similarly, flood defence is a key factor in giving potential new investors confidence in the security of their future plans where sites are identified within an existing flood catchment area. The loss of key businesses and new investment in the Lower Don Valley would have a disastrous effect on the economies of Sheffield city, City Region and the wider Yorkshire region.
- 4.5 Analysis of flooding in 2000 and 2007 demonstrates that water exited the river channel at a number of locations on sites owned by a number of different parties including public bodies, but mainly private businesses. Tackled individually these

vulnerable points will only protect isolated sites or properties, not the full flood zone area. Water will continue to flood through other weak points in the river bank/defence affecting other businesses and infrastructure.

- 4.6 As such, no single agent is in a position to remedy the situation alone. Nor does either the EA or the Council have a statutory obligation to provide defences for private properties. However, the Flood and Water Management Act 2010 does place greater responsibilities on local Councils, as Lead Flood Authorities, to lead on managing flood risk and Sheffield City Council has responded to this.

Proposed Solution

- 4.7 The intention is to design and deliver a comprehensive and holistic flood defence scheme which takes action at locations where river banks and existing defences overtop at '1 in 100 year event' levels in order to protect the 8km long area from Nursery Street to Blackburn Brook – see Appendix A.
- 4.8 A coordinated effort is required, led by the Local Authority, to engage all business and landowners on whose sites weak points have been identified, and to engage the wider business community who may be at risk of flood damage in order to gain commitment to work together to put in place defences.
- 4.9 Interventions include raising or reinforcing walls, re-profiling pedestrian walkways and ramps to raise levels, and re-constructing sluice and flood gates. Further work will continue to exploit opportunities for the use of up-stream reservoir storage to complement and enhance the proposed valley bottom defences, however storage options are not within the scope of this project.
- 4.10 River levels and flows have been modelled along the River Don to develop intelligence on how water flows in and out of the river, applied to different scenarios of flooding levels. A defence scheme has been developed, reviewed and revised. What was originally a £36m project allowing for climate change is now a £10.8m scheme designed to achieve '1 in 100 year event' levels of protection in line with new Environment Agency guidance - Appendix B shows the current outline scope of potential works which is being developed in detail.
- 4.11 A second option is also being considered whereby certain sites may be excluded where this does not have an immediate adverse effect on flood risk in the area. This may include strategic vacant sites where future development may be affected by flood. Initial calculations cost this option at £7.2m.
- 4.12 However survey, design, modelling and costing work will continue into 2013 to refine these options and establish which sites are included and which are not. As such it is still possible that the final total cost for the proposed project is higher, or lower, than these figures. Opportunities to lower costs will always be sought, but the key driver for this project is to achieve a '1 in 100 year event' level of protection for businesses in the LDV.

Costs and Funding

- 4.13 The table below sets out a high level breakdown of costs for the project for both the wider and reduced scope of schemes based on initial outline figures:

4.14

| | £10.8m scheme | £7.2m scheme |
|-----------------------|----------------------|---------------------|
| Survey & design | 0.5m | 0.5m |
| Construction | 10.1m | 6.5m |
| Maintenance (5 years) | 0.26m | 0.25m |

| | | |
|--------------|--------------|-------------|
| Total | 10.8m | 7.2m |
|--------------|--------------|-------------|

- 4.15 The Environment Agency has already approved £310,000 of funding towards up front **survey, feasibility and design** work. This will confirm with much greater certainty the true extent of the interventions required and the final cost of the scheme overall. This immediate phase of the project is already underway and includes topographic, channel and structural condition surveys; utility, archaeology and environmental studies; as well as updated modelling and design work to deliver a planning application for the proposed build works.
- 4.16 The designs will also inform the tender for the **construction** of the various flood defence measures, which will comply with European OJEU guidelines.
- 4.17 An allowance has been made for ongoing **maintenance** which will include a combination of channel clearance, litter collection, as well as inspection and maintenance of the flood structures themselves for a period of five years only. During this time, the Council will work with riparian owners to educate and impress upon them their duty to maintain the sections of river channel that they own and their premises structures, especially where these may be designated as dedicated flood defence structures by the Council under new powers. By establishing a cost-effective regime, it is hoped that businesses themselves will value the benefit and after the five years they will extend the arrangement into the future in order to ensure the '1 in 100 year event' protection is sustained.
- 4.18 The options appraisal at Appendix C demonstrates the many alternative funding sources explored for this scheme. However it is clear that the majority of these are not available due to eligibility, timescale or terms of finance.
- 4.19 Nevertheless, officers are optimistic that the majority of the project costs can be met by public funds. The table below sets out a high level breakdown of the preferred funding strategy for both the wider and reduced scope of schemes:

4.20

| | £10.8m scheme | £7.2m scheme |
|--------------------|----------------------|---------------------|
| ERDF | 5.5m | 3.6m |
| Environment Agency | 3.0m | 3.0m |
| Private Sector | 2.3m | 0.6m |
| Total | 10.8m | 7.2m |

- 4.21 The opportunity to bid for such a large proportion of public funds represents a significant breakthrough for the project, and is indeed a key driver for prioritising the delivery of this scheme.
- 4.22 **ERDF** funding, at the end of this current 2007-13 programme, must be contractually committed by the end of 2013, with works completed by the end of 2014. With ERDF accounting for 50% of the project budget, it is essential that the scheme is successful in attracting this grant. The original outline application for £5.5m ERDF has been approved by the Department of Communities and Local Government (DCLG) to proceed to final Detailed Business Plan stage which is to be submitted at the beginning of 2013. The project has been accepted onto the regional programme by the South Yorkshire Performance Management Board in July 2012. However, there is pressure on the programme relating to fluctuations in the exchange rate value of the euro to the Pound, as well as central government desires to reduce the number of contracted projects in the UK. This means that the competition for ERDF in the region is ever more intense, and the focus on delivering a fully funded flood defence scheme within

the European timeframes is vital.

- 4.23 The **Environment Agency (EA)** have already approved £310,000 in 2012-13 towards survey and design work as described previously, and at their Regional Flood and Coastal Committee meeting in July 2012 approved this project for inclusion for funds on their 2013-14 programme. This is a strong indication of likely support for a final Detailed Business Plan (Project Appraisal Report – PAR) bid which is to be submitted once the study work is complete in mid 2013, particularly as the multi-partner funding strategy is well aligned to DEFRA's new partnership approach to funding projects. Working closely with dedicated project colleagues in the Environment Agency, the final sum applied for will be based on further work to quantify the amount of business damages that would be prevented by the scheme. These economic benefits for companies in the LDV, Sheffield and wider city region will be stressed since EA funding is normally focused on the protection of housing areas.
- 4.24 **Private sector businesses** are the beneficiaries of the flood defence project through reduced risk of damages, and as such it is right that they contribute. The preferred option is to secure this investment by means of a **Business Improvement District (BID)**, and this type of partnership approach is being encouraged by DEFRA as a potential exemplar to be promoted nationwide.
- 4.25 Although not used in Sheffield to date, this is now a well-established mechanism which is backed by legislation and has been used in numerous other core cities. These have mainly addressed issues such as security, street cleaning and environmental measures, and as such Sheffield's proposal is viewed as an exciting and innovative use of the legislation. Key points are:
- 4.26
- The BID applies to a pre-defined zone with a precise boundary
 - The BID is subject to a ballot of businesses in the boundary, requiring a majority in terms of number of firms and total rateable value
 - Businesses pay for an enhanced level of public works or services
 - Funds for the enhanced service/works are raised by a levy on the businesses' rateable value
 - The administration/resource costs can be recouped through the BID income
 - BIDs normally last five years, and can be renewed
 - BIDs are enforceable through legislation if voted in by ballot
- 4.27 To date a number of consultation events have been held to begin to test the business sector appetite for using this type of mechanism to deliver flood defences. Despite some understandable concerns, the outcome has been general support to explore and develop the BID option further. As a result, the national advisory service for Business Improvement Districts, UKBIDs (part of the Association for Town Centre Managers) has been engaged to advise and guide the Council in developing a proposal to present to businesses. The Council has also secured £10,000 from the Environment Agency to finance personnel to support the development and promotion of a successful BID.
- 4.28 Furthermore, Sheffield Chamber of Commerce and Industry is taking a proactive role in working with the Council to develop a business plan for this BID, and will lead communication, engagement and promotion matters as the more high profile partner to demonstrate strong private sector leadership on this project. Particular features of the LDV BID might include:
- 4.29
- Approximately 325 businesses located in the '1 in 100 year event' area with a

total rateable value of at least £7.5m

- A minimum threshold to exclude businesses with smallest rateable values who may be least able to pay
- Potential to incorporate businesses whose access and service routes are disrupted by loss of surrounding road infrastructure (see Appendix D)
- No need to establish a dedicated Limited Company as a vehicle for the BID
- No need for dedicated staff, but instead use of existing Council processes minimising Council resource costs to be recouped through the BID income
- Allowance for the five year maintenance commitment
- Option to renew for future years of inspection, repair and channel clearance

4.30 The programme shows a BID ballot in May-June 2013, subject to coordination with local election dates. Feasibility and business planning work will continue in the meantime to establish viable procedures and develop a robust proposal for businesses and a communications strategy.

Cashflowing Private Sector Contributions for the Construction Phase

4.31 Each element of the project funding package is dependent on the other. However, most importantly, the final ERDF application is to be made as early as possible in 2013 to demonstrate to DCLG that the project timeframes are sufficient to allow the project to be delivered before the end of their programme in 2015. With the application to the Environment Agency (EA) for match funding not due until later in 2013 due to the technical/structural nature of its requirements, it is vital that the Business Improvement District element can be secured in advance in order to give confidence to ERDF appraisers at DCLG.

4.32 It is proposed that the Council cashflows the private sector sum subject to a successful ballot result where businesses vote in favour of setting up a Business Improvement District for the flood project. If businesses vote against the BID, leaving a significant gap in the funding package, there is a real risk that the project will not be able to proceed at all.

4.33 Other sources of finance have been explored in order to reduce or remove the cashflow commitment from the Council. However, as shown in the options appraisal in Appendix C, the project has been unable to attract finance from a number of funds including Joint European Support for Sustainable Investment in City Areas (JESSICA) for eligibility reasons and over-subscription of those programmes, whilst the Council's Community Infrastructure Levy (CIL) will not come into effect in time to support delivery within ERDF timescales. It is for these reasons that it is proposed that the Council cashflows the private sector funding as described to improve the possibilities for setting up the BID.

4.34 If approved, this cashflow facility would relate specifically to the development and construction costs accounted for within the private sector contribution, which could be broken down as below within the total private sector sum for both the larger and smaller scale scheme (based on current calculations which may change as costs are refined further):

4.35

| | £10.8m scheme | £7.2m scheme |
|-----------------------------|----------------------|---------------------|
| Construction | 2.1m | 0.4m |
| Maintenance (5 years) | 0.26m | 0.25m |
| Total Private Sector | 2.3m | 0.6m |

In both the £10.8m and £7.2m schemes there would be a risk that the £190k cash flow would become a loss if the scheme had to be aborted, for example if it did

not raise the funding.

- 4.36 This funding shortfall would be financed by the Council in the three years 2013-14 to 2015-16. It would be recovered through the BID through annual payments by businesses over a five year period between 2013-14 and 2017-18, with an indicative profile outlined below in point 4.37 for the £10.8m scheme extent. As such, the Council would cashflow the early and most significant investment sum for the private sector.

4.37 *£10.8m scheme*

| | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | TOTAL |
|---------------------------|----------|------------|--------------|--------------|-------------|-------------|---------------|
| | £000 | £000 | £000 | £000 | £000 | £000 | £000 |
| Survey & Design | | 500 | 0 | 0 | 0 | 0 | 500 |
| Construction Cost | | 0 | 7,000 | 3,100 | 0 | 0 | 10,100 |
| Maintenance Cost | | 40 | 40 | 40 | 70 | 70 | 260 |
| Total | 0 | 540 | 7,040 | 3,140 | 70 | 70 | 10,860 |
| Funded by | | | | | | | |
| BID | | 40 | 580 | 580 | 580 | 580 | 2,360 |
| ERDF | | 0 | 3,780 | 1,720 | 0 | 0 | 5,500 |
| EA | | 310 | 1,960 | 730 | 0 | 0 | 3,000 |
| Total | 0 | 350 | 6,320 | 3,030 | 580 | 580 | 10,860 |
| Cash flow from SCC | 0 | 190 | 720 | 110 | -510 | -510 | 0 |
| (+ve shows Council input) | | | | | | | |

- 4.38 The table in point 4.39 below however demonstrates that for the £7.2m scheme the exposure is limited to the early part of the project with recovery by 2015/16.

4.39 *£7.2m scheme*

| | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | TOTAL |
|---------------------------|----------|------------|--------------|--------------|-----------|-----------|--------------|
| | £000 | £000 | £000 | £000 | £000 | £000 | £000 |
| Survey & Design | | 500 | 0 | 0 | 0 | 0 | 500 |
| Construction Cost | | 0 | 4,500 | 2,000 | 0 | 0 | 6,500 |
| Maintenance Cost | | 40 | 40 | 40 | 65 | 65 | 250 |
| Total | 0 | 540 | 4,540 | 2,040 | 65 | 65 | 7,250 |
| Funded by | | | | | | | |
| BID | | 40 | 240 | 240 | 65 | 65 | 650 |
| ERDF | | 0 | 2,430 | 1,170 | 0 | 0 | 3,600 |
| EA | | 310 | 1,935 | 755 | 0 | 0 | 3,000 |
| Total | 0 | 350 | 4,605 | 2,165 | 65 | 65 | 7,250 |
| Cash flow from SCC | 0 | 190 | -65 | -125 | 0 | 0 | 0 |
| (+ve shows Council input) | | | | | | | |

- 4.40 In the event of the scheme being costed closer to the £10.8m extent with £2.1m cashflow requirement, options are being explored in terms of whether some

business beneficiaries may be willing to support a proportion of the cashflow requirement. However this is still far from certain and would not account for the whole sum required, so it is still necessary for the Council to consider the principle of cashflowing the full private sector contribution to the construction phase as described.

- 4.41 The sum relating to maintenance would be required for the same five year period between 2013-14 and 2017-18, and would not be cashflowed, but would simply be financed from the Business Improvement District income.

5.0 OTHER IMPLICATIONS

Stakeholder Engagement

- 5.1 For two years Sheffield City Council officers have led a monthly Flood Defence Project Board comprising partners from the Environment Agency and key private sector businesses including British Land, Forgemasters, E.ON, Yorkshire Water and Royal Mail.
- 5.2 Similarly, the Council leads a well-established community led group, the Don Valley Strategy Group, which contributes to infrastructure plans in the LDV. Resident and business delegates are supportive of the flood defence project.
- 5.3 In July 2011, and again in February 2012, the Council arranged stakeholder conferences with Council officers, community representatives and around 40 business delegates from the Lower Don Valley area. Feedback showed that flood protection is one of the top barriers and highest priorities for businesses in the area; it is a priority for the Local Enterprise Partnership; there were no objections to the principle of a Business Improvement District (BID); and there is close alignment between project proposals and DEFRA policy.
- 5.4 In November 2011 and January 2012, the Council held two focus groups with representative business stakeholders to discuss private sector contributions for the flood project. Delegates including the Chamber of Commerce, Tata Steel, Forgemasters, British Land and Yorkshire Water as well as smaller businesses such as Ekspan, Wilbourn Associates and Torres Pumps agreed the BID as the preferred mechanism to be explored in greater detail.

Environmental Implications

- 5.5 There is a potential tension between the function of the Don as a principal drainage channel for the urban area and its other functions as a public amenity, green corridor, wildlife habitat and a setting for regeneration and investment
- 5.6 The Project Team is highly mindful of these tensions and is working closely with partners in the Sheffield Waterway Strategy Group to ensure that these multiple objectives are taken into account in the design, as has been achieved in the new Nursery Street scheme.
- 5.7 The survey and design work currently in progress includes full ecological, archaeological and landscape appraisals to identify improvement opportunities.

Equality of Opportunity Implications

- 5.8 A Flood Defence Scheme will be of universal positive benefit to all local people, regardless of age, sex, race, faith, disability, sexuality, etc. It should be particularly positive for the most vulnerable members of society and also for community cohesion and socio-economic improvement. No negative equality

impacts have been identified.

Human Resources Implications

- 5.9 If a ballot is successful in securing a majority in favour of setting up a Business Improvement District, there may be a resource implication associated with staff required to manage the billing and collection of payments. This would be for the life of the BID, that is to say 5 years. As yet the exact mechanism is not yet certain and therefore neither is the resource required to administer the process. Discussions are underway with the Chamber of Commerce regarding the costs of the ballot process and ongoing management of a BID.

Procurement Implications

- 5.10 The works will be procured in accordance with the Council's policies and processes for procurement and tendering, with particular emphasis on value for money, programme constraints and compliance with external funding requirements. Because of the value of the contract, the process will need to also comply with OJEU European guidelines. This may require tender documentation to be issued in advance of gaining full authority, although of course, not tying the Council to any commitment.

Financial Implications

- 5.11 The current funding position indicates an element to be financed by the private sector. The limited availability of external funding, in particular ERDF, means that there is an urgency to provide a wholly secure financial package for the project, or risk losing the external funding which would account for 75% of project costs. The current instability of the euro currency exchange rate creates additional pressure as it threatens to reduce the total size of the ERDF programme in Pounds, meaning that DCLG may have to exclude some projects in order to avoid over-programming against available budget.
- 5.12 With a final ERDF application being submitted prior to the final Environment Agency application and the Business Improvement District ballot, it is necessary to give confidence to appraisers at the Department of Communities and Local Government to ensure that the project stays in the programme faced with intense competition from other projects in the region.
- 5.13 Other sources of funding have been considered (see Appendix C), as have other ways of delivering the project including a reduced cost option (Appendix E). However, the core driver for this project is to ensure that the Lower Don Valley area is comprehensively protected against the risk of flood, and as such these lesser schemes have been discounted.
- 5.14 As a result, in approving this scheme the Council needs to assume that other resources will be required which the Council may need to provide to cashflow the private sector contribution. Capital receipts are already subscribed so the Revenue Budget is the only remaining source. There is no provision for this within the existing Place budget and would have to be resourced through re-prioritisation of spending plans elsewhere.
- 5.15 The project development costs could increase or decrease if the construction costs vary from the current two options set out in point 4.14, and with this the balance of various funding sources may also vary. Costs must also be accounted for relating to the administration of a BID within the Council. This will involve existing Local Authority processes, but may have an implication in terms of additional resources within those affected departments. These costs are

currently being evaluated, but would be financed through the Business Improvement District income.

- 5.16 The Lower Don Valley contains areas which have been designated as Enterprise Zones. The regulations for Business Improvement Districts and Enterprise Zones (EZ) are being developed and not yet fully understood. It is feasible that some businesses may move from the BID area into the EZ to secure business rate relief and avoid the BID. Thus the revenue which might be raised is still speculative.
- 5.17 There may be additional commuted sums under the PFI Contract if the detailed design identifies that works need to be undertaken to highways assets such as bridges or retaining walls. No provision is included for these at the moment.

Legal Implications

- 5.18 Legal Services advised initially on legal implications, and will continue to be involved:
- 5.19 **Flooding and Water Management Act 2010 responsibilities** – The City Council does not have a statutory duty to defend individual properties against flooding, however, as Lead Local Flood Authority (LLFA) the Council is responsible for the management of flood risk from local sources (ordinary watercourses, surface water and groundwater) and has a role in co-ordinating the work of other flood risk management authorities in its area, including the Environment Agency (EA). The EA is the regulatory authority for the City's main rivers.
- 5.20 **Business Improvement District policies** – Part 4 of the Local Government Act 2003 gives the City Council the power to enable projects specified in Business Improvement District arrangements such as those proposed in this report to be carried out for the benefit of the district or those who live, work or carry on an activity in the district. The City Council also has the power to make financial contributions or take action for the purpose of enabling the project to be carried out. The legal implications will continue to be assessed as the precise nature of a BID proposal is developed to ensure compliance with the Local Government Act 2003 and the associated regulations of 2004. Specific recommendations will be developed in consultation between the Director of Development Services, Director of Finance, Director of Legal Services and Cabinet Members for 'Environment, Waste and Streetscene' and 'Business, Skills and Development.
- 5.21 **Possible CPO if needed for access to private land** – A CPO has legal implications which may be addressed by the Flood and Water Management Act 2010 or Town and Country Planning Act 1990. No problems are seen at this moment given the detail available.

6.0 ALTERNATIVE OPTIONS CONSIDERED

- 6.1 Details of the options considered to achieve '1 in 100 year event' protection are provided in Appendix E, however a brief summary is provided with the recommended approach.
- 6.2 **Do nothing option**
Without a coordinated and comprehensive flood defence strategy, piece-meal and isolated interventions would be implemented by individual private sector business or landowners, at different times and possibly to different standards.

6.3 **Reduced funding option**

With less funding a smaller scheme tackling selected weak points could be led by the Council and attract private contributions from businesses, however this would not achieve the '1 in 100 year event' standard with some weak points remaining and consequently a continued risk of flooding for many businesses.

6.4 **Alternative technology option**

New technologies are being developed which may be feasible components of a flood defence strategy for the Lower Don Valley as alternatives to traditional walls, but will not remedy flood risk for the entire flood zone on their own.

6.5 **Up-stream storage option**

Managing lower water levels in up-stream reservoirs is a vital component of the wider flood defence strategy in Sheffield by reducing the amount of water arriving in the valley bottom, but will not alone prevent flooding in the LDV.

7.0 **REASONS FOR RECOMMENDATIONS**

7.1 The preferred approach is to deliver a comprehensive and holistic approach to flood management taking advantage of limited availability of public funds.

7.2 The 'do nothing' option is not viable as it depends on the private sector leading which, in the current economic climate, would at best deliver a partial yet uncoordinated scheme, and at worst would deliver no defences at all. A 'reduced scheme' similarly will not provide adequate protection and security to the majority of businesses in the flood zone, while the 'alternative technology' and 'up-stream storage' options would be complementary solutions in the right circumstances but would not alone resolve the issue of flood risk in the LDV.

7.3 The proposed solution of a comprehensive programme of works would meet Environment Agency standards and would provide the greatest level of protection to business and employment premises and land in the Don Valley. It would thus give existing and new investors confidence in the area.

7.4 Furthermore, this solution is based on evidence of business enthusiasm which gives confidence that financial commitments may be forthcoming from key private sector stakeholders who have stated a desire for flood defences in the area. It also delivers the highest level of outputs, outcomes and benefits.

7.5 As a comprehensive and holistic solution, this preferred option does require the largest budget and therefore the largest amount of funding. Positive progress has been made in applying for ERDF and Environment Agency (EA) funding which could amount to around 75% of total costs. The aim is to complete detailed funding applications to ERDF and the EA to secure these funds. The majority of the private sector contribution relating to the construction phase would be cashflowed in the short term by Sheffield City Council with a view to retrieving this through the establishment of a Business Improvement District.

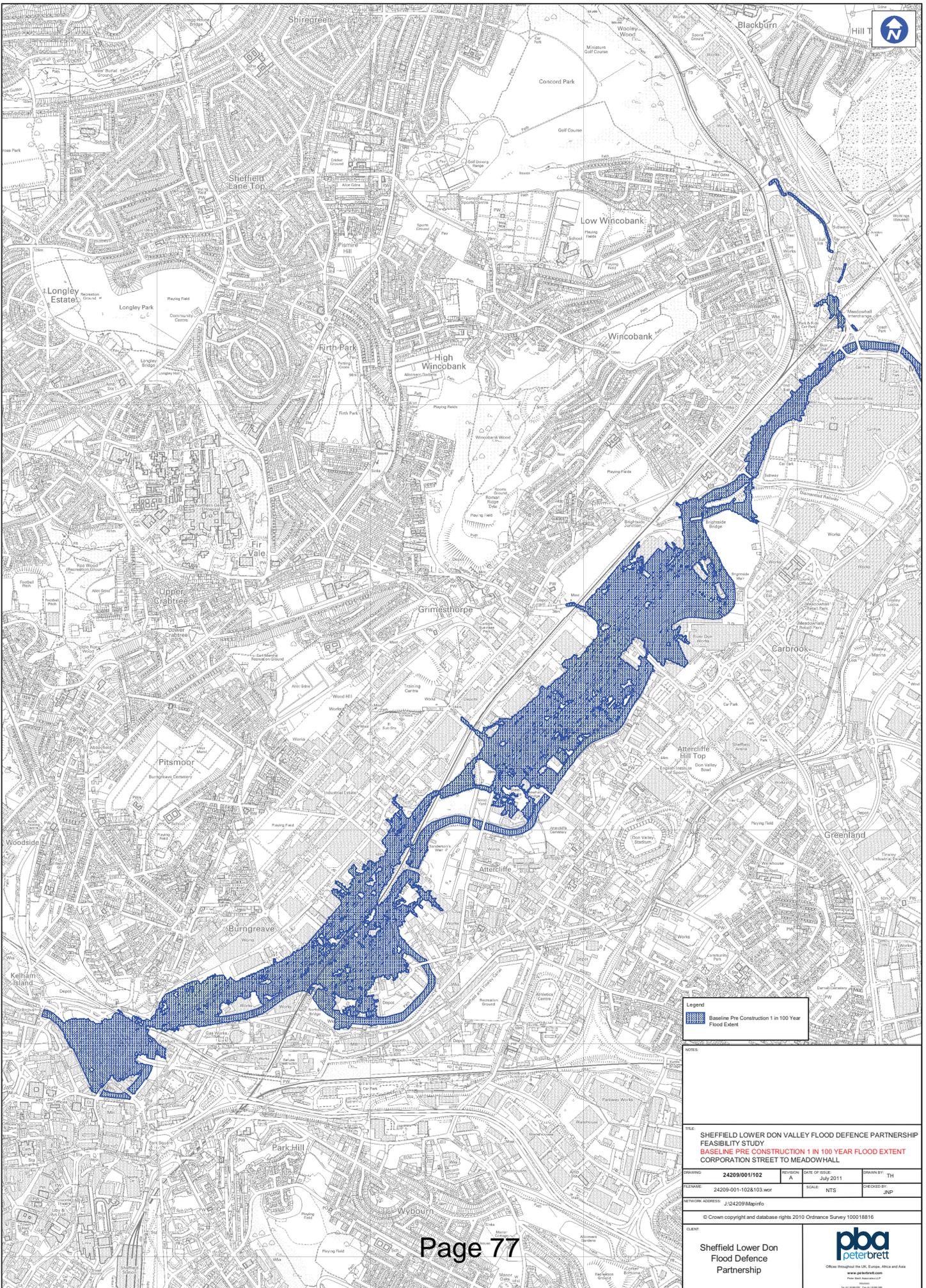
8.0 **RECOMMENDATIONS**

8.1 That the Director of Development Services, in consultation with the Director of Finance, Director of Legal Services and Cabinet Members for 'Environment, Waste and Streetscene' and 'Business, Skills and Development', be authorised to:

- Negotiate, agree and complete the terms of funding contracts with external grant organisations including (but not limited to) Department for Communities and Local Government and the Environment Agency
- Negotiate and agree the terms of a Business Improvement District (BID) for the Lower Don Valley Flood Defence Project and implement a ballot process.
- Explore finance options enabling the Council to cashflow the private sector contribution towards the construction phase of the project subject to businesses agreeing to the establishment of a Business Improvement District through which the Council's contribution would be recovered. This includes the possibility of reprioritising internal resources or securing external borrowing as prescribed by the Council's Constitution and Financial Regulations.
- Take other action necessary to develop and fund the scheme, including making any decision which is necessary or desirable under the provisions of agreements for external grants. The detailed project approval will be submitted in line with the Council's Capital Approval process once the final funding arrangements become clear.
- Approve in principle the submission of an application for planning permission and other statutory consents for the LDV Flood Defence Project.
- Approve in principle measures to deliver works on privately owned properties or land essential to implement the scheme by enforcement if required, including available powers to gain entry to sites under the Flood and Water Management Act 2010 and Land Drainage Act 1994, or the use of the Council's Compulsory Purchase Order (CPO) Powers to secure access to any parcels of land essential to implement the scheme
- Negotiate, agree and complete the contracts for detailed design and construction following a tender process and once a full funding package is in place

9.0 APPENDICES

- 9.1 *Appendix A* Plan of '1 in 100 year flood event' area
Appendix B Plan of 'Proposed defences for 1 in 100 year flood event'
Appendix C Funding Options Appraisal
Appendix D Plan of '1 in 100 year flood event' plus those affected by loss of access
Appendix E Alternative Options Considered – Achieving '1 in 100 year event' protection



Legend
 Baseline Pre Construction 1 in 100 Year Flood Extent

NOTES:

TITLE: SHEFFIELD LOWER DON VALLEY FLOOD DEFENCE PARTNERSHIP FEASIBILITY STUDY
BASELINE PRE CONSTRUCTION 1 IN 100 YEAR FLOOD EXTENT CORPORATION STREET TO MEADOWHALL

DRAWING: 24209/001/102 **REVISION:** A **DATE OF ISSUE:** July 2011 **DRAWN BY:** TH

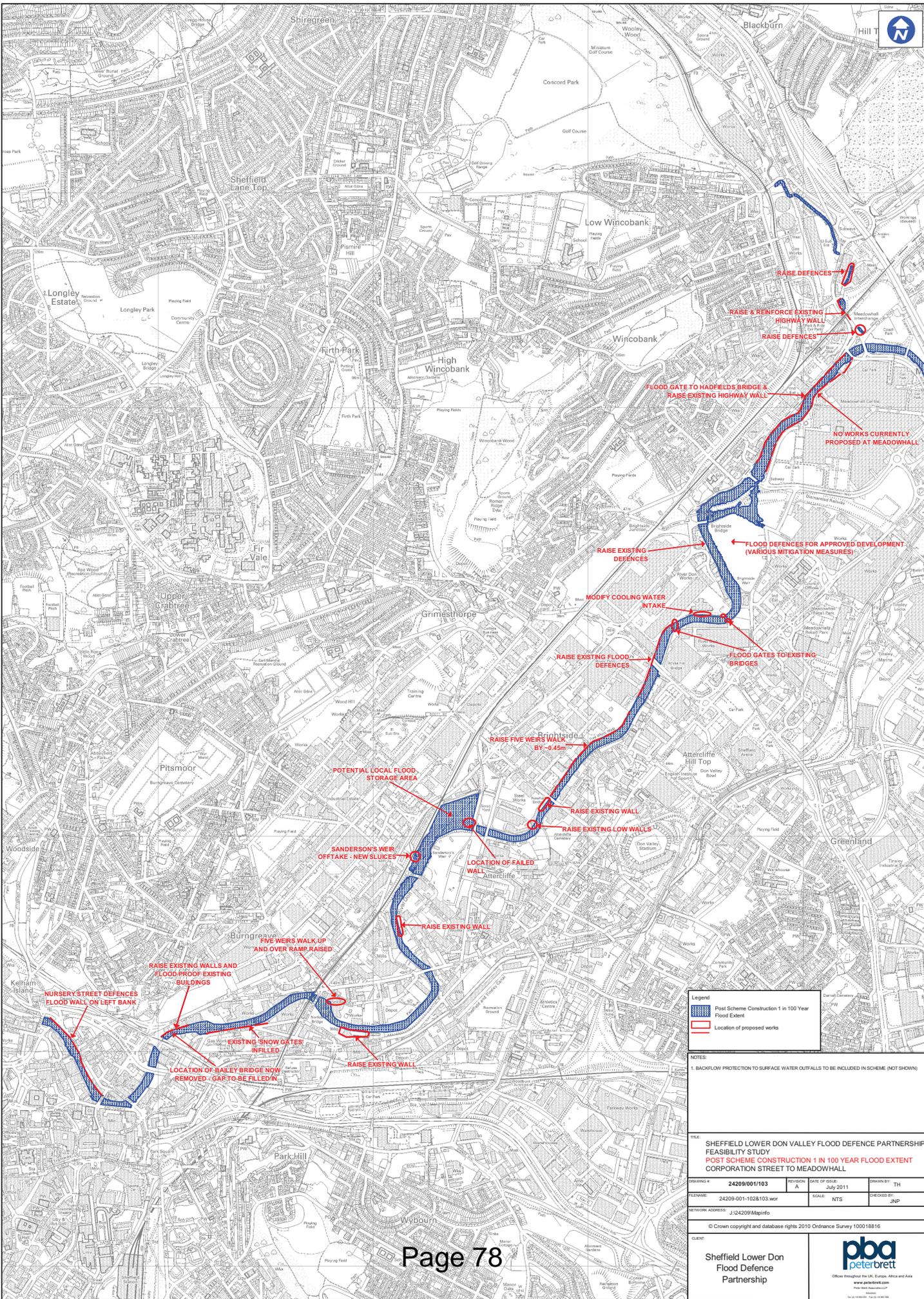
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CLIENT: Sheffield Lower Don Flood Defence Partnership





Legend

Post Scheme Construction 1 in 100 Year Flood Extent
 Location of proposed works

NOTES:

1. BACKFLOW PROTECTION TO SURFACE WATER OUTFALLS TO BE INCLUDED IN SCHEME (NOT SHOWN)

TITLE: SHEFFIELD LOWER DON VALLEY FLOOD DEFENCE PARTNERSHIP FEASIBILITY STUDY
POST SCHEME CONSTRUCTION 1 IN 100 YEAR FLOOD EXTENT CORPORATION STREET TO MEADOWHALL

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CLIENT: Sheffield Lower Don Flood Defence Partnership

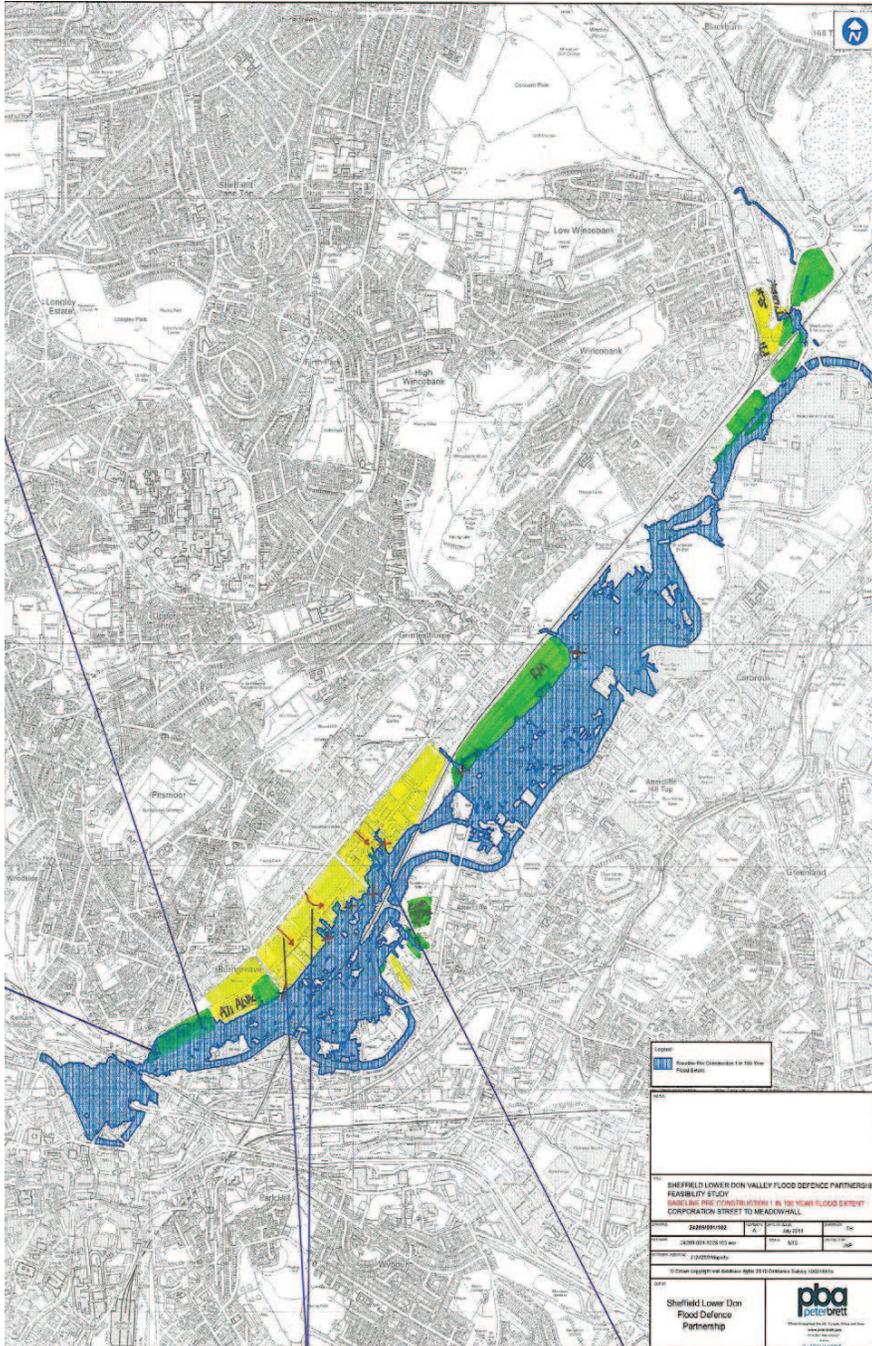
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**Appendix C
Funding Options Appraisal**

| Source | Sum * | Comment | Viable? |
|---|--------------|--|---|
| Business Improvement District | £2.3m | A number of key businesses are positive in respect of the principle of financial support for this project in return for reduced flood risk. Annual costs to the businesses may be considered affordable in consideration of the likelihood of lower insurance costs, confidence for growth, etc. The ballot would effectively test businesses' interest and commitment to a scheme to reduce their own risk of flood – the Council has no statutory duty to defend their premises for them. If approved by a majority at ballot, the BID can be enforced legally, and as such is preferable to individual lengthy negotiations with over 300 potential beneficiaries. Procedurally, advice suggests that this type of BID could be simpler and less costly than the normal form, negating the need for establishing a Limited Company and a staff. Administrative costs and mechanics associated with processing BID payments to be quantified, but not expected to be onerous, and can be covered by BID income receipts. | Strong preference |
| Underwriting by Major Stakeholders | % of £2.1m | Some possibility may exist to share the risk of guaranteeing/cashflowing the development and construction phase of the project. Where stakeholders show strong commitment and willingness to engage with the Council, negotiations may be concluded swiftly in order to facilitate ERDF funding submission to DCLG by early 2013. However, where businesses are more averse to this risk or less willing to engage, this would threaten the timescales of the ERDF programme. As such, this option should be actively pursued to complement the Council's own commitment, not to substitute it. | Possibility to complement SCC commitment |
| Riparian Owners | £0.26 m | SCC has no authority itself, or through the Environment Agency, to enforce upon riparian owners to maintain defences on their land, or in the part of the river that they are responsible for. Costs of construction would not be affordable for riparian owners alone, and as wider businesses benefit from defences and ongoing maintenance, a more inclusive approach is needed. | Possibility for long term maintenance, but lengthy negotiations |
| Infrastructure and Investment Fund | £2.1m | Submitted as part of initial draft list of schemes, the IIF will be managed by SYPTE on behalf of the Local Enterprise Partnership. Further discussions and decisions from September 2012 which will be considered at a City Region level. Timescales for funding being made available to be confirmed. | Possibility, but early stages in establishment of fund, so availability and eligibility uncertain |
| Section 106 | £2.1m | S106 from commercial developments may be used for new infrastructure which might include flood defences. However, with the potential withdrawal of British Land sites which are unlikely to be developed in the near future, there is limited opportunity for new build in the flood zone area which would generate new planning gain income. Furthermore, Tinsley Link Road and BRT North are competing for S106, and | Very unlikely, unless prioritised by SCC |

* Based on larger scale £10.8m scheme - £2.1m towards construction + £0.26m towards maintenance – see point 4.35

| | | | |
|--|---------------------|--|--|
| | | therefore the flood defence scheme is not likely to be prioritised. | |
| CIL | £2.1m and/or £0.26m | Submitted as part of initial draft list of schemes, but does not come into effect until the last year of the project – 2014, and then depends on a) funds being generated by new development and b) this project being a top priority for funds in the city, particularly with Tinsley Link Road and BRT North relying on this source. CIL may be used for maintenance costs of £0.26m after construction completed. | Very unlikely, unless prioritised by SCC |
| JESSICA | £2.1m | Flood projects are not likely to be eligible for JESSICA investment in the foreseeable future. | No |
| Regional Growth Fund | £2.1m | SCC were unsuccessful in one previous bid due to not meeting eligibility criteria – lack of new jobs created outputs. With similar eligibility criteria for a recent new bid round, no application was made, and the programme has already closed, having been over-subscribed with bids. | No |
| Growing Places Fund | £2.1m | Loan, not grant. SCC were unsuccessful in two previous bid rounds for this project due to not meeting eligibility criteria relating to new jobs created outputs. | No |
| Prudential Borrowing | £2.1m | Loan, not grant. This scheme fails to meet a key test of the Prudential Borrowing code – that there is a tangible asset owned by the Council. As a result, the project is not eligible. | No |
| Business Rate Up-lift Retention | £2.1m | There is very limited opportunity for new build in the flood zone area which would generate increased business rates – the key development site owned by British Land potentially may be withdrawn, and the majority of new investment (e.g. Forgemasters) will be on new plant which creates no up-lift. Main beneficiary area will be the Enterprise Zone, which doesn't sit within the flood area. | No |



Appendix E

Alternative Options Considered – Achieving ‘1 in 100 year event’ protection

Do nothing option

This would mean that no coordinated, cohesive and comprehensive flood defence scheme would be delivered. Instead, isolated and disparate interventions would be implemented by individual private sector business or landowners, at different times, possibly to different standards and with no allowance for the resulting impact on other properties and sites along the river bank.

Interventions that are not on privately owned land, for example sluice gates within the river course, will not attract private investment, and so with this type of selective approach the risk of flooding will remain to unprotected sites on the river bank and further back as well as local infrastructure including road, power and communications.

In this form, the project will not hold the same credibility to funding organisations. Crucially, this option would rely on private sector leadership and unfortunately without any public support and a more holistic approach, private businesses will not invest their own limited resources. Consequently, the enthusiasm and commitment to properly tackle flood defence, and a limited opportunity to apply for significant public funds, would be wasted and the opportunity would be missed.

Reduced funding option

With a smaller amount of funding than that being applied for, a reduced scheme could be implemented which addresses selected points of weakness along the river bank, but not all.

This could help lever in other public funds, and signal to businesses that the public sector are willing to lead the project and invest in local infrastructure to protect them against flood. This should then attract further private investment by businesses being motivated to support a scheme from which they would benefit.

However, as with the ‘do nothing’ option above, the greatest level of protection requires all weak points to be addressed, and by scaling down the scheme and omitting certain interventions, the river will still be liable to flood for a ‘1 in 100 year’ event where water levels breach undefended areas and then flow through buildings, sites and road/rail/green infrastructure routes to still have an extended effect of damage to sites away from the river bank.

Alternative technology option

Following the floods of 2000 and 2007 manufacturing businesses in the Don Valley have become frustrated with the lack of protection that they receive and some have started to develop new ideas for flood defence mechanisms which may be deployed in situations such as the LDV.

One particular business presented a concept for an inflatable barrier which is activated in the event of high water levels, and which therefore represents an alternative to reinforced flood walls and banks or raised ground levels.

This type of innovation could form part of the package of interventions, and would have a positive contribution to the existing environment by avoiding permanent man-made structures like walls in the natural river environment. However these would not be suitable for all of the intervention points and at this stage are only available in prototype, therefore the timeframes to develop a tested product would not fit with tight

deadlines for applying for ERDF funding.

Also, mechanical defences which require power, human intervention and moving machinery are not favoured by the Environment Agency as they can too easily fail.

Up-stream storage option

Up-stream storage could entail managing lower water levels in reservoirs so that in cases of heavy rain water flows can be directed to the reservoirs and held there to reduce the amount of water which reaches the Lower Don Valley. Longer term changes to land management through reforestation, farming techniques and sustainable urban drainage systems (SUDS) can all contribute.

High level discussions are being held at an early stage with Yorkshire Water and OFWAT to explore the viability of this approach which has potential to have a significant positive impact.

However this option does not replace the immediate need for down-stream defence measures and will not alone prevent flooding in the LDV. Rather, storage complements flood defences and enhances the effectiveness of management of the up-stream and down-stream water system, potentially enabling the cumulative effect to deliver enhanced protection levels closer to '1 in 100 years plus climate change'.

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