

Summative Assessment of the part ERDF funded Rotherham Renaissance Flood Alleviation Scheme

Project Reference: 28R18S02407



April 2023



European Union
European Regional
Development Fund

Rotherham
Metropolitan
Borough Council



S4W: Stimulating Economic Growth

Tel: 0115 855 9983 Email: info@s4w.org.uk Web: www.s4w.org.uk

Contents

1:	Executive Summary.....	3
2:	Introduction and Project Background.....	6
3:	Strategic Contexts.....	12
4:	Funding and Project Context.....	17
5:	Methodology and Summative Assessment approach.....	19
6:	Project Management and Delivery.....	23
7:	Outputs, Outcomes and Impacts.....	28
8:	Cross Cutting Themes.....	32
9:	Comparator Projects.....	34
10:	Value for Money	36
11:	Conclusions and Lessons Learnt.....	38

Appendix A: Logic Model

Appendix B: Project Location and Scheme phasing

Appendix C: Map of businesses directly affected with reduced flood risk

1 Executive Summary

- 1.1 Every European Regional Development Fund (ERDF) Deed of Grant places a requirement on all recipients to undertake a Summative Assessment. Rotherham Metropolitan Borough Council (RMBC) have commissioned this evaluation and Summative Assessment to review the likely economic, social and environmental outcomes impacts of the Rotherham Renaissance Flood Alleviation Scheme (RRFAS) project.
- 1.2 This Summative Assessment draws upon a range of quantitative and qualitative evidence to understand the long-term impact the programme will have on economic, social and environmental outcomes, whether it met its objectives and how it is performing against its profiled targets. This evidence includes:
 - Key ERDF project documentation
 - A site visit during February 2023
 - Virtual meetings with stakeholders/key project staff and contractors
 - Performance Management Data and submitted ERDF Claims
 - A range of Planning and Engineering reports
- 1.3 The Rotherham Renaissance Flood Alleviation Scheme (RRFAS) is a local infrastructure project to protect commercial and residential properties and key transport routes against fluvial flooding from the River Don as it passes through the centre of Rotherham town centre. This ERDF project is part of a wider Flood Alleviation scheme covering 5km of the River Don from Templeborough, through the town centre, including the confluence of the Don and the Rother, through to Parkgate north east of the town centre.
- 1.4 The project was originally funded to undertake just Phase 2A of the RRFAS, with a total budget of £3,240,710 and an ERDF contribution of £1,620,000. The project was subsequently expanded in July 2021 to also include Phase 2C and the budget was increased to £9,060,000 and the total ERDF contribution to £4,370,000. The project now has an extended completion date of the end of June 2023.
- 1.5 In terms of outputs, the project only had a single output - to reduce the flood risk to **370 commercial properties** (ERDF Output P6 - based on a flood risk assessment using the DEFRA National Receptors Database). The reduction of flood risk will also support the development of the Forge Island regeneration site and will better protect a number of public sector premises including RMBC offices, the Police Station and the Central Station.
- 1.6 The last submitted claim before the Summative Assessment was Claim 16, which covered the quarter to 31st December 2022. At this point the project had spent (defrayed) a total of £6,671,353 against the contracted budget of £9,060,000. This represents a total spend of 73.6% of the budget. Although there is current a relatively large underspend against profile of £1.7m, the Project Team have forecast that the project will defray all of its capital budget.

- 1.7 The project has seen a number of delays, coupled with cost overruns and has subsequently had to increase its project budget and ERDF contribution to cover these rising costs, as well as incorporating Phase 2C. Most of the delays relate to COVID-19, which significantly delayed some of the design and planning phases, whilst there have also been issues with statutory approvals which have all affected the on-site works programme. Only limited progress was able to take place early in the project cycle due to the above disruptions – which invariably has had an impact on the timing of capital spend.
- 1.8 Given the nature of the project, building between the canal bank and rail line, it has not been possible to implement any value engineering measures. Any major changes to the design would mean re-engaging with Network Rail, Canal and River Trust and potentially Northern Power Grid to change current approvals. This has already been a timely and expensive process.
- 1.9 The only ERDF outputs for the RRFAS project has been the protection of commercial properties from flooding. The original estimate was 322 businesses with enhanced protection, with a subsequent additional 48 when the project was expanded. This figure includes businesses both directly and indirectly affected by flooding.
- 1.10 One of the objectives within the ERDF application was to reduce the flood risk to stimulate investment and economic development within the area. The Summative Assessment estimates the 370 properties protected would result in 1,480 jobs safeguarded, which represents 1.5% of all jobs in the Borough.
- 1.11 Based on the latest ONS data, Current Gross Value Added (GVA) per filled job within Rotherham is £44,297¹. On the basis of **1,480 jobs safeguarded**, this project should also protect a total of around **£65m** of sub-regional Gross Value Added per annum. It is also estimated that a total of 133 Full Time Equivalent construction jobs were created over the build cycle of the project.
- 1.12 The project offers good value for money. The project should also protect a total **£65m** of sub-regional Gross Value Added per annum. This suggests a very simplistic return on investment of £7.22 for every £1 invested or £14.44 for every £1 of ERDF invested.
- 1.13 In terms of key lessons learnt from the Rotherham Renaissance Flood Alleviation Scheme, most relate to the timeframes within which the project had to design and deliver and obtain the relevant permissions from partners and landowners to protect wider assets during the build process.

¹ Regional gross value added (balanced) by filled job: Local Authorities by NUTS1 region (2021) ONS

- 1.14 Early and clear dialogue is beneficial for obtaining approvals. Some organisations were able to respond to the timeframes better than others and this had an impact on the delivery of the project overall. Fortunately, RRFAS was able to extend its completion dates, but if this had not been possible the risks for Rotherham MBC would have been considerable.
- 1.15 There were a number positive elements to the delivery of the project, notably the decisions to co-locate the teams on site together which made more effective and quicker decision making and the open and collaborative way that Rotherham MBC worked with its two lead contractors.
- 1.16 Although the project could not commit to delivering outputs that provided improved and protected wildlife habitats as part of its portfolio of ERDF outputs, the team worked within the spirit of the ERDF criteria and included some small investments to make the canal and river bank and footpaths a more hospitable environment for a range of wildlife.
- 1.17 Phase 2A and 2C of the project has been delivered within the parameters of a wider rolling programme of flood defence works along the River Don and Rotherham MBC have engaged their respective teams and consultees in this wider process. Lessons learnt on the delivery of the programme can be directly fed into these future phases.

2 Introduction and Project Background

- 2.1 Every European Regional Development Fund (ERDF) Deed of Grant places a requirement on all recipients to undertake a Summative Assessment. Rotherham Metropolitan Borough Council (RMBC) have commissioned this evaluation and Summative Assessment to review the likely impacts of the Rotherham Renaissance Flood Alleviation Scheme (RRFAS) project. This includes impacts across a range of economic, social and environmental outcomes and impacts within the area prone to flooding within Rotherham town centre. The study also identifies key lessons learned from the project that can be incorporated into future similar works, both locally in Rotherham and across future Government funded programmes.
- 2.2 The Summative Assessment process draws from the project's completed Summative Assessment Plan and its associated Logic Model (explained further within the Methodology section). The Summative Assessment has been co-ordinated by S4W Ltd between January 2023 and April 2023, drawing on a range of project performance data collated by RMBC and interviews with key project staff and local stakeholders. The study also draws from a range of reports created by some of the project's contractors and partners.
- 2.3 This Summative Assessment report provides:
- An evaluation of performance management data and milestones achieved over the period of the project
 - Qualitative reflections of key staff members at RMBC, Pell Frischmann (Design Consultants), Jacksons Civil Engineering (Contractors), BOC Ltd and Network Rail
 - The contribution and impacts of the project to supporting broader social, environmental and regeneration and economic development objectives for Rotherham that were identified at Full Application stage
 - Recommendations and lessons learned for delivery of future projects

About the Rotherham Renaissance Flood Alleviation Scheme

- 2.4 The Rotherham Renaissance Flood Alleviation Scheme (RRFAS) is a local infrastructure project to protect commercial and residential properties and key transport routes against fluvial flooding from the River Don as it passes through the centre of Rotherham town centre. The project also aims to protect and to improve local habitats and biodiversity.
- 2.5 This ERDF project is part of a wider Flood Alleviation scheme covering 5km of the River Don from Templeborough, through the town centre, including the confluence of the Don and the Rother, through to Parkgate north east of the town centre. The scheme will be delivered over a number of years and phases, and the ERDF project relates specifically to scheme 2A. The ERDF investment has helped to bring forward the timeframe for delivering scheme 2A, and then all subsequent phases that follow also.

- 2.6 To date the Templeborough phase (Phase 1) of the scheme was completed in 2008, at a cost of £15 million. Between 2009 and 2011, a further £1.3 million was spent on the Rotherham Town Centre phase.
- 2.7 The initial plans to enhance Rotherham's flood protection date back to major floods in 2000. At this point a comprehensive plan was developed by Rotherham MBC and the Environment Agency, which formed the basis of RRFAS. The RRFAS in its entirety will reduce the risk of flooding to around 400 existing businesses and key nodes of the highway and tram/train networks. This includes the A630, A633, A6123, Rotherham Central station and Parkgate station.
- 2.8 Rotherham has been subject to a number of major flooding events since 2000, including a serious flood in 2007, with the most recent being in November 2019. The 2007 flood affected around 250 businesses and critical infrastructure.
- 2.9 During the 2019 flood, over a month's worth of rain fell within a 24-hour period. This flooding event, caused by fluvial overflow and some surface water flooding, significantly affected the Parkgate area, closing the retail park, flooded parts of the town centre and inundated rail tracks at Rotherham Central railway station, the tram network and the slip lanes of the M18 motorway.
- 2.10 The flood risk to Rotherham has been growing due to climate change, increasing urbanisation and surface water drainage.



2019 Flooding in Rotherham (RMBC)

- 2.11 Phase 2A includes 0.5km of new flood defences starting at Ickles Lock on the Sheffield to Keadby Canal, past the Rotherham United FC stadium to Rotherham Lock/Forge Island, where a new canal barrier will be installed. A detailed list of interventions includes:
- Detailed design works and approvals
 - 0.5km of flood defences including 0.3km of retaining walls and 0.2km of strengthened embankment works
 - Improved access along the tow path (part of the Trans-Pennine Trail)
 - Improvements to small watercourses feeding the Don
 - Watercourse capacity improvement works in the Parkgate area
- 2.12 Two planning applications were submitted for works within Phase 2A. The submission for the works on the Parkgate watercourses was submitted in 2021 and the submission for works along the canal bank and River Don were submitted in April 2021 with an award decision in September 2021. Planning for Phase 2C was already in place when the Project Change Request that brought this phase into the project was approved.
- 2.13 Part of the ERDF scheme included improving urban wildlife habitats along the riverbank and tow path. This included the citing of bat and bird boxes and bug hotels at key points along the riverbank and town path.
- 2.14 The Map at Appendix B shows the location of the different phases of the Flood Alleviation Scheme in relation to Rotherham. Phase 2A is the pink scheme on the map (Ickles Lock to Centenary Way).
- 2.15 The ERDF project had a start date of 1st March 2019, with an initial financial completion date of 1st February 2022 and an initial Practical Completion Date of 28th February 2022. The initial milestones included completing the construction works by November 2021.
- 2.16 The total budget was £3,240,710, with an ERDF contribution of £1,620,000 awarded through Priority Axis 5b of the Sheffield City Region Sustainable Urban Development ERDF allocation. The remainder of the budget (£1,620,050) was funded by the Town Centre Investment Fund of Rotherham MBC. Although South Yorkshire is a Transition region where ERDF can provide up to a maximum 60% intervention rate for projects, the RRFAS took the maximum Priority 5b resources available through the Call for Projects, so has an effective intervention rate of 50%.
- 2.17 Priority Axis 5b focuses on “Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems” as part of a wider priority to promote climate change adaptation, risk prevention and management.

South Yorkshire Sustainable Urban Development Strategy

A total of 10% of the Sheffield City Region ERDF allocation was ringfenced to the South Yorkshire Mayoral Combined Authority for a South Yorkshire Sustainable Urban Development Strategy (SUDS), against which RRFAS drew down funds.

The SUDS placed an emphasis on supporting a step change in sustainable development, including activities to help the economy adapt to climate change. Relevant priorities to the RRFAS include Investment in brownfield site locations to deliver economic development and growth and creating opportunities for economic development through improved flood risk management.

- 2.18 The breakdown of the initial project budget is shown in Table 2.1 below and is split across capital and revenue costs. The budget was revised through a formal Project Change Request submitted in July 2021 which increased the budget. This is explained further in section 2.30.

Table 2.1 RRFAS Original Project Budget

Category	Original Budget	Budget PCR July 2021
Capital		
Building and Construction	£2,747,000	£8,271,177.5
Fees	£284,200	£426,977.11
Other Capital	£90,400	£236,324.14
Sub-Total	£3,121,600	£8,934,478.75
Revenue		
Salaries	£103,000	£109,133.27
Flat Indirect Costs	£15,450	£16,369.98
Sub-total	£118,450	£125,503.25
Total Project Costs	£3,240,050	£9,060,000

- 2.19 In terms of outputs, the project only had a single output - to reduce the flood risk to **322 commercial properties** (ERDF Output P6 - based on a flood risk assessment using the DEFRA National Receptors Database). The reduction of flood risk will also support the development of the Forge Island regeneration site and will better protect a number of public sector premises including RMBC offices, the Police Station and the Central Station.
- 2.20 The ERDF call also sought the delivery of C23 outputs (surface area if habitats supported in order to attain better conservation status) – but this was not included at Full Application stage due to difficulty in both measuring any geographical area and qualifying what any ‘improvement’ might actually be. Despite this, the project has worked to improve habitats on the river/canal corridor.
- 2.21 The proposed wider benefits of the project include protecting key road, rail and utilities infrastructure including Rotherham Central Station and the A633 and A6123.

Partnership and Governance Arrangements

- 2.22 Rotherham MBC have been the accountable body for the ERDF project and for their own match funding that formed part of the financial package. The project has been led by the Drainage Team at the Local Authority who sit in the Regeneration and Environment Department. The project team are led by a Senior Engineer in the Drainage Team.
- 2.23 Within the ERDF project application are two part ERDF funded roles, a part-time Assistant Project Manager and a full-time Information Controls and Records officer. Both of these posts work to the project manager and will claim the time they work on RRFAS through submitting timesheets.
- 2.24 The project team have worked closely with the Environment Agency who, although not a direct partner or funder to the ERDF project, are funding other phase of the wider RRFAS and there is a need to ensure a consistent and planned approach across all phases of the scheme.
- 2.25 There is a wider Project Board that covers planning, implementation and funding of all phases of RRFAS and that has performed the overarching governance function for this scheme. The board includes leadership from RMBC, the Environment Agency and other key Sheffield City Region partners. Other stakeholders are able to join the board at certain key times, but would not have any voting rights.
- 2.26 The Phase 2A section of the programme did not meet the criteria for Flood Defence Grant in Aid investment, largely due to only limited residential properties being protected from flooding which is the focus of the Environment Agency.
- 2.27 Other key partners, landowners and statutory consultees included the Canal and River Trust, Network Rail, Sustrans, the Liberty House Group, BOC Ltd and Northern Power Grid. Initial consultation with these stakeholders indicted a strong desire to see this project taken forward.
- 2.28 The project design consultants (Pell Frischmann Ltd) were procured though a tender on the Yorconsult2 framework agreement in 2021 and Jacksons Civil Engineering Ltd were appointed as the main contractor for the scheme in the same year.
- 2.29 The project team developed a site office off Brinsworth Street, shared by the client team, the design team and the contractors.

Project Change Requests

- 2.30 A first Project Change Request was submitted in July 2021 that increased the scope of the project, and also the budget and outputs. The Project Change Request was to reprofile and increase the overall budget to cover an overspend within the capital programme, driven by design changes through the process of securing permissions from landowners and the impact of COVID-19 and increases in materials and supply chain costs.

- 2.31 The Project Change Request also expanded the scope of the project, bringing in additional construction work on Phase 2C to help the installation of the Canal Barrier. The increase in the budget only covered associated construction works and not the cost of manufacturing the barrier.
- 2.32 The Project Change Request increased the overall project budget from £3,240,000 to £8,560,000 and increased the ERDF contribution from £1,620,000 to £4,120,000.
- 2.33 With the increased budget, the Practical and Financial Completion Dates for the project were extended to the end of December 2022 and the increased scope meant the project could help to protect an additional 46 commercial properties from flooding, increasing the project's P6 outputs from 322 to 370.
- 2.34 The Project Change Request was varied in February 2023, which extended the project's completion date to the end of June 2023 and increased the ERDF funding by 0.25m, matched against 0.25m of funds from Rotherham MBC. This increased the total budget to £9,060,000 and the total ERDF contribution to £4,370,000, The budget breakdown is shown in Table 2.1.

3 Strategic Contexts

History and Local Context

- 3.1 Rotherham is one of four Unitary Local Authorities in South Yorkshire and represents an urban area with a population of 266,183 in 2021 mid-year estimates. The town itself has a population of 109,691.
- 3.2 In recent years the town has been re-orientating its economy towards the growing services and light industrial sectors after the closure of much of the town's heavy industry during the 1980s and 1990s. The Local Authority is keen to promote a vibrant town centre economy as part of economic growth and regeneration priorities.
- 3.3 Rotherham and South Yorkshire has a history of flooding, including a number of significant recent flood events. The first flood protection measures for Rotherham (the first phase of the Rotherham Renaissance Flood Alleviation Scheme) came in the development of a wetland and attenuation area at Centenary Riverside Park in 2009, adjacent to the current Phase 2A flood defence works.

"The River Don runs along the south and east boundaries of the site. The reserve forms a floodplain which is in hydrological continuity with the adjacent River Don (via 3 pipes) and is periodically inundated during times of high river level²."

- 3.4 Since this point there was another major flood in 2019 and then again in February 2022 during Storm Franklin, when the rail line was again inundated.
- 3.5 Constant flooding in Rotherham (and further upstream in the Don Valley) is a major barrier to investment and economic growth, both in terms of existing businesses continuing to invest in their current locations and as a key risks and constraint on developing key sites in the town centre including Forge Island and the Guest and Chrimes former factory site adjacent to the Don.

National Adaptation Programme (July 2018)

- 3.6 The National Adaptation Programme is an overarching document which sets out Government proposals about how the UK must adapt to the multiple consequences of climate change. It covers multiple themes from which flow more detailed strategies of Government departments and related agencies. The Programme recognises that:

"Climate change is likely to increase flood risk in England from the four main types of flooding - fluvial (river), coastal, surface water, and groundwater. Sea level rise and potential changes in storm patterns are likely to increase coastal erosion rates in many areas."³

² Reserve Management Plan: Centenary Riverside (2020) Sheffield and Rotherham Wildlife Trust

³ Defra (2018) The National Adaptation Programme p43

- 3.7 The 2018 National Adaptation Programme is a refresh of the first document, produced in 2013 by the then coalition Government through the Department for Environment, Food and Rural Affairs (Defra). It is due to be refreshed during 2023.
- 3.8 The National Adaptation Programme identifies a need to blend natural and hard flood management approaches to be most effective in preventing recurring flooding:
- “Natural flood management (NFM) approaches and/or working with natural processes can, in the right place, provide opportunities to manage water flow, potentially reducing the risk of flooding to our communities. NFM measures alone will not offer protection to areas of greatest risk or in the face of the most significant flood events. Good integrated flood management will see these incorporated alongside conventional defences⁴.”*
- 3.9 The priorities in relation to flood management have been identified as:
- making sure everyone is able to access the information they need to assess any risk to their lives, livelihoods, health and prosperity posed by flooding and coastal erosion;
 - bring the public, private and third sectors together to work with communities to reduce the risk of harm – particularly in vulnerable areas;
 - make sure that decisions on land use, including development, reflect the level of current and future flood risk;
 - boost the long-term resilience of our homes, businesses and infrastructure;
 - take action to reduce the risk of harm from flooding and coastal erosion including greater use of natural flood management solutions; and
 - include flood risk as a key feature of adaptation reporting from infrastructure reporting organisations.

Planning Considerations

- 3.10 The programme also reiterated that flood risk needs to be considered in National Planning Policy Framework. The planning framework identifies four Flood Zones, Low probability, Medium Probability, High Probability and the Functional Floodplain. It places the requirement on Local Authorities to undertake a Strategic Flood Risk Assessment. Within different zones of flood risk, appropriate ‘sequential tests’ need to be applied for whether development should take place within areas of flood risk.
- 3.11 Within Rotherham’s latest Strategic Flood Risk Assessment (2009) a significant proportion of Rotherham town centre and areas adjacent to the River Don are identified within Zone 3a, with a ‘high’ probability of flooding, with a risk greater than or equal to 1 in 100 years (or a 1%) chance in any given year. The latest posted updates have not recorded any changes.
- 3.12 Clearly this risk is changing and increasing with Climate Change.

⁴ ⁴ Defra (2018) The National Adaptation Programme p32

National Flood & Coastal Erosion Risk Management (FCERM) Strategy for England

- 3.13 The Environment Agency's original National Flood and Coastal Erosion Risk Management Strategy for England was produced in 2011, which was relevant at the time of the development of the project. The strategy sought to promote partnership activity to address local challenges.
- 3.14 The latest iteration was published in July 2020 and sets out practical measures to be implemented by risk management authorities, partners and communities to deliver the Environment Agency's vision of "A nation ready for and resilient to, flooding and coastal change – today, tomorrow and to the year 2100."
- 3.15 The strategy has three core ambitions concerning future risk and investment needs:
- Climate resilient places: working with partners to bolster resilience to flooding and coastal change
 - Today's growth and infrastructure resilient to tomorrow's climate
 - A nation ready to respond and adapt to flooding and coastal change.
- 3.16 The strategy aims to better manage the risks and consequences of flooding from rivers, the seas, groundwater, reservoirs, ordinary water courses, surface water, sewers and coastal erosion - setting out longer term delivery objectives for the nation to pursue over the next 20-30 years alongside shorter term, practical measures to be delivered in partnership.
- 3.17 The strategy suggests that between 2015 and 2021 risk management authorities, working with partners will have invested £2.7bn of Government funding and £600m of partner contributions (90% of which is from public sector budgets) in flood and coastal risk management. This investment will protect some 300,000 homes.
- 3.18 A total of 45% of this expenditure will be focussed upon coastal flood and erosion management, the remainder on inland flood risk management. The Environment Agency suggests that the scale of economic losses resulting from the 2019/20 flooding across England to be around £333m but estimates that the economic damage avoided by the protection provided is at least fourteen times greater.
- 3.19 The strategy recognises the impact of flooding is not just physical, but there is also an emotional and mental health impact on individuals and communities that suffer from significant flooding.
- 3.20 The Strategy highlights the four key factors to help local places adapt to flood risk and climate change. These are **Place Making** (making land use and design choices) **Protection** (flood defences and managing water flows) **Recover** (getting back to normal quickly and becoming more resilient as a result) and **Respond** (working with communities to forecast, warn and evacuate).

South Yorkshire Catchment Plan

- 3.21 After the 2019 floods across South Yorkshire, the Mayoral Combined Authority prepared the South Yorkshire Catchment Plan: 'Connected by Water', prepared jointly with the four Local Authorities and in consultation with the Environment Agency and Yorkshire Water.
- 3.22 The Action Plan, published in early 2022, aimed to develop a more integrated approach to future flood management, covering all rivers and watercourses in an integrated way. It also draws on a wider set of approaches to managing river and watercourse catchments including utilising Natural Flood Management approaches.
- 3.23 Partners are developing a collaborative Source to Sea nature based solutions project to reduce flooding on the Don. This includes interventions in the Upper Don, Middle Don (covering Rotherham) and Lower Don.

Rotherham Local Flood Risk Management Strategy

- 3.24 Rotherham MBC has a broad level of responsibility and services that can all impact on flood risk and mitigation. Rotherham MBC is the Lead Local Flood Authority, the Land Drainage Authority, the Planning Authority, the Highway Authority and the Emergency Management Authority. The Authority has a duty to prepare a Local Flood Risk Management Strategy.
- 3.25 Rotherham has an active Flood Risk Management Strategy, with the latest iteration released in February 2022 and a previous iteration released in 2014, covering the period when the Rotherham Renaissance Flood Alleviation Scheme was being implemented. The Flood Risk Management Strategy does not cover the risk of flooding from the River Don. As a main river, this is the responsibility of the Environment Agency.
- 3.26 The 2009 Preliminary Flood Risk Assessment for Rotherham highlighted 273 residential properties in Rotherham have been identified at risk from fluvial flooding and 2,321 at risk from surface water flooding.
- 3.27 The Plan identifies the growing risk of all types of flooding due to climate change, including increasing winter rainfall. By the 2050s, winter precipitation is estimated to increase by 12% and peak river flows are likely to increase by 8-14%.

Rotherham Economic Growth Plan 2015-25

- 3.28 The Rotherham Economic Growth Plan will seek to deliver 10,000 net new jobs in the private sector within the Borough over the next 10 years and will seek to create 750 additional new businesses over the next 5 years.
- 3.29 The Growth Plan does not specifically identify the role of flood prevention within economic growth priorities, but it is clear based on the priorities of the Plan that if flooding abatement is not achieved, many of the priorities will not be delivered.

- 3.30 The Town Centre is a high priority for the Borough and creating jobs in and close to the town centre is to be pursued through active regeneration. Most of the key successes of the Rotherham Renaissance programme to date and going forwards, will have been protected by the RRFAS. This includes the football stadium, the Council and Police headquarters and the forthcoming development at the former Tesco site on Forge Island.
- 3.31 Subsequent to preparing the Economic Growth Strategy, Rotherham MBC has been successful with a £19.5m Levelling Up Fund bid to invest in a Riverside Residential Quarter and the Leisure and Culture Quarter (including into Forge Island and the Forge Island Canal Barrier). Levelling Up investment, which also part funds the flood alleviation works, will improve the waterside and unlock investment in key sites in the town centre.

Forge Island

Forge Island is a £47m joint development delivered by Rotherham Metropolitan Borough Council and Muse Developments. The final project will be a major leisure destination for the town including an 8-screen state-of-the-art Arc cinema, a 69 bedroom Travelodge hotel and six restaurants.

Part of the development includes Riverside Gardens, a new public green space that forms a key gateway between Forge Island and the town centre and opens up onto the River Don. The site also hosts the Forge Island Canal Barrier, part of the Rotherham Renaissance Flood Alleviation Scheme.

Work is due for completion in 2024 and the site is now 100% pre-let.

Sheffield City Region ESIF Strategy

- 3.32 The Sheffield City Region European Structural and Investment Funds (ESIF) Strategy is the framework for Sheffield City Region against which EU Structural and Investment Funds are allocated. Sheffield City Region received a total of €203.4m of European Regional Development Fund and European Social Fund investment.
- 3.33 South Yorkshire is one of nine Transition Regions (with GDP per capita between 75% and 90% of the European Union average), although elsewhere in the City Region were More Developed areas. In these Transition areas, European Regional Development Fund can contribute up to 60% of the overall cost of a project, compared to only 50% for a More Developed region.
- 3.34 Flooding has been identified as a current pressure and constraint on development and a major risk to long term economic growth, especially in the sub-regions urban areas. Investment was to be made available to mitigate flood risk and to develop the sub-regions green infrastructure to help with flood alleviation. In line with national process, the ESIF makes a clear link between flood prevention and habitat improvement which in turn saw the links between the outputs in these areas being part of Priority Axis 5.

4 Funding and Project Context

- 4.1 Over recent time, there have been three primary sources of funding with regard to flood and coastal erosion risk management in England. These are:
- Government grants from DEFRA (accessed through the Environment Agency) which has a statutory responsibility for maintaining existing infrastructure relating to 'main rivers' as well as investing in new and improved risk management infrastructure.
 - European Structural and Investment Funds, which is linked to the ambitions contained within respective Local Enterprise Partnership Strategic Economic Plans, and related EU Structural and Investment Funds Strategies
 - Partner investments, which typically have come from other public authorities. This is most commonly Local Authorities, especially those Upper Tier Authorities that are Lead Local Flood Authority.
- 4.2 The majority of flood related funding comes through the Environment Agency which offers largely capital Grant-in-Aid funding towards Flood, Coastal Erosion and Risk Management (FCERM) projects to relevant Risk Management Authorities (including Local Authorities). The grant can also be used to fund related initial studies or the development of a risk management strategy covering several connected areas.
- 4.3 Historically a points-based system for determining which projects to support was always oversubscribed, which meant that only the highest priority schemes were supported. In 2011, the approach was modified to favour a partnership approach to project development, sharing the costs of projects between national and local sources of funding. This means, for the most part, proposals that demonstrate greater benefits than the project cost qualify more effectively for a contribution from the Environment Agency.
- 4.4 The level of funding is determined against the level of benefit delivered to people and property resulting from reduced risk. Additionally, projects within deprived communities, or which deliver environmental or wider economic benefit may attract more grant. The Environment Agency application process involves two key stages. The first involves submission of a project proposal which details:
- How the project will be funded
 - How much grant is required
 - A time frame for spending the grant
 - How many households will benefit
 - Information about the area that will benefit
 - Detail regarding to potential environmental benefits
 - Detail regarding financial benefits resulting.
- 4.5 Most ERDF flood protection projects tend to blend funding from two, three or more sources. Overall the RRFAS has taken advantage of all these sources across its range of phases, but Phase 2A and 2C only feature ERDF investment and Rotherham MBC matched funding (partly via the Levelling Up Fund).

- 4.6 Phases 2A and 2C of the RRFAS will mainly protect business premises and therefore was deemed not to meet the criteria threshold for FDGiA investment – which is prevalent elsewhere on the scheme on other phases.
- 4.7 Rotherham MBC have contributed their matched funding to Phase 2A and 2C from the Town Centre Investment Fund, which partly includes resources from the Local Authority’s successful Levelling Up Fund application to Government.
- 4.8 The ERDF England Operational Programme 2014 -2020 provides the overarching framework for how ERDF monies are invested in England, guided by each Local Enterprise Partnership’s EU Structural and Investment Funds Strategies. The Programme identifies under Priority Axis 5: ‘Promoting Climate Change Adaptations, risk prevention and management’, the need for actions to support flood management and climate change resilience.
- 4.9 The process for securing EU structural funding broadly echoes the Environment Agency process in that it requires submission of an expression of interest which, if approved will require a subsequent more detailed submission. Matched funding is also a requirement.
- 4.10 The main difference is the focus of what is being protected – with the Environment Agency primarily focussing on protecting residential properties and ERDF solely focussed on protecting commercial premises and businesses.

“Flood mitigation measures will support the protection of major employment areas and small and medium sized enterprises and unlock derelict, underused or neglected land on strategically important sites/areas identified as central to realising growth aspirations⁵.”

- 4.11 Extrapolation of monitoring information across all ESIF projects supported shows that as of February 2023 a total of 23 Priority Axis 5 schemes had been supported nationally, committing £52.4m towards a total cumulative expenditure of £124.4m⁶ (an average intervention rate of 42%).
- 4.12 A total of fifteen projects supported, including RRFAS, can be classified as predominately fluvial flooding protection projects. Across these the ERDF grant committed totals £39.8m towards a total cumulative expenditure of £95.2m, at an average intervention rate of 42%.

⁵ Call for Proposals European Regional Development Fund Priority Axis 5: Promoting climate change adaptation, risk prevention and management (2016)

⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1135193/ESIF_List_of_Beneficiaries_Jan_2023.csv/preview - accessed March 2023

5 Methodology and Summative Assessment approach

“...Summative Assessments are intended to provide insights into project performance to enhance their implementation, reliable evidence of their efficiency, effectiveness and value for money, as well as insights into what and why interventions work (or not) and lessons for the future.”⁷

5.1 This Summative Assessment report is the cumulation of an ongoing process that began early in the project delivery cycle to understand the impacts and lessons learnt from the Rotherham Renaissance Flood Alleviation Scheme and how the findings can be applied to flood and coastal protection projects and wider regeneration activity in Rotherham and beyond. The process has drawn heavily from the ERDF Summative Assessment Guidance, assessing the following key components:

- The continued relevance and consistency of the project;
- The progress of the project against contractual targets;
- The experience of delivering and managing the project;
- The economic and wider impacts attributable to the project; and
- The cost-effectiveness of the project and hence its value for money.

5.2 The Summative Assessment process is based around three phases, which are:

Stage 1 - Summative Assessment planning including the completion of a logic model and the summative assessment plan using templates provided by the managing authority. This process has been completed.

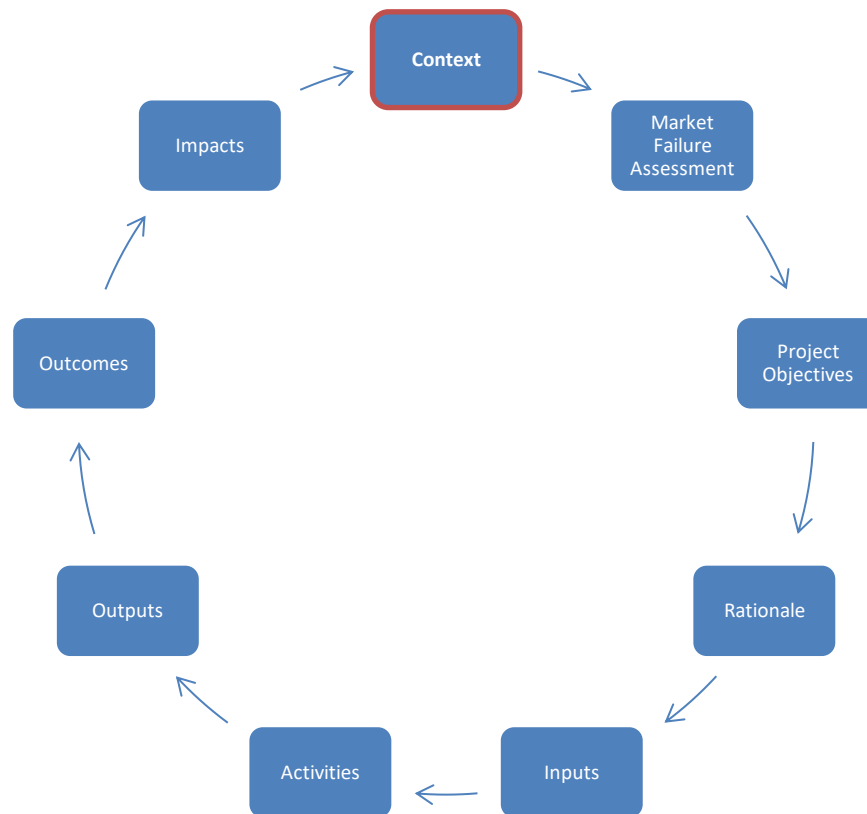
Stage 2 – Data collection and reporting on the ERDF programme’s monitoring requirements and to support the final Summative Assessment. This process is ongoing until the practical completion date.

Stage 3 - The completion of the Summative Assessment and its summary template provided by the Managing Authority.

⁷ Summative Assessment Guidance (July 2020) MHCLG page 3

- 5.3 The Summative Assessment process draws from an underpinning logic model, which encourages projects to consider in project design, delivery and implementation how activity within the project can be measured and what type of outcomes and impacts the project will deliver.

Diagram 5.1 Summative Assessment Logic Model



Source: MHCLG – Summative Assessment Logic Model

- 5.4 Diagram 5.1 identifies the ‘theory of change’ driven logic model for the project development, delivery and final Summative Assessment process. The Logic Model involves understanding the context within which the Rotherham Renaissance Flood Alleviation Scheme will operate and the market failure(s) it will try and address. From these contexts, a set of objectives have been set for the Summative Assessment to identify how planning and implementation are clearly linked to achieving a set of outputs, outcomes and impacts.
- 5.5 The logic model is a key mechanism for ensuring learning and feedback is constantly incorporated into the delivery of the programme, how it effectively engages and supports beneficiaries, the quality of services it delivers and how it measures impact.

- 5.6 The logic model identifies the market failure the project aims to overcome and the intervention logic for how the prescribed actions will tackle this challenge. Within the Logic Model, the market failures the project aimed to address were overcoming a funding gap for investment in flood defences that in turn will protect parts of Rotherham town centre and the Parkgate area stimulate investment in major retail, leisure and culture and retail led regeneration schemes in the town centre

Summative Assessment Methodology

- 5.7 This Summative Assessment draws upon a range of quantitative and qualitative evidence to understand the long-term impact the programme will have on the sub-regional economy, whether it met its objectives and how it is performing against its profiled targets. This evidence includes:
- Key ERDF project documentation
 - A site visit during February 2023
 - Virtual meetings with stakeholders/key project staff at Rotherham Metropolitan Borough Council, Jacksons Civil Engineering, Pell Frishchmann, Network Rail and BOC Ltd
 - Performance Management Data and submitted ERDF Claims
 - A range of Planning and Engineering reports
- 5.8 It also considers the project management structures, highlighting key learning points and making recommendations for any future coastal flood or erosion protection projects.
- 5.9 Although many businesses in Rotherham were classified as beneficiaries of the project, they did not directly receive either support or a grant from the project therefore undertaking a sample of interviews or a quantitative survey was deemed an inappropriate engagement tool. Primarily, some businesses may not have known about their present level of Flood Risk and there are no direct short-term or visible benefits that the businesses can comment upon.
- 5.10 The methodology has worked within the parameters of the General Data Protection Regulation and there was no primary data generated through quantitative surveys of businesses or the wider public.

Impact Calculations

- 5.11 One of the key elements of a Summative Assessment process is to understand the range of economic impacts of ERDF investment. The key impact measures for a Summative Assessment are usually increases in Jobs and Gross Value Added as a direct result of the project intervention
- 5.12 Measuring these impacts is a relatively difficult process for the RRFAS project as a) the project largely protects existing economic activity rather than creating direct growth by being linked to a specific development opportunity and b) the businesses that are beneficiaries had little direct knowledge that they would benefit from a project that is about preventing future detrimental events.

- 5.13 As a result of these factors, it is not possible to attribute directly any growth impacts in these areas. This is partly due to there being previous and subsequent phases of the RRFAS. There will however, clearly be some benefits, especially linked to the development of Forge Island and wider development in the town centre.
- 5.14 However, the securing of the long-term future of a number of commercial properties linked to the project outputs brings with it the securing and safeguarding of a number of jobs.
- 5.15 To calculate the likely number of jobs that have been safeguarded, the initial business case for the wider Rotherham Renaissance has been reviewed, which stated a number of properties to be protected and a number of jobs to be safeguarded. This ratio of jobs safeguarded per business has then been applied to the number of premises protection by phases 2A and 2C.

6 Project Management and Delivery

- 6.1 As part of the Summative Assessment process, S4W Ltd undertook a range of virtual interviews between January and April 2023 with a range of key stakeholders involved in the project including staff from relevant departments at Rotherham MBC, Pell Frischmann (Design Consultants), Jacksons Civil Engineering (Contractors), BOC Ltd and Network Rail. A site visit also took place with the RRFAS Programme Manager on 2nd February 2023.
- 6.2 It is clear from stakeholder engagement that the project has been very complex from inception, design, securing funds through to delivery – made more complex a being a component of a much wider flood alleviation programme. There have been a broad range of partners and interests (both external and internal) to maintain both formal and informal relationships with over the duration of the project. This has sometimes tested the capacity of the core project team - especially as COVID-19 further complicated matters.
- 6.3 Partners were clear that the disrupted timescales for the project due to COVID-19 did not help delivery, with more time needed to prepare some of the groundwork for the project in advance, especially in terms of engaging some of the statutory stakeholders and landowner/asset managers. Engagement needed to be face-to-face and often on-site and COVID-19 significantly hampered the ability to do this.
- 6.4 The timeframes of the project meant there was only limited time to undertake key engagement and agree a suitable package of works that protected the third party interests. The project operated under a ‘ticking clock’ which did not always help consultation or considered decision making.
- 6.5 Stakeholders have had a positive view of the RRFAS project and the levels of collaboration have been relatively good between partners and their respective contractors – especially given the timeframes and complexity of the programme. Communication was deemed as very effective between the core project team, but at times a little inconsistent with wider partners.

Project Deployment

- 6.6 The application for ERDF funding was submitted in March 2018, with a project start date of March 2019. The start date pre-dated the COVID-19 pandemic, but it had a significant impact on the delivery of the project.
- 6.7 The main contractor was procured in January 2022 and was Jackson Civil Engineering Limited, who are engaged on other phases of the RRFAS. Jacksons were procured after the pandemic, so when the work commenced, COVID-19 was no longer an operational issue.

- 6.8 Much of the detailed design work was undertaken during the early stages of the pandemic, which made it challenging for engaging with statutory partners and working on site. The planning applications were submitted behind schedule which in turn resulted in further delays.

Stakeholder Engagement and Management

- 6.9 In delivering the work packages, the project had three a number of key partners who had a series of canalside and/or riverside assets to protect. The first was the Canal and River Trust, who had an interest in some of the canal and towpath infrastructure. The relationship from the perspective of Rotherham MBC and the contractors with the Canal and River Trust was a positive one. Both parties worked together to ensure disruption for water users was keep to a minimum.
- 6.10 The Canal and River Trust were a major stakeholder in phase 2C of the RRFAS, which was later incorporated into the project. The centre piece of this phase was the installation of a canal barrier across the entrance to Rotherham Canal, improving some of the canal banking and towpath and improvements to the visitors car park at Rotherham Police Station.



Rotherham Canal Barrier

- 6.11 Work on the canal barrier involved a closure notice for the canal, an active waterway. The project team and contractors had a fixed window to complete the fabrication, manufacture and installation of the barrier between August 2021 and August 2022 to comply with the Canal and River Trust Stoppage notice.

- 6.12 This was a particular achievement as this element of the project was buffeted by wider delays across the scheme and also had to content with a flooding event during the construction process.
- 6.13 Arrangements also had to be made with BOC Ltd to ensure the works did not interfere with or damage an oxygen pipe that was subterranean through a section of the canal tow path and then transited over the canal between Ickles lock and the Brinsworth Street bridge.
- 6.14 As part of the Summative Assessment process, a representative of BOC Ltd was interviewed to obtain their views on communication and due process. Communication was good and the project team were transparent and prepared to incorporate the needs of BOC Ltd.



Flood wall view from Brinsworth Street Bridge, with the BOC Oxygen pipe in view

- 6.15 National Grid Group were also a statutory consultee within the process, both for independent power assets and for those linked with Network Rail. The process of securing permissions from Network Rail was a drawn on process and an area of the project where there are clearly lessons to be learnt across the board.
- 6.16 Delays in securing relevant approvals delayed the project by between 12-18 months, which has been one of the main reasons behind the need for a project extension. The proximity of the rail line to all of the works made it hard to develop any work-around solutions.

- 6.17 There was a high turnover of staff at Network Rail in the Asset Protection team, coupled with exceptionally high workloads. This was not helpful for a time limited project as processes that Rotherham MBC had previously thought were agreed either needed repeating or were interpreted differently.



Work along the Don riverside path and Network Rail track

- 6.18 From Network Rail's perspective, it was felt that engagement was sometimes intermittent and information not always followed up in a timely manner or clear, which contributed to the delays. The proximity to the track and complexity of the works, coupled with the need to protect a rail bridge over the canal meant the process was elongated.

- 6.19 There was a good working relationship on the ground between staff teams, but the delays caused major issues for the RRFAS project. The end result though, has been a satisfactory and workable outcome. The project ended up phasing works so that partial approval from Network Rail could be achieved on less complex areas of the build.
- 6.20 Relationships between Rotherham MBC and the two contractors, Pell Frischmann and Jacksons Civil Engineering were both very positive.
- “Jacksons were a very good contractor and understood the big picture across all of the phases of the programme over a five year time horizon.”*
- 6.21 The co-location of a staff team from the three parties on-site helped to build working relationships and facilitate quick and effective decision making and effective change control procedures. The engagement of the contractor and design teams at an early stage helped to de-risk major components of the work from a delivery perspective such as quick mobilisation, effective resource planning, phasing and supply chain implementation.
- 6.22 Whilst partners felt the project overall had been successful in its implementation, it was a project that would have benefitted from having more lead times at all stages from concept to delivery. Phase 2A responded to a relatively short-term, quick turn around opportunity in the ERDF investment. This meant that, whilst design work was done relatively early, it was outline design work and there were changes that had to be made as the scheme neared construction. This also had an effect on the approvals process.
- 6.23 There is still a financial quarter left to tie up the delivery and claims for the project and Rotherham MBC have acknowledged that there may be some completions and snagging that need to be concluded at a later date and funded directly by the Authority as the works are likely to run close to the completion date.
- 6.24 In terms of the outcomes and impacts of the project, according to the stakeholders that were interviewed, the project will have a considerable benefit on confidence in Rotherham town centre. Rotherham Renaissance Flood Alleviation Scheme has helped to reconnect the River Don into the town centre. The investment in flood protection has also had a positive impact on both public realm and the built environment – making a more attractive and accessible river frontage and creating the pre-conditions for further water front investment including in residential property and the leisure led Forge Island scheme.
- 6.25 In March 2023 the Rotherham Canal Barrier won the prestigious Smeaton Award at the Institution of Civil Engineering Yorkshire and Humber awards ceremony. The project was awarded the honour for being the region’s most celebrated project in the category for projects of £5m and under.

7 Outputs, Outcomes and Impacts

Financial Performance and Outputs

- 7.1 The last submitted claim before the Summative Assessment was Claim 16, which covered the quarter to 31st December 2022. At this point the project had spent (defrayed) a total of £6,671,353 against the contracted budget of £9,060,000. This represents a total spend of 73.6% of the budget.
- 7.2 A detailed breakdown of the capital and revenue budget against contracted expenditure is show in Table 7.1 below. The project had only defrayed 14% of its revenue budget and as this is salary based, it is unlikely to catch up to its proposed profile.

Table 7.1 Actual and Contracted Expenditure – RRFAS Claim 16

Category	Revised Budget	Actual Expenditure	Percentage of budget
Capital			
Building and Construction	£8,271,178	£6,283,360	76%
Fees	£426,977	£112,193	26.3%
Other Capital	£236,342	£183,961	77.8%
Sub-Total	£8,934,497	£6,579,414	73.6%
Salaries	£109,133	£80,731	74%
Flat Indirect Costs	£16,370	£11,208	68.5%
Sub-Total	£125,503	£91,939	73.3%
Totals	9,060,000	£6,671,353	73.6%

- 7.3 It is projected that the forthcoming claim (claim 17 for the quarter from 1st January 2023 to 31st March 2023) will incorporate total expenditure of £682,983.60. This suggests the total project expenditure with one last claim to realise will be £7,319,061. For the project to meet its profiled expenditure, the final quarter's claim will need to be around £1.7m.
- 7.4 The project will likely deliver most of its capital budget envelope, although there is current a relatively large underspend against profile of £1.7m. There are a range of additional costs that will be defrayed in the final quarter – but it is unlikely overall that all of the capital budget will be spent.
- 7.5 The project has seen a number of delays, as previously stated, coupled with cost overruns and has subsequently increased its project budget and ERDF contribution to cover these rising costs. Given the nature of the project, building between the canal bank and rail line, it has not been possible to implement any value engineering measures. Any major changes to the design would mean re-engaging with Network Rail, Canal and River Trust and potentially Northern Power Grid to change current approvals. This has already been a timely and expensive process.

- 7.6 The project has had to balance the implications of cost overruns against continual delays against what is now a fixed deadline. The project costs have been increasing – but they delays have increased the risk of the project over-running. The project team and contractors have had to work hard to balance these two issues toward a satisfactory conclusion.
- 7.7 The revenue budget (which was primarily to cover staff salaries and on-costs) is largely on track to meet its expenditure. It has been estimated for the purposes of the Summative Assessment that the project will hit its spend target as there are still some back-dated salaries to claim.
- 7.8 Some of the challenges the project has faced have been a result of COVID-19, which significantly delayed some of the design and planning phases, whilst there have also been issues with statutory approvals which have all affected the on-site works programme. Only limited progress was able to take place early in the project cycle due to the above disruptions – which invariably has had an impact on the timing of capital spend.
- 7.9 It has been forecast by the project team that the final expenditure will catch up to profile in the final quarter and be in the region of the total budget of £9,060,000. However, this figure is subject to some variation as it depends on final progress made by the contractor team. It is possible there may be a small element of final completions and snagging that ends up being removed from the scope of the ERDF project as it may not fully complete by the end of June.

Output Performance

- 7.10 The only ERDF outputs for the RRFAS project has been the protection of a revised 370 commercial properties from flooding (with a map of target properties identified as Appendix B including the additional properties related to Phase 2C). The definition of the output is shown in detail below.

P6 - The number of business premises that have reduced risk of flooding and/or coastal risks as a result of activity through ERDF. The reduced risk can be direct or indirect to the business premises and evidenced to reflect local circumstances as the impacts of flooding can vary from location to location. Examples of indirect risk include (but are not limited to): an access road is at risk of flooding, which would prevent staff, deliveries etc gaining access to the business premises.

Source: 2014 to 2020 European Growth Programme Output Indicator Definitions Guidance for the European Regional Development Fund for England: Version 6 (2018) MHCLG

- 7.11 In terms of the project's contractual outputs, these are to be reported on completion with the final claim (still to be submitted). For properties that were at risk of flooding, at full application stage these were estimated based on utilising the National Receptors Database (NRD) provided by DEFRA and local knowledge. The same process was followed for the commercial premises related to Phase 2A.

- 7.12 The original estimate was 322 businesses with enhanced protection, with a subsequent additional 48. This figure includes businesses both directly and indirectly affected by flooding – based on a revision of the methodology of classifying P6 outputs issued by DLUHC in 2018. Indirect effects of flooding can include where businesses cannot operate due to flooding of key infrastructure, meaning staff and materials cannot get to these work premises on a regular basis.
- 7.13 The breakdown between properties that should be directly and indirectly protected from flooding is shown in Table 7.2 below.

Table 7.2 Project performance against outputs

Category	Number of Premises		
	Full Application	PCR	Total
Directly Protected from Flooding	152	34	186
Indirectly Protected from Flooding	170	14	184
Total	322	48	370

- 7.14 These outputs includes a number of town centre retail premises, some major and light industrial sites adjacent to the river and canal and sites at Parkgate retail park further downstream. The process of identifying and verifying businesses has largely been completed so these figures are provisional, but should represent the final claimed outputs. It highly likely that the output will be met.
- 7.15 The flood risk also extends to a range of key infrastructure within Rotherham. This includes rail and tram infrastructure including track and stations and associated utilities including electricity transmission and sub-stations. There are a number of local roads that are liable to flooding also.
- 7.16 Flood risk will also protect an unspecified number of residential properties. During the 2019 flood a total of 35 residential properties were inundated in the town centre. These are not eligible to be included as an ERDF output – but the low number of residential properties shows the difficulty in building a business case to the Environment Agency for FDGiA.
- 7.17 As previously stated, there has been no C23 outputs claimed as part of the ERDF project, although as stated there has been a utilisation of small habitat enhancements along the riverbank. Phase 1 of the RRFAS included the creation of the Centenary Park 4.5ha wetland, which is designated a Local Nature Reserve and is under the management of the Sheffield and Rotherham Wildlife Trust.

Table 7.3 Projected and Achieved Expenditure and Outputs

Indicator	Targets		Performance at Time of Evaluation		Projected Performance at Project Closure		Overall Assessment
	Original (m)	Adjusted (m)	No. (m)	% of Target	No.	% of Target	
Revenue Expenditure (£m)	£0.118	£0.125	£0.92	%	0.125	100%	
Capital Expenditure (£m)	£3.121	£8.444	£6.579	%	8.444	100%	
(P6) Business premises with a reduced risk of flooding/coastal erosion	322	370	0	0%	370	100%	

Employment Impacts

- 7.18 One of the objectives within the RRFAS ERDF application was to reduce the flood risk to stimulate investment and economic development within the area. Whilst protection against flooding is no guarantee of future business growth it does create a more stable environment in the short to medium term for existing business to investment, new sites to be brought forward and additional jobs to be created. It is beyond the scope of the Summative Assessment to identify whether this will occur over the next 25 years, but the protection of existing business premises should lead to a number of businesses and ultimately jobs being safeguarded.
- 7.19 In order to identify the likely number of jobs safeguarded by providing enhanced flood protection, the number of potential jobs hosted within the 370 business premises that will have enhanced flood protection needs to be estimated.
- 7.20 Initial work on the Rotherham Renaissance Flood Alleviation Scheme estimated a total of 1,600 jobs would be safeguarded across 400 business premises with a reduced flood risk. If this is then applied to the 370 properties that this phase covers, it would result in 1,480 jobs safeguarded.
- 7.21 According to the 2021 data from the Business Register and Employment Survey (BRES), there are an estimated 100,000 employee jobs within Rotherham, which suggests the project has helped to safeguard 1.5% of all jobs in the Borough.
- 7.22 Based on the latest ONS data, Current Gross Value Added (GVA) per filled job within Rotherham is £44,297⁸. On the basis of **1,480 jobs safeguarded**, this project should also protect a total of around **£65m** of sub-regional Gross Value Added per annum.
- 7.23 On top of this, utilising a methodology devised by the [Scottish Futures Trust](https://www.scottishfuturestrust.org.uk/storage/uploads/constructionjobssupported201920.pdf), which uses data on direct and indirect employment per £1m spend⁹. As the project capital cost are estimated to be around £9m, it is estimated that a total of 133 Full Time Equivalent construction jobs were created over the build cycle of the project.

⁸ Regional gross value added (balanced) by filled job: Local Authorities by NUTS1 region (2021) ONS

⁹ <https://www.scottishfuturestrust.org.uk/storage/uploads/constructionjobssupported201920.pdf>

8 Cross Cutting Themes

- 8.1 The incorporation of Equality and Anti-Discrimination and Sustainable Development in the commissioning, delivery, monitoring and evaluation all ERDF projects is a mandatory requirement. With regards to equalities, each project has to consider gender equality, ensuring access for people with a disability and wider discrimination for those with protected characteristics. The project must also respect the sustainable development principle, including how the project will maximise positive environmental impacts.
- 8.2 Across the project, Rotherham Metropolitan Borough Council and other strategic partners worked within the principles of their own Equality and Diversity and Sustainability/Environmental policies. The process of procuring contractors also followed these principles.

Equality and Diversity

- 8.3 With regards to equality and diversity, within the project's Full Application the main emphasis for Rotherham Metropolitan Borough Council was to ensure the delivery and outcomes of the project did discriminate against any group with protected characteristics and to improve accessibility where this was possible.
- 8.4 An Equalities Impact Assessment was completed before formal delivery of the project, which highlighted that there should be no significant impact on equalities from either a positive or negative aspect.
- 8.5 There have been improved accessibility outcomes from both the RRFAS Phase 2A and 2C elements of the project, especially related to improving access to the riverside walkway and canal towpath and better access onto the riverbank from Ickles Lock.
- 8.6 Rotherham MBC and partners made every effort to keep local communities and riparian users informed of the progress of works and any potential disruption through newsletters, a project website and ongoing engagement with the relevant interest groups including the local Canal Association.

Sustainable Development

- 8.7 The core of project was to protect Rotherham town centre and the Parkgate area from flooding and to adapt to short term risks associated with climate change.
- 8.8 At the submission of the full ERDF application, the project stated it would not be able to meet the criteria of the Call for Projects in relation to C23 outputs to support habitats in order to attain better conservation status). The project did ensure it worked within the principles of the call and did install a range of small habitat enhancements. This include bat and bird boxes and bug hotels (see image below).

Bird nesting box adjacent to the Canal Barrier



- 8.9 The project has made considerable improvements to the riverside path and a section of the Trans Pennine Trail, a long distance cycle and walking trail. It will make the town centre environment much more attractive and accessible
- 8.10 Again, outside the direct scope of the ERDF project, Jacksons Civil Engineering, working with Rotherham MBC, used 450 tonnes of low carbon, cement free concrete in the construction of the Canal Barrier, which resulted in a saving of 44 tonnes of embedded carbon dioxide (CO₂) compared to traditional cement concrete.

9 Comparator Projects

- 9.1 There has been a number of ERDF projects funded under Priority Axis 5 that have focussed on reducing the risk of fluvial flooding. Four specific projects have been used to provide comparisons to the RRFAS project. This is to demonstrate how natural flood management has been incorporated into projects and to demonstrate the wider scope of works outside of the ERDF projects.

Leeds Flood Alleviation Scheme

- 9.2 The scheme has incorporated two individual ERDF projects, the Leeds Flood Alleviation Scheme and Kirkstall Road Corridor Flood Alleviation Scheme (Leeds Flood Alleviation Scheme 2). These two projects received a total of £9m of ERDF investment. The project was a response to a major flood in Kirkstall and Leeds city centre on Boxing Day in 2015, where 2,600 homes and 700 businesses were inundated.
- 9.3 There has been a wider £76m flood alleviation project funded by the Environment Agency and other partners in the broader Aire catchment extending all the way to the source in Malham, North Yorkshire. The project aims to improve the flood protection of 1,048 homes and 474 businesses to a 1 in 200 year flood level of protection.
- 9.4 The projects included a range of engineered solutions including movables weirs and large water attenuation basins. There have also been a number of natural flood management measures including planting 930ha of woodland in the upper catchment to promote biodiversity, carbon reduction and to slow surface water and drainage. The project has worked with a number of environmental charities and landowners including the White Rose Forest.

Project Munio - Derby

- 9.5 Project Munio was developed as a response to flooding on the River Derwent, but also aimed to improve and protect heritage assets and biodiversity in key sites in the city. The project received £4.6m of ERDF investment towards a wider project cost of £9.2m.
- 9.6 The project has included engineering solutions including flood walls and flood barriers. There have also been a number of natural flood management measures including tree management and wildflower meadows installed in Darley Park and a backwash lagoon has been created for fish passage.

St Austell Bay Resilience Regeneration

- 9.7 The St Austell Bay Resilient Regeneration (StARR) utilised a 'whole catchment' approach to flood defences, aiming to deliver a combined total of around 30 hard and natural flood management infrastructure projects to slow water within the Par and St Blazey catchment area.

- 9.8 The ERDF project is part of a wider programme of flood defence improvements in the area, which includes an Environment Agency Flood Defence Grant in Aid project to provide more effective flood defences directly on the Par River and elsewhere in the wider catchment.
- 9.9 The total budget was £13,759,710, with an ERDF contribution of £7,791,030 awarded through Priority Axis 5b of the Cornwall and Isles of Scilly ERDF allocation (at a 56.5% intervention rate). As Cornwall is classified as a Less Developed Area, ERDF can provide up to an 80% intervention rate for projects.
- 9.10 The project aimed to reduce the flood risk to 124 commercial properties and a management plan developed to improve the biodiversity of 30ha at a local SSSI site. The wider benefits of the project include protecting over 500 residential properties along with key road, rail and utilities infrastructure.

10 Value for Money

- 10.1 Ensuring value for money for European Union Structural Funds investment is a key component of the current ESIF programme and of the current Summative Assessment guidance.
- 10.2 The normal process for understanding the value for money of flood defence schemes is via a Benefit:Cost ratio. This is a standard process for projects funded through the Environment Agency. However, no such calculation was completed for the RRFAS project as there was no Environment Agency direct funding in the phase.
- 10.3 The Environment Agency apply an exhaustive process to evaluating potential projects in advance of any offer of Grant-in-Aid funding, including ensuring value for money. The application and appraisal process can take a significant amount of time but ensures that funding is spent in a consistent way across the country, provides best value for money and the greatest benefits for society as a whole. To achieve this the appraisal process has been designed to show how value for money can be maximised through the testing of a range of options against the following criteria:
- Economic viability (cost-benefit ratio)
 - Technical feasibility (engineering difficulty)
 - Environmental impacts
 - Public acceptability.
- 10.4 The cost-benefit ratio (C:BR) is the ratio between the cost of the project against the approximate value of damages if a 'do-nothing' approach was taken. The Environment Agency typically require a C:BR of between 1 in 5 to 1 in 8 to demonstrate that they are getting the most out of public funding.
- 10.5 The Environment Agency Long-term Investment Scenario (LTIS) 2019 considered scenarios for investment in flood and coastal erosion risk management going forward. The report states that across the LTIS 2014 baseline an average benefit to cost ratio of 5 to 1 was achieved¹⁰.
- 10.6 The unit cost for each commercial property protected is expected to be £24,486. The Summative Assessment has forecast the scheme will protect 1,480 jobs for the longer term that can be attributed to the commercial properties that will be protected. Given the total project cost has been estimated at £9,060,000m, this suggests that each job safeguarded will be done at a unit cost of £6,122 – although in reality the scheme only has a partial role in protecting these jobs coupled with all the other phases of RRFAS.

¹⁰ <https://www.gov.uk/government/publications/flood-and-coastal-risk-management-in-england-long-term-investment/long-term-investment-scenarios-ltis-2019>

- 10.7 Based on the latest ONS data, Current Gross Value Added (GVA) per filled job within Rotherham is £44,297¹¹. On the basis of the **1,480 jobs safeguarded**, this project should also protect a total **£65m** of sub-regional Gross Value Added per annum. This suggests a very simplistic return on investment of £7.22 for every £1 invested or £14.44 for every £1 of ERDF invested.
- 10.8 A report by Regeneris Consulting in 2013 on behalf of DCLG, provides a range of anticipated unit costs per output across the 2014-20 ERDF programme. Whilst there is no benchmark cost for jobs safeguarded (as it is not an ERDF output), the median benchmark for a 30 hour a week FTE job created across ERDF projects was £25,700 (at 2013 costs) and the mean cost per job was £71,000. Overall, the project has delivered good value for money.
- 10.9 In terms of some of the comparator projects identified in the previous chapter, it is difficult to make direct comparisons as most projects were part of longer term and wider scoped projects. RRFAS should protect 370 commercial properties for around £9.06m of ERDF investment. The Leeds and Derby schemes will all protect more commercial properties for a lower unit cost – but all of these projects are based on much wider urban flooding areas rather than just a town centre.

¹¹ Regional gross value added (balanced) by filled job: Local Authorities by NUTS1 region (2021) ONS

11 Conclusions and Lessons Learnt

Lessons Learnt

- 11.1 In terms of key lessons learnt from the Rotherham Renaissance Flood Alleviation Scheme, most relate to the timeframes within which the project had to design and deliver and obtain the relevant permissions from partners and landowners to protect wider assets during the build process.
- 11.2 Early and clear dialogue is beneficial for obtaining approvals. Some organisations were able to respond to the timeframes better than others and this had an impact on the delivery of the project overall. Fortunately, RRFAS was able to extend its completion dates, but if this had not been possible the risks for Rotherham MBC would have been considerable.
- 11.3 There were a number positive elements to the delivery of the project, notably the decisions to co-locate the teams on site together which made more effective and quicker decision making and the open and collaborative way that Rotherham MBC worked with its two lead contractors.
- 11.4 Although the project could not commit to delivering outputs that provided improved and protected wildlife habitats as part of its portfolio of ERDF outputs, the team worked within the spirit of the ERDF criteria and included some small investments to make the canal and river bank and footpaths a more hospitable environment for a range of wildlife.
- 11.5 Phase 2A and 2C of the project has been delivered within the parameters of a wider rolling programme of flood defence works along the River Don and Rotherham MBC have engaged their respective teams and consultees in this wider process. Lessons learnt on the delivery of the programme can be directly fed into these future phases.

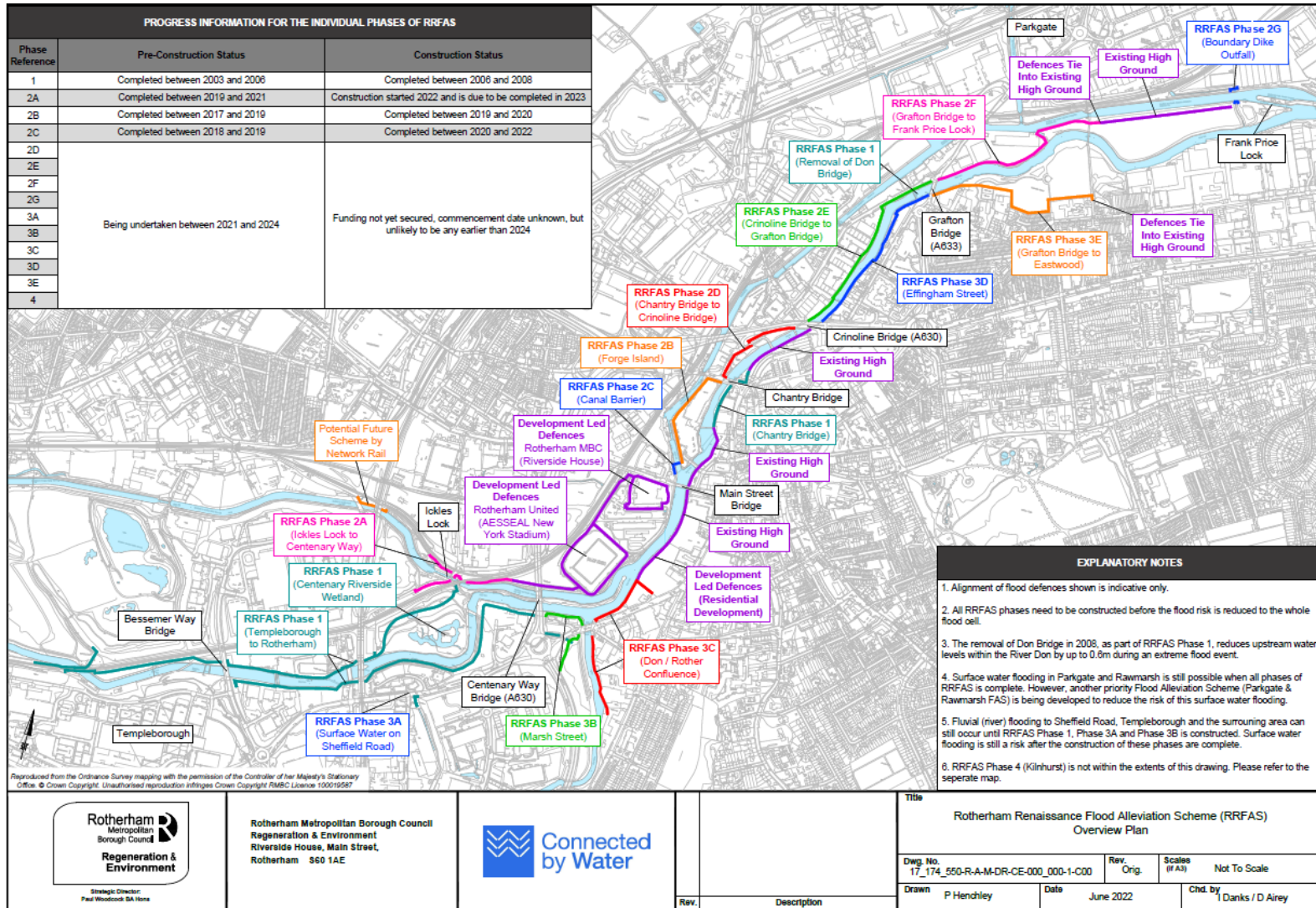
Conclusions

- 11.6 There have been a number of logistical challenges for the Rotherham Renaissance Flood Alleviation Scheme to overcome during its four years of operation. The project is now nearing completion and has successfully delivered everything it stated it would within the Full ERDF Application. Overall the approach has been deemed successful and something to be replicated in other areas of Rotherham and South Yorkshire.
- 11.7 Based on current management information, it is likely that Rotherham MBC will largely commit the project budget, although there may be a small underspend on the revenue budget. Works are likely to continue right up to the revised practical completion date.

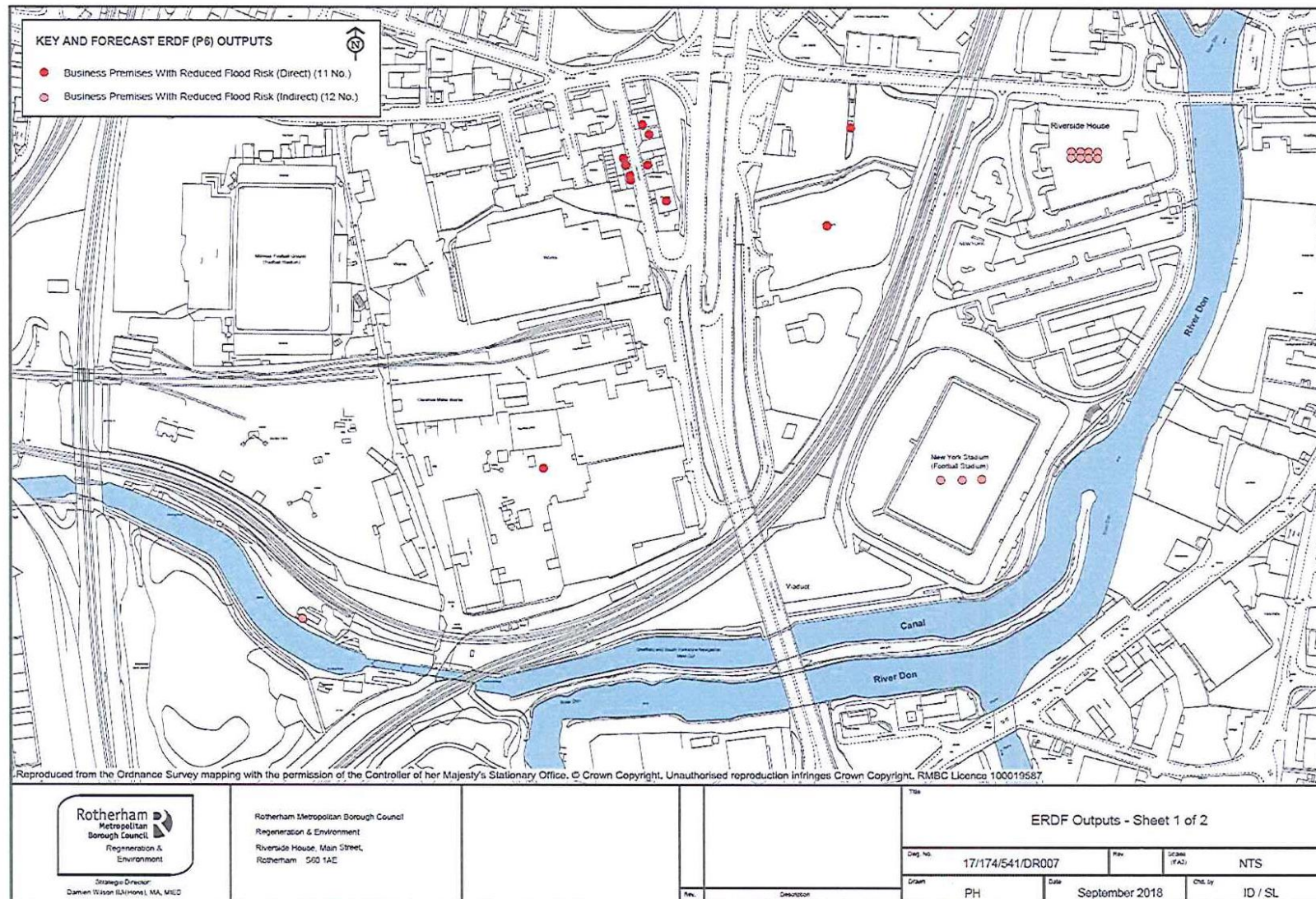
- 11.8 The project has further protected a total of 370 commercial properties in and around Rotherham town centre and has provided protection for range of rail, tram, road and wider infrastructure assets that are vital for the long term revitalisation of Rotherham Town Centre. This includes the Forge Island leisure led mixed use development.
- 11.9 Through the protection of these business premises, it is estimated the project will have support the long term safeguarding of **1,480 jobs**, or 1.5% of Rotherham's total employment base. On this basis the project should also protect a total **£65m** of sub-regional Gross Value Added per annum.
- 11.10 The project has offered good value for money and will have a range of wider regeneration driven benefits for Rotherham, including improving walking and cycling routes by the river (including part of the Trans Pennine Trail) and helping incorporate the River Don into the townscape.

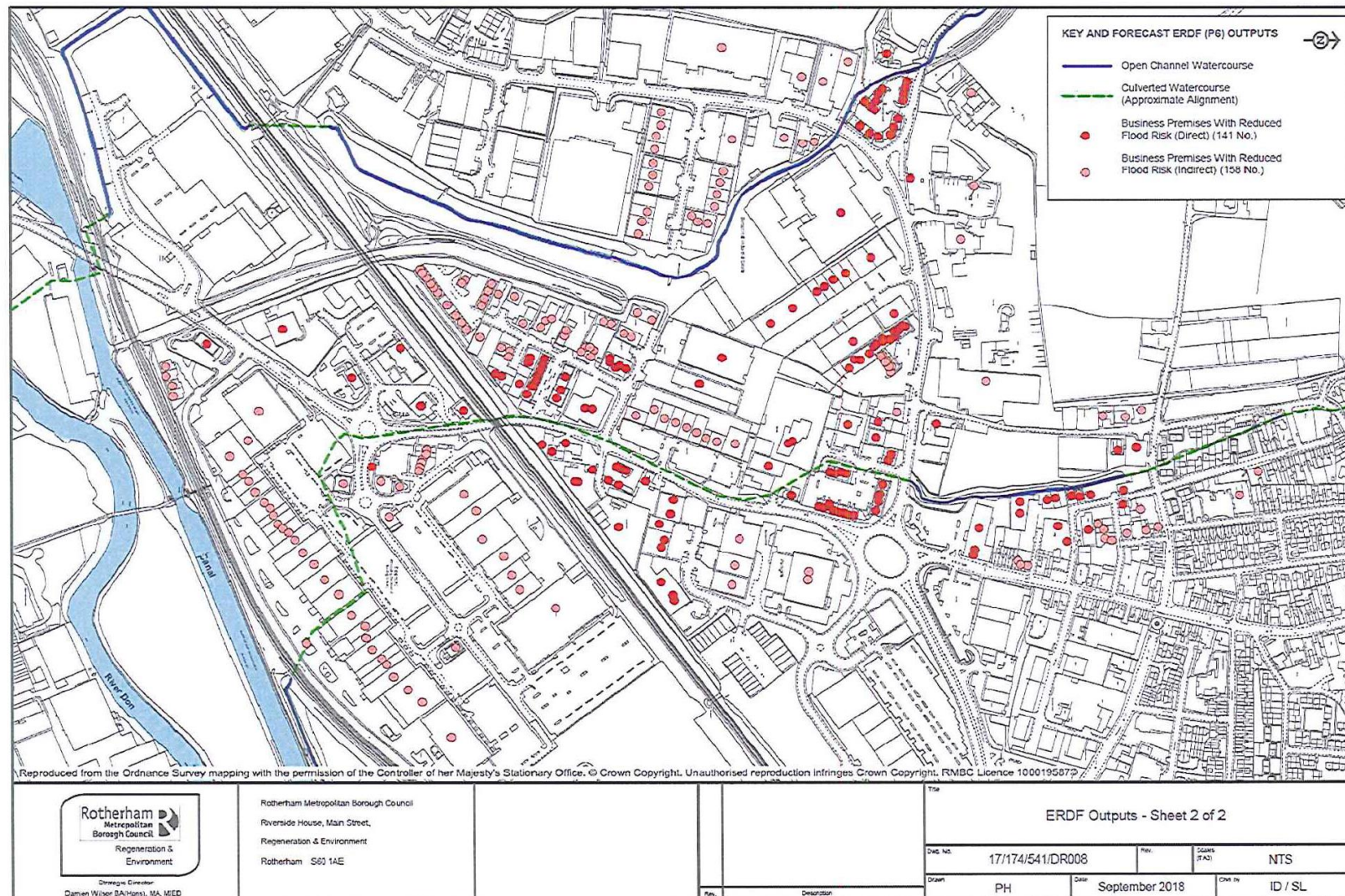
Appendix A - Logic Model

Appendix B – Project Location Map and Phasing



Appendix C – Businesses affected with reduced flood risk (Output P6) map – Phase 2A





Appendix C – Businesses affected with reduced flood risk (Output P6) map – Phase 2C

