



EARBY FLOOD RESILIENCE SCHEME

**Project Ref: 19R17P01668 Summative
Assessment**

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1. Introduction

In September 2022 Little Lion Research was commissioned by Pendle Borough Council (PBC) to conduct a summative assessment of the Earby Flood Resilience Scheme (the “project”). This report presents the findings of that assessment.

The project involves the delivery of a series of flood prevention measures to enable the town of Earby in Lancashire and its commercial and residential communities to become more flood resilient.

The £1million project has been part-funded by the Environment Agency (EA) and the European Regional Development Fund (ERDF) as part of the European Structural and Investment Funds (ESIF) Programme.

The project was approved in 2021 and was due to complete by the end of 2022, although a second Project Change Request (PCR) was submitted, and a timetable extension has currently been granted to January 2023. This interim assessment covers the period from the project commencing to Q3 2022.

Every summative assessment must cover the below five themes, in line with Department for Levelling Up, Housing and Communities (DLUHC) Summative Assessment guidance, tailored to the project in question. This entails an assessment of the project’s:

1. Relevance and consistency
2. Progress against contractual targets
3. Delivery and management performance
4. Outcomes and impact
5. Cost effectiveness and value for money

Research undertaken for the summative assessment included:

- reviewing the project’s ESIF full application form;
- a site visit;
- analysis of project performance data;
- beneficiary consultation notes - a list of consultees is provided at Appendix B; and
- benchmarking against summative assessments of similar projects.

The report is structured around the following chapters:

2. **Project context** - considers the project’s logic model alongside the economic and policy background and context in which it was designed, the project’s objectives and rationale for the delivery approach.
3. **Changes to project delivery context** - considers the changes in the economic and political environment which may have affected the project.
4. **Financial and output performance** - considers the project’s performance against ERDF expenditure and output targets.
5. **Project delivery performance** - provides a qualitative analysis of project’s delivery performance and considers the elements of delivery which have gone well and less well.
6. **Outcomes and impacts** - sets out the progress that the project has made towards the outcomes and impacts set out in the logic model.
7. **Conclusions and recommendations** - outlines initial conclusions which can be drawn from the assessment and the lessons for policymakers.

2. Project context

This section sets out the context from which the project was conceived, the rationale for public sector intervention, and proposed delivery of outputs and outcomes. The purpose is to provide a baseline reference point to:

- gauge the relevance and consistency of the project;
- set out spend and output targets that are the basis for testing project performance; and
- summarise the objectives, outcomes and impacts the project hopes to achieve for gauging effectiveness and value for money.

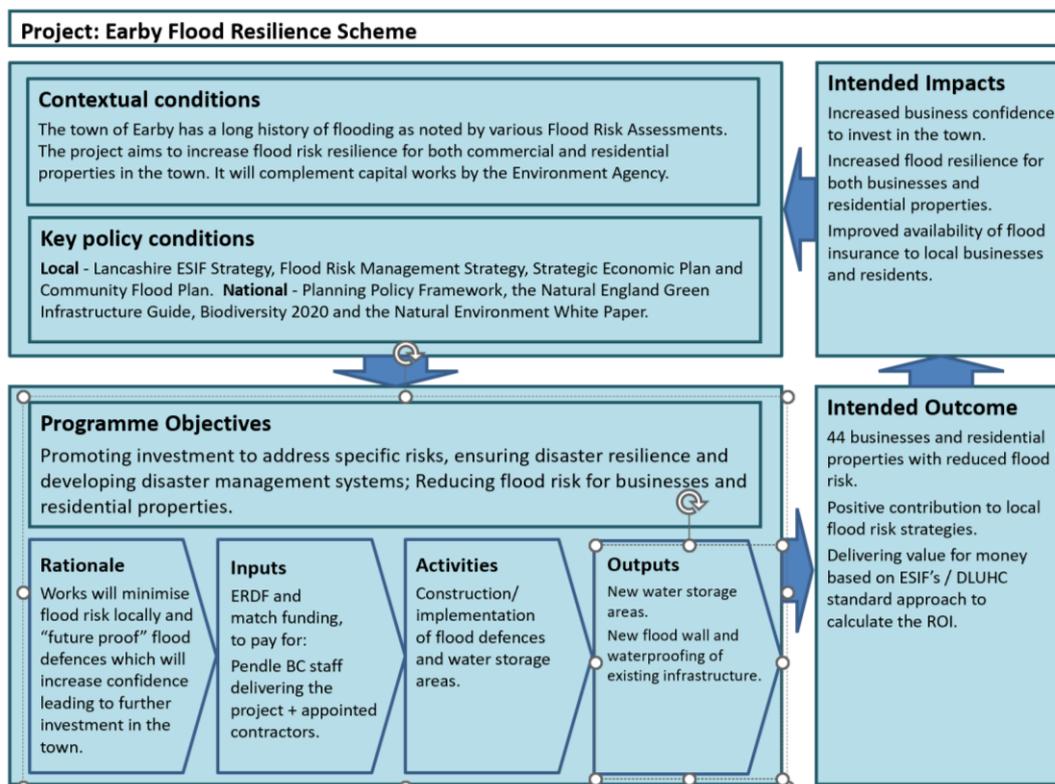
The analysis in this section has been informed by:

- a review of background documents, including the project's original application form and other internal project management and delivery documents; and
- interviews with members of the delivery team and wider stakeholders.

The Project logic model

The logic model for the project, demonstrating the reasoning and objectives behind the project and the approach to achieving the intended outcomes and impacts from the project is shown below.

Figure 1: Project logic model



Strategic context

The project has been designed to align with national and local strategy which seeks to promote investment to improve disaster resilience, specifically delivering flood mitigation activity.

The policies of most relevance are summarised below:

National level

- **National Planning Policy Framework (NPPF) (2012, revised and updated 2018 & 2019)** - which sets-out land-use planning policies in the UK with a presumption in favour of sustainable development. Specifically, it states that “*plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk.*” The NPPF supersedes guidance originally set out in the Natural England Green Infrastructure Guide to promote green infrastructure delivery.
- **A Green Future: Our 25 Year Plan to Improve the Environment (2018)** - which aims to boost economic growth and productivity by enhancing natural capital, including adapting to the challenge of climate change and supporting River Basin Management Plans.

Local level

- **Local Flood Risk Management Strategy for Lancashire** - which requires Lancashire County Council (LCC) to produce a Local Flood Risk Management Strategy (LFRMS).
- **Lancashire ESIF Strategy, 2014-20** - which details county-level priorities when providing project funding. This project specifically addresses Theme 1: ‘Investing in Strategic Infrastructure, Development and Environmental Resilience’.
- **LCC Economic Strategy** - which aims to support economic growth and prosperity in the county, including through strategic infrastructure projects and encouraging economic development in the more deprived areas of the county such as East Lancashire (where Earby is based - see map below).
- **Pendle District Level 1 Strategic Flood Risk Assessment (2006)** - which provides evidence and informs the Local Planning Authority when considering development and infrastructure works.

Earby also has a local Flood Action Group to keep residents and businesses informed of current flood risks and provide advice on how to improve resilience / flood preparedness.

Project background and rationale

Earby is in Lancashire, close to the border with North Yorkshire (see Figure 2 overleaf).

Earby is constantly ‘at risk’ from flooding. Local newspaper reports dating back to the early 20th century record significant flooding in the town. Hydraulic modelling conducted by the EA assessed the risk to the town from flooding as occurring once every 75 years but due to climate change this has reduced to once every 20 years with greater risk at properties adjoining the New Cut watercourse.

Figure 2: Location of Earby in Lancashire



In December 2015 major flooding occurred in the centre of the town. This included flooding at Victoria Clough, New Cut (where local businesses in Victoria Mill were flooded as well as residential properties) and on Earby Beck. The A56 (Skipton Road) which runs through the town was also flooded together with local properties.

Following the 2015 floods (and a subsequent event in 2016) plans started to be developed with relevant stakeholders to try and improve flood resilience in the town. Photos of historic flooding in the town are contained in **Appendix A**.

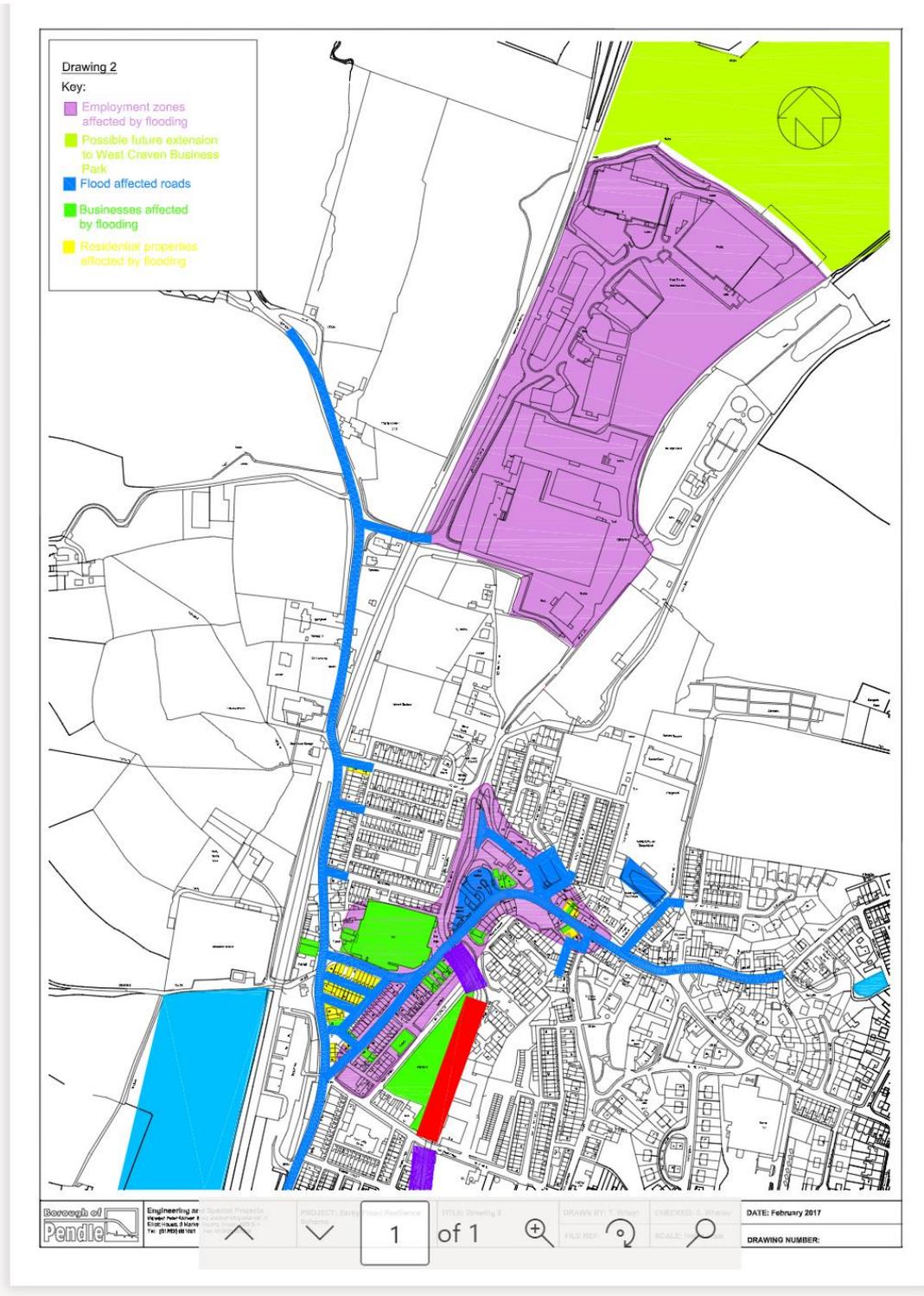
Figure 3 overleaf shows the centre of Earby and the roads, commercial and residential areas currently affected by flooding. The focus of this project was on improving flood defences at the New Cut watercourse (marked in red and dark purple on the map) and the surrounding properties, notably Victoria Mill (marked in green on the map, alongside the New Cut).

Market failures

The project has been designed to address the following forms of market failure:

- **Positive externalities** - there are positive societal impacts resulting from investment in flood mitigation measures such as improved economic resilience in the town (and the West Craven Business Park) and improvements in local environmental habitats (e.g., the riverbed).
- **Negative externalities** - frequent flooding in Earby is economically disruptive, meaning that its main retail area is inaccessible to the local community who may therefore shop elsewhere. More widely flooding on the A56 makes a key east - west route in the county impassable with wider economic impacts for the region. Flooding makes it more difficult for local businesses and residents to get insurance against flood risk which reduces the incentive for people to move to, or invest in, the town and can cause stress and mental health issues for people living under the ongoing threat of flood risk.

Figure 3: Site map



Project objectives

The ESIF application form outlines the main objectives of the project:

- To achieve a greater level of flood resilience for the businesses in Victoria Mill, Victoria Road and residents of Earby.
- To encourage economic growth and investment in the town and at West Craven Business Park.
- To complement capital works highlighted by the EA.
- To support the economic viability of Lancashire by protecting the strategic east-west road network (A56).

Project activities

Specific activities to be delivered as part of this project include:

- Flow control and flood water storage at Victoria Clough to limit the amount of flood water entering the flood susceptible areas of the town.
- Waterproofing of building walls (commercial property) and raising of parapet heights directly adjacent to the watercourse.
- In-channel restoration of the riverbed and habitat creation on the river embankments.

Project inputs and timescales

Total funding for the project is £1,083,000 with ERDF contributing £635,260 (59%) of the total. The remainder (£447,740 - 41%) is funded by the EA.

Figure 4: Project expenditure breakdown, original funding application

Costs	Total expenditure	Total % of funding
Building and construction	£875,000	87%
Fees	£125,000	13%

Two PCRs have been submitted in 2021 and 2022 and both were approved.

In the first PCR, project output P6 was decreased from 64 to 44 'businesses and properties with reduced flood risk'. Project output C23 - 'surface area of habitats supported in order to attain a better conservation status' - of 3 hectares was also removed. Changes were made due to the project being better informed through the EA conducting flood modelling appraisal work which included detailed hydraulic modelling.

Changes included works to create a flood storage area on Victoria Clough and floodwall on the New Cut watercourse instead of three separate flood storage areas and measures to address the surface water risk at West Craven Business Park. At this stage the creation of pocket parks and implementation of upland moorland management was also removed.

The first PCR removed the distinction between building and construction and fee costs. All costs were now classed as building and construction costs. The project end date was amended with the Financial Completion date changed from the end of March 2020 to the end of December 2022.

The second PCR was submitted in September 2022. This was due to delays in obtaining the EA Flood Risk Permit for the Sheet Piling Works which resulted in the whole scheme being delayed. Some additional protection for the mill units was also included in the works. Finally, a percentage of the capital funding was moved to revenue to enable PBC to employ a consultant to complete the Summative Assessment which is a requirement of the funding. The project end dates were amended with the Practical Completion put back from the end of August 2022 to the end of January 2023. The Financial Completion date changed from the end of December 2022 to the end of February 2023.

The second PCR did not alter the overall project budget and did not alter the required number of outputs for the project to achieve.

Project outputs

The project has been set the following output targets:

- **P6 - Businesses and properties with reduced flood risk = 44.** This has been calculated based on the number of businesses and properties that have been directly affected by flooding in the past that will benefit from the scheme.

The beneficiary-level outcomes expected to be achieved over the course of delivery are:

- Improved economic resilience for the businesses in Victoria Mill and businesses and residential properties on Victoria Road.
- Improved access to flood insurance for local businesses and residents.
- Improved mental and physical well-being for residents due to the reduced risk of flooding.

Summary

When considering the policy context at both a national and local level the project rationale remains valid. Responses to climate change, including flood resilience, are a core part of local economic and environmental plans and this project seeks to address both issues.

Wider consideration of existing market failures the project seeks to address could also have been included in the initial ESIF Full Application Form.

3. Changes to project delivery context

This section provides a brief analysis of any changes in the economic and policy context, which have been relevant to the project, impacted on the original rationale or caused the shape of operational delivery to change. Those of greatest relevance are summarised below.

Key strategic contextual factors

Since project inception, there have been developments, updates and revisions in the national and local policy environment relating to flood resilience and environmental planning.

National level

- **National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England** - The Flood and Water Management Act 2010 placed a statutory duty on the EA to develop FCERM strategies and to provide strategic oversight of local risk management authorities such as PBC for developing local plans and operational activities. The 2020 budget doubled funding available to develop FCERM strategies.
- **The EA's FCERM Strategy Action Plan, 2021**. Following the 2020 funding increase for FCERM strategies the EA launched its Plan to work alongside partners to deliver flood defence investment as well as working with insurers, infrastructure owners, agricultural bodies, and environmental agencies to improve flood resilience.
- **National Planning Policy Framework**. Revised in June 2021 with continued guidance on meeting the challenge of climate change, flooding, and coastal change.

Local level

- **LCC Environment and Climate Strategy, 2023-25** - the strategy has three key activities, include 'Climate change'. Aims under this activity include "ensuring our infrastructure, assets and services are resilient to the impacts of climate change" and "managing flood risk and water resources".
- **Pendle District Level 1 Strategic Flood Risk Assessment**. Revised in July 2021 with updated maps and data to identify sites of flood risk.

Key socio-economic contextual factors

COVID-19, cost inflation and changes in the lead funder for the project have impacted the delivery context.

COVID-19

Since the pandemic outbreak in the UK in March 2020, the Government has enacted several measures, which have restricted economic and social activity, to curb the spread of the coronavirus. Whilst most of the construction work has taken place in 2021/22 as restrictions were being eased the project delivery team did still have to consider working restrictions.

Cost inflation

High levels of cost inflation in the construction industry due to supply chain issues and material shortages impacted the project budget. A £200,000 contingency fund was drawn down by PBC to cover this cost inflation.

Change in project lead funder

The EA was initially going to be the lead delivery partner for the New Cut project. However, following a review of the project they concluded that it was not deliverable within their existing funding structure for this type of project.

PBC took over delivery leadership and was able to get better value for money from local contractors that it regularly works with during the tendering phase of the project.

Ongoing maintenance costs

Consideration also had to be given to which authority will be responsible for maintaining the new infrastructure and assets upon completion of the project. This led to some minor delays which have now been resolved.

Summary

Whilst updates and revisions have been made to local and national flood resilience policies since project inception this assessment is of the view that they do not invalidate the ongoing rationale for the project.

Funding and cost inflation pressures did alter the context in which the project was delivered (and associated timelines) and these were the two issues most frequently mentioned in consultations with the project team and other local stakeholders. However, these issues were addressed and resolved, enabling the project to remain on budget.

4. Financial and output performance

This section provides a summary of the project’s performance against ERDF contracted financial and output targets, analyses performance to date and assesses expectations for the future.

Please note that the financial and output performance analysis below draws on evidence from the two PCRs and financial and output information for Q3 2022, which assesses financial and output performance against the original targets.

The factors for performance against the adjusted PCR expenditure are set out below.

Performance against contractual ERDF targets

In September 2022 a second PCR was submitted to put back Practical Completion from August 2022 to January 2023 and Financial Completion from December 2022 to February 2023. This request was granted.

The PCR did not alter the overall project budget and did not alter the required number of outputs for the project to achieve.

Figure 5: Project spend and output performance, Q3 2022 and forecast at project completion

	Targets		Performance at Date of Latest Available Quarterly Claim		Forecast performance at project completion	
	Original Target	Adjusted Target (Q3, 2022)	No.	% of Adjusted Target	No.	% of Adjusted Target
Expenditure						
Project Value	£1,083,000	£1,083,000	£587,988	54%	£1,083,000	100%
ERDF	£635,260	£635,260	£306,214	48%	£635,260	100%
Public Match	£447,740	£447,740	£281,774	64%	£447,740	100%
Private Match	£0	£0	N/A	N/A	N/A	N/A
Outputs						
P6 - Businesses and properties with reduced flood risk	44	44	0	0%	44	100%

Financial performance

By Q3 2022, £587,988 had been spent against a target of £1,083,000 (54%).

The current underspend is attributed to a delay in the start of the project due to the reasons stated in the latest PCR. Final construction work in Q1 2023 is expected to see the project meet its expenditure targets.

Output performance

By Q3 2022 no outputs have been claimed by the project. However, this is due to Practical Completion being put back until January 2023 and it is expected that all outputs (and potentially a greater number than the initial target) will be achieved in Q1 2023.

Summary

Whilst the project is currently behind its targeted spend and output performance this is due to the Practical and Financial Completion of the project being moved back to Q1 2023. All consultees and members of the delivery team have expressed confidence in this date being met and two PCRs for the project have been accordingly approved.

Spend and output performance should be revisited following Practical and Financial Completion of the project to provide a fuller picture as to overall project performance.

Consultees mentioned various delays in work commencing and progressing (please see Chapter 5 for further information) which have led to the current underspend and delay in achieving the final outputs.

The project delivery team noted initial frustration from funders that capital expenditures were not being made but face-to-face meetings helped to reassure the funding team that progress was being made and helped to explain the delays in work commencing (and the associated expenditure).

5. Project delivery performance

This section assesses the key lessons learned, effectiveness of and messages from the project, both in terms of implementation and delivery and draws on evidence, information, and insights from a range of sources:

- performance data and background information collected by the project team for and throughout its delivery;
- in-depth consultations with the project delivery team and management and strategic partners - for a list of consultees see **Appendix B**; and
- telephone interviews with local stakeholders - for a list of stakeholders see **Appendix B**.

Project delivery background

The activities were delivered by PBC's Engineering Department. They led on the project design, procurement, and implementation. Following the procurement process a lead contractor was appointed to carry out the work (and appoint sub-contractors if required).

Following approval of the ESIF bid the detailed scheme design for the New Cut section of works was undertaken by the Council's engineering team (in consultation with the EA and local landowners), then procured through the Lancashire Procurement Hub thus ensuring value for money resulting in the appointment of competent Contractors to undertake the schemes.

Project management and reporting

Within the project team, the roles and main responsibilities of the delivery staff included:

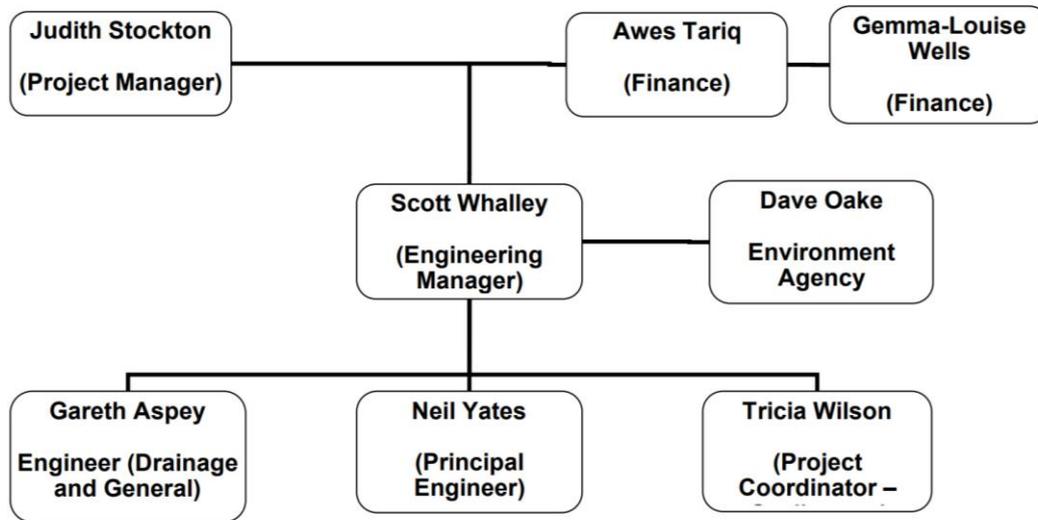
- A **Project Co-ordinator** who led strategic coordination, received regular progress reports from the delivery team and submitted claims, progress and PCR requests to the relevant bodies.
- An **Engineering Manager** who advised on the design of the project in consultation with contractors and liaised with relevant stakeholders to acquire the permits needed for the work.
- An **Engineer** who was on-site day-to-day to assist and oversee the contractors commissioned to carry out the work.
- The **lead contractors** to build and deliver the new infrastructure.

An organogram of the project team is set out on the following page.

The project team also worked with other stakeholders including the EA, LCC and Yorkshire Water when required to secure the relevant permits or permissions where the project involved assets or infrastructure owned by an external party.

There were effective management structures in place to oversee delivery, with transparency in roles and team responsibilities. Consultations indicated that staff work well together, which was due to frequency of communication in the team.

Figure 6: Project Team organogram



Project communication and community engagement

The Project Co-ordinator noted initial communication with the EA in 2018/19 to carry out initial flood modelling for the project but there was less contact with the EA once PBC took the overall lead delivery role on the project.

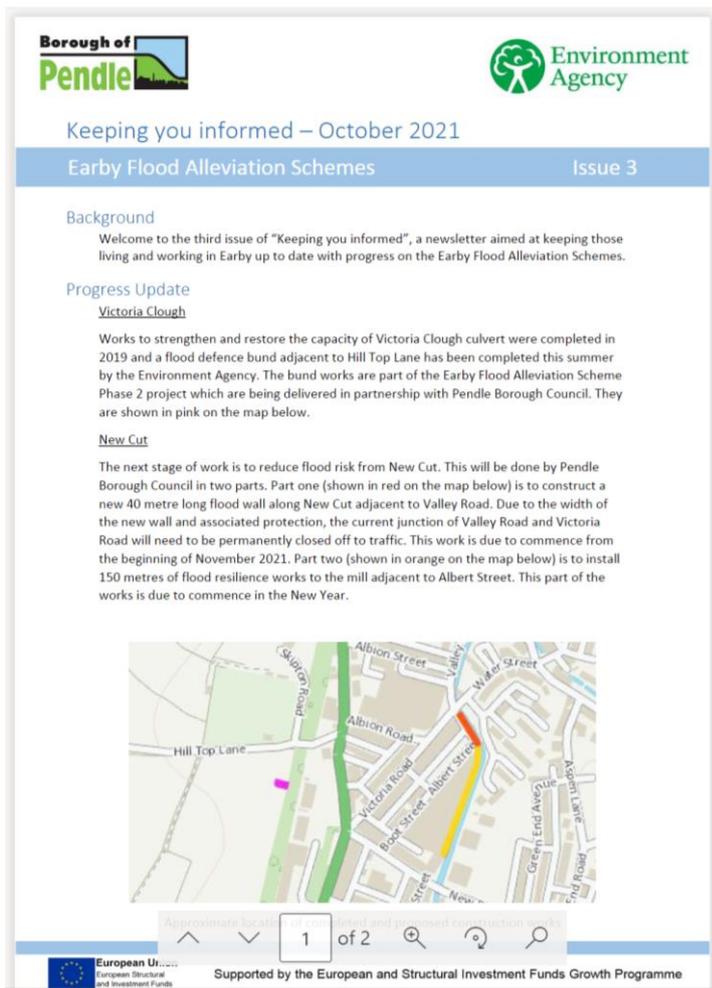
The Council's Engineering team reported effective communication with all delivery partners and regular communication with LCC and Yorkshire Water where the project required those bodies to be involved (e.g., turning off street lighting; impact on local sewerage infrastructure).

A town meeting regarding the project took place in March 2019 with some community engagement. The owners of Victoria Mill attended this meeting and representatives from the EA were also present.

However, due to changes in the lead delivery partner and the design of the project, work did not commence until early 2021 leading some of the community to see this as an unnecessary delay.

As part of the project PBC and the Environment Agency have produced regular "Keeping you informed" newsletters for residents with updates and contact details for members of the project team. An example of these newsletters is overleaf.

Figure 7: Project newsletter



Local community stakeholders reported that communication with local delivery partners was good but as the focus of the work on the New Cut watercourse impacted commercial businesses rather than residents there was less feedback from residents of the town.

Impacts on project delivery

Consultations drew out a few issues that impacted project delivery, leading to delays for the project timeline.

Change in lead delivery partner

Both sections of the project (Victoria Clough and Victoria Mill) were initially intended to be delivered by the EA. However, in Spring 2021 the EA withdrew from its leadership role (but not their funding role) on the Victoria Mill works due to concerns regarding adverse ground conditions. The EA had already delivered the works on Victoria Clough at this stage. PBC took over leadership of the Victoria Mill section of the project and, whilst this change did not lead to a delay in the project, it did require permit applications to be made to the EA due to project redesign (see below).

This led to a delay in work on the project commencing and placed additional resourcing requirements on the Council's Engineering Department which had an impact on other projects that the Department was not able to deliver whilst the project was ongoing.

Whilst PBC and the core delivery team showed they were able to take over leadership of the project very effectively this change in project leadership did lead to local unhappiness amongst beneficiaries which was made public. Given that the EA will continue to have a role in future flood defence work in the town this should be taken into consideration when recommendations for future projects involving the same stakeholders are made.

Project redesign

PBC's Engineering Department redesigned the Victoria Mill flood wall section of the project as the initial designs may have led to riverbed silting issues and may have not provided the best possible protection for businesses occupying Victoria Mill.

An additional 6-metre-high steel sheet pile wall has been fixed into the riverbed to stop water permeating under the mill. Works were also initially intended to be completed inside the mill and then transferred to the river, but this was seen as non-viable due to the disruption it would cause to businesses occupying the mill. Instead, the contractor set-up a compound in an adjacent car park to construct the flood walls and sheet piling which were then placed into the river. Whilst this did lead to some local car parking being temporarily out of action it had the benefit of minimising disruption to the businesses in the mill.

On-site issues

Consultees mentioned various issues during the construction process that have led to minor delays in completion of the works including inclement weather. Contractors also needed to hire specialist equipment to reduce disruption of the riverbed following an initial release of silt. This led to revised timescales as the EA had to be notified of the incident and construction budgets were altered to hire the new equipment. However, the EA did not see this issue as being a major issue to hold-up progress.

Permitting requirements

The EA had ongoing oversight requirements for the project and some consultation feedback mentioned that changes to the project plan necessitated sending updated applications and drawings to the EA and a wait for new permits to be issued. This did lead to some timeline delays but also provided the on-site engineering team with useful project management experience when liaising with external delivery partners and other stakeholders.

Summary

Since its inception, the project's delivery approach has been consistent with its intended logic model, but the delivery team made changes to its design following a review of the objectives and the practicalities of different delivery and construction methods.

The core delivery team has communicated well and feedback from delivery partners and local stakeholders has been very positive. Reporting processes have been consistent and thorough.

Local community engagement has been limited due to the commercial nature of the beneficiaries for the work on New Cut. However, local councillors have ensured that the community has been fully involved in the project since initial proposals over 6 years ago and updates have been made available in the form of newsletters and via the local press and local Town Council website / meeting minutes.

The project has faced some challenges, particularly from changes to the design and delivery, but these have been addressed and dealt with efficiently.

To maximise the benefit for the delivery of future benefits we would recommend regular communication with wider stakeholders such as the EA, LCC and Yorkshire Water to maintain support for continued flood defence improvements in the town.

Upon completion of the project, we would also recommend a final update and communication with residents and businesses so that they are aware of what work has been completed during Phase 1 and Phase 2 of the town's flood defences and any future planned work on Earby Beck. This communication could also be used to remind residents of what financial and other support is available to them to help mitigate flood risk to their property.

6. Project outcomes and impacts

The Earby Flood Resilience Scheme aimed to deliver a series of flood prevention measures to enable Earby and its commercial and residential communities to become more flood resilient.

This section provides a summary of the beneficiary consultation findings on outcomes and impacts at the local and county level to provide insight on the project's impact.

Assessment of outcomes

Impact on flood resilience

Prior to the project commencing the town had been flooded on multiple occasions including significant flooding in 2015. The initial ESIF application highlighted that the town was constantly "at risk" of flooding and previous environmental modelling had highlighted flood risk in the town and the impact of climate change (which ESIF Priority Axis 5 specifically seeks to address).

This project (and the related, earlier works on Victoria Clough in the town) sought to provide a "future-proofed" series of flood protection measures to guard against future flooding events. Consultees noted that following the 2015 floods additional drainage and water pumps were installed, and portable flood barriers purchased, but that these may still be inadequate in times of heavy water flow without the works on New Cut.

The ERDF and EA matched funding model also ensured that the project could be delivered, and the town better protected against future flooding events. Other funding models were not available to the delivery team, so this funding model was crucial. For example, the project did not meet the EA's criteria for solely EA-led funding of flood defence projects due to the total value and quantum of properties to be protected.

Analysis carried out for the EA by an independent consultant estimates that the project has led to a reduced flood risk for 100 properties in the town (59 residential and 41 businesses) which is more than double the initial target of 44 properties to benefit from reduced flood risk.

Hydraulic modelling shows the benefits of the works to the area and the EA will be updating its flood maps upon completion to show the benefits of the work - this is important as the maps are used to assess flood risk insurance premiums. As previously noted, a negative externality at the outset of the project was the difficulty in obtaining flood risk insurance for some businesses and residents of the town. One consultee mentioned that some businesses and residents have not been able to get insurance and hoped that this project would rectify the situation.

Overall, whilst consultees noted that no scheme could provide a complete guarantee against any future flooding in the town, the view was that the works have improved flood resilience in Earby.

Photographs of the work carried out are in **Appendix A**.

Delivering blue and green infrastructure and increasing biodiversity

The initial ESIF application proposed the creation of “pocket parks” to create flood water storage basins and to increase biodiversity through habitat creation. Due to economic constraints the environmental improvements were removed in the first PCR and the project has been focussed on delivering the flood defence improvements. However, in Q4 2022 the delivery team are focussing on a river channel restoration plan to be agreed and approved with the EA, working in conjunction with an environmental consultant.

A reduction in flooding risk in the town will also help protect existing habitats and biodiversity. A consultee also noted that the project means that the riverbed of New Cut will also regenerate, bringing environmental benefits to the local area. All later works following the initial release of silt from the riverbed complied with EA requirements to avoid silt disturbance helping to protect the local environment.

Supporting local and national flood policies and climate change initiatives

The project aimed to align with government flood planning and policies as well as local community flood planning. As highlighted in the project context chapter the delivered works align with the updated NPPF, LCC’s Local Flood Risk Management Strategy, Pendle’s Strategic Flood Risk Assessment and the EA’s wider FCERM strategy.

The works on New Cut is the second part of three projects identified by the EA and PBC as being of importance to the town. With works on Victoria Clough and New Cut now complete consultees noted that the flood resilience team can now focus on trying to secure funding and flood defence improvements for the largest of the three parts at Earby Beck. Successfully demonstrating how the works at New Cut support local and national policies may bring additional benefits and support in securing funding for the Earby Beck phase of works.

Supporting the local economy

The project aims to contribute towards the delivery of Lancashire’s ESIF Strategy by protecting key economic sites through flood mitigation. It also supports LCC’s Economic Strategy which aims to encourage growth, particularly in the more deprived areas of the county such as East Lancashire.

Consultees agreed that both the works on flood storage at Victoria Clough and the flood wall at Victoria Mill would make both the Mill (adjacent to the New Cut water course) and West Craven Business Park in the town more attractive to potential occupiers due to the reduced risk of flooding. It was also highlighted that the new flood defences will help protect economic activity in the town as Victoria Road, which has previously flooded, is the principal retail street in Earby. When Victoria Road floods many residents must travel to other local towns for shopping, reducing economic activity in Earby for a period.

The project also improves flood defences for the A56 road through the town. This is a key part of Lancashire’s east-west strategic road network and closure of the road has wider detrimental economic impacts on the region.

It also noted that the project should save PBC money in future due to a reduction in flooding events and the resultant lower costs of cleaning-up after floods. This money saved may then be invested in further flood defences/environmental improvements or spent on other priority projects for the town and region that promote economic development.

Assessment of impacts

Consultees raised two main impacts on the project during the evidence gathering stage of this assessment.

The lead delivery organisation for the project was initially going to be the EA. This changed to PBC in 2021 when the EA assessed that they could not deliver the project within their cost-benefit parameters. Some local stakeholders described this change as being “at the 11th hour” and felt that it led to unnecessary delays in delivering the project.

It also placed additional resource requirements on PBC’s Engineering team, which resulted in other projects having to be put on hold - “that had a major impact and we had to stop doing other things to deliver this project.”

However, it was also pointed out that PBC were able to deliver the project more cost effectively than the EA due to their existing relationships with building contractors and other experts in the local area. As a result, the project was still delivered on budget and evaluation of PBC as the new lead delivery organisation has been very positive with one consultee stating, “without Pendle Borough Council this project would not have taken place.”

Secondly, the project delivery team had to deal with cost escalation during the project. This was due to the requirement to source specialist equipment for some of the works on the riverbed and more general cost inflation issues in the construction industry. However, consultees stated that the project will be delivered within budget and cost efficiently. Discussions around future financial responsibility for ongoing maintenance of the flood defences and related new assets have also been completed satisfactorily with all parties.

Strategic Added Value

The table below summarises how the project has delivered wider strategic added value (SAV) benefits, based on the consultation evidence.

Figure 8: Strategic Added Value

SAV pillars	Evidence of SAV benefits
Strategic Leadership and Catalytic Effects	<p>The project demonstrates that PBC can deliver flood defence projects on time and on budget. It has also provided PBC team members with invaluable experience - “a great learning curve” - of project management and financial management.</p> <p>Consultees noted that the successful delivery of the project gives PBC the benefit of a proven track record and may help support future bids for flood defence work.</p> <p>A catalytic effect identified was that the project increases the likelihood of future work being done on larger schemes in the town (i.e., Earby Beck) and helps raise the profile of the town with the relevant agencies tasked with supporting flood planning whereas previously there was a view that the town lost out to larger towns and cities in the region due to both its geographic location and existing cost-benefit analyses.</p>

	Completion of the project will also support other local infrastructure such as the sewerage system due to the reduced need for pumping out when water levels are high.
Engagement	The project has sufficiently engaged with wider stakeholders and facilitated discussions. However, some noted that stakeholder relationships could be strengthened further in future delivery. It would be beneficial for all parties to seize more opportunities for collaboration where there is a strong strategic fit, to continue to promote flood defence and alleviation work in the town. In general, consultees were keen to continue and improve engagement with anchor institutions in the remainder of delivery and on future projects.

Due to the localised nature of the project and works carried out there are few wider synergies, strategic influence, or leverage opportunities but, as noted in the assessment of outcomes, the project does support local and national policies in this area.

It was also noted that a wider benefit of the works is the intangible benefit of “peace of mind” for residents as flooding risk is seen as a blot on the local area which can have negative impacts on local mental and physical wellbeing.

Horizontal principles

The activities delivered by the project directly support the delivery of the ESIF horizontal principles of environmental sustainability and equality of opportunity.

The new flood defences deliver positive **environmental benefits** to the town by reducing the potential risk of flood damage to local habitats and the riverbanks. A management plan has been developed to ensure these benefits and maintained and protected.

The **social benefits** of the project include increasing the appeal of the area to the local community and helping to reduce the fear and risk of flooding for local businesses and residents which can have a detrimental effect on mental well-being. PBC is also committed to equality of opportunity and equality and diversity policies were a central part of the procurement process.

The **economic benefits** include protecting the main retail street in the town (which has to close during episodes of flooding, reducing economic activity) as well as local businesses which provide employment opportunities to residents.

Value for money

Our assessment of the project’s value for money draws on the projected total expenditure (£1,083,000) and planned outputs (44 businesses and properties with reduced flood risk). Should the project achieve these outputs on budget it would represent a cost of **£24,613 per property protected**.

Current projections from the delivery team are that the project will achieve a much higher number of businesses and properties protected, with external consultants for the EA calculating that 100 businesses and properties will be protected in total. This higher figure would represent a cost of **£10,830 per property protected**.

From a review of other ERDF Investment Priority 5 projects which have been contracted to deliver P6 - Businesses and properties with reduced flood risk outputs we note:

- At the Investment Priority 5 level, the average costs per property with reduced flood risk (based on contracted spend and outputs) is £5,800.
- Costs per property with reduced flood risk for a similar Investment Priority 5 project was £24,250.

Thus, whilst the Earby project's cost per property with reduced flood risk is higher than average - which is to be expected given the small size of the town compared to other locations that have received flood defence spending - it is in line with the cost achieved by a similar project in a similar town. We therefore judge that the project has delivered value for money.

Summary

The project is on course to outperform its target outputs of 44 properties with reduced flood risk whilst maintaining cost control in a challenging delivery environment.

The project has also been a strong strategic fit with both local and national flood prevention policies and has demonstrated that PBC can deliver these types of projects efficiently and in partnership with local stakeholders.

The green and blue infrastructure improvements envisaged have been more limited but there is potential for these to be delivered during phase 3 of the flood defence works (Earby Beck) if funding applications are successful.

Economic benefits are hard to quantify in the short-term, but consultees noted that the works provide greater protection to the town centre where much economic activity is based as well as the businesses occupying the mill which is a source of employment for the town. The works offer better flood protection on the main A56 road which serves West Craven Business Park, a key employment site in Pendle.

More widely, the project has enhanced project management and financial management skills for the delivery team and has built stronger relationships between stakeholders whereas previously there was the view that Earby was overlooked for large-scale capital investment projects.

The project's cost per property with reduced flood risk is in line with the cost achieved by a similar project in a similar town. We therefore judge that the project has delivered value for money.

7. Conclusions and recommendations

Conclusions

1. The Earby Flood Defence Scheme was well designed and supports local and national policies to promote flood defences and adaptation to climate change. Modelling by agencies indicate that the risk of flooding will continue to increase due to climate change and the successful delivery of this project (together with other flood defence work in the town) will have a long-term beneficial impact.
2. The project is on track to exceed its output targets for the number of businesses and properties with reduced flood risk and updated flood risk maps produced by the EA should help demonstrate the success of the project.
3. This project would not have been financially viable without ESIF support as flood defence projects in smaller towns may not always meet financial viability criteria, leading to community dissatisfaction.
4. Timeline delays were due to issues with COVID-19, delays in permits being received and alterations to work on-site. However, once work commenced, these delays have been minor. The main issue flagged by consultees has been the time between the initial project planning after the 2015 floods to the delayed start of the works. The local community is pleased that the work has been completed to a high standard but believes it could have been delivered more quickly.
5. There have been limited environmental benefits from the project as the primary focus was on construction of flood defences, with water storage and habitat creation potentially being reconsidered for inclusion in future projects.
6. There was effective communication within the delivery team, but relationships with wider stakeholders could be strengthened.
7. The project's cost per property with reduced flood risk is in line with the cost achieved by a similar project in a similar town. We therefore judge that the project has delivered value for money.
8. The project has delivered added value impacts, by reducing the "flood risk anxiety" for residents and businesses in the town and providing an excellent opportunity for skills development amongst the project delivery team at PBC.
9. Over the long-term the project will also benefit other infrastructure in the town such as Yorkshire Water's pumping station and the local sewerage system.

Recommendations

1. PBC should seek to maintain good working relationships with local partners and stakeholders - in particular, the EA - to benefit future funding applications under future funding schemes.
2. PBC should develop a case study of how the project was delivered in support of them taking similar roles for other projects (i.e., Earby Beck).
3. The delivery team may consider an analysis of the availability of flood insurance in the town and the impact on residential and commercial property demand once the EA's flood risk maps have been updated and disseminated.
4. Local organisations should encourage community involvement in flood defences via the local Flood Action Group. Details of the work carried out, and financial and practical support available to residents and businesses, should be uploaded to Earby Town Council's website and other local information sources.

Appendices

Appendix A: Photographs

New Cut and surrounding streets before work commenced including historic flooding
(source: Councillor David Whipp)





Ongoing work - September 2022 (source: PBC)





Ongoing work - October 2022 site visit (source: Little Lion Research)





Appendix B: List of consultations

Name	Role	Organisation
Scott Whalley	Engineering Manager	Pendle Borough Council
Tricia Wilson	Project Co-ordinator	Pendle Borough Council
David Oake	Flood & Coastal Risk Management	Environment Agency
Arshad Hussain	Flood & Coastal Risk Management	Environment Agency
Carl Wiseman	Director	Marchbridge Builders
David Whipp	Local Councillor	Pendle Borough Council
Rosemary Carroll	Local Councillor	Pendle Borough Council
Mike Goulthorp	Local Councillor	Pendle Borough Council