ROCHDALE AND LITTLEBOROUGH FLOOD RISK MANAGEMENT SCHEME

DESIGN AND BENEFITS GUIDE (LITTLEBOROUGH - PHASE 1)

Environment Agency

Contents

FOREWORD

Communities across Greater Manchester have repeatedly experienced the devastating effects flooding has on lives and livelihoods and I have seen first-hand the immediate and longer-term impacts that flooding has for communities such as Rochdale and Littleborough. Our changing climate is already giving us wetter winters, greater intensity summer storms - and the risk of flooding is set to increase over time. We need to act now and plan for a future that makes the communities in the Roch catchment better protected and more resilient to climate change.

The Flood Risk Management Scheme will reduce the risk of flooding and improve the resilience of Littleborough and Rochdale. In developing the scheme, which will better protect 723 homes and 489 businesses from flooding, we considered 49 different design options. This approximately £150m investment in the Roch catchment will not only bring an improved level of flood protection but will see improvements to community spaces, key infrastructure and the environment.

Looking to the future, collectively we will need to do more across the Roch catchment that allows us to adapt further to our changing climate. This includes better catchment planning, protecting lives and livelihoods from flooding and enhancing the ability to recover quickly. We have delivered Natural Flood Management works upstream of Littleborough through Environment Agency projects and at Moorland Children's Home as part of the Rochdale Council-led Resilient Roch programme of works and look forward to further developing community flood resilience.

The Environment Agency cannot do this alone and we want to work with communities and a wide range of partners to deliver a better place and future for people in the Rochdale borough, Greater Manchester and wider North West region.

Nick Pearson – Environment Agency, Greater Manchester Area Flood Risk Manager

Environment Agency

SECTION 1

BACKGROUND

BACKGROUND

This document provides an overview of Phase 1A and 1B of the Rochdale and Littleborough Flood Risk Management Scheme, how the schemes will be delivered, and what the community can expect during this time.

Littleborough sits within the River Roch catchment which is characterised by a steep valley catchment and multiple tributaries which cause the River Roch to respond rapidly to rainfall, with river levels rising quickly. The urbanised river valley has an industrial heritage with a legacy of modified channels, bridges, culverts and weirs which further exacerbate the flooding problem. The construction of flood defences through Littleborough will not only reduce the risk of flooding but will create a lasting benefit for the community and environment, through reducing the risk of blockages, carbon emissions (by reducing the carbon footprint of replacing damaged household items, damaged buildings etc. following a flood) and promoting biodiversity enhancements. Our plans will result in an overall improved environment for wildlife, the local community, and visitors to the town. The Environment Agency started construction on the Flood Risk Management Scheme in Littleborough in 2021 which, when complete, will provide **better flood protection to 337 homes and 185 non-residential properties.**

Phase 1A included several work packages across various locations in Littleborough. The works completed were:

- **Riverstone Bridge:** Demolition and replacement of the existing road and footbridge with a combined bridge, widening the river channel and landscaping.
- **Charles Street:** Removal of the bridge over the River Roch to improve flood flows, followed by constructing an infill wall with railings and landscaping.
- **Peel Street:** Raising the height of the flood wall and related landscaping.
- **Town House Brook:** Enhancing the flood defence wall, installing trash posts to reduce debris build up within the downstream culvert, access improvements and landscaping..
- **Carriage Drive:** Repairing the bank to restore channel width and clearing debris from the culverts.

May 2020

Phase 1A planning application approved

March 2021

Enabling works construction start at Gale and 1A construction

July 2022

Planning application Littleborough Phase 1B

September 2023

Full business case approval for Phase 1B

March 2024

Construction start on Littleborough Phase 1B areas

Early 2025

Detailed design start on Rochdale Phase 2

PHASE 1A PHOTOGRAPHS

Images of the newly constructed Riverstone bridge at Hollingworth Park (2024), planting at Hollingworth Park (2024) and wall raising, timber fencing and landscaping at Charles Street (Oct 2023)

BACKGROUND – Phase 1B

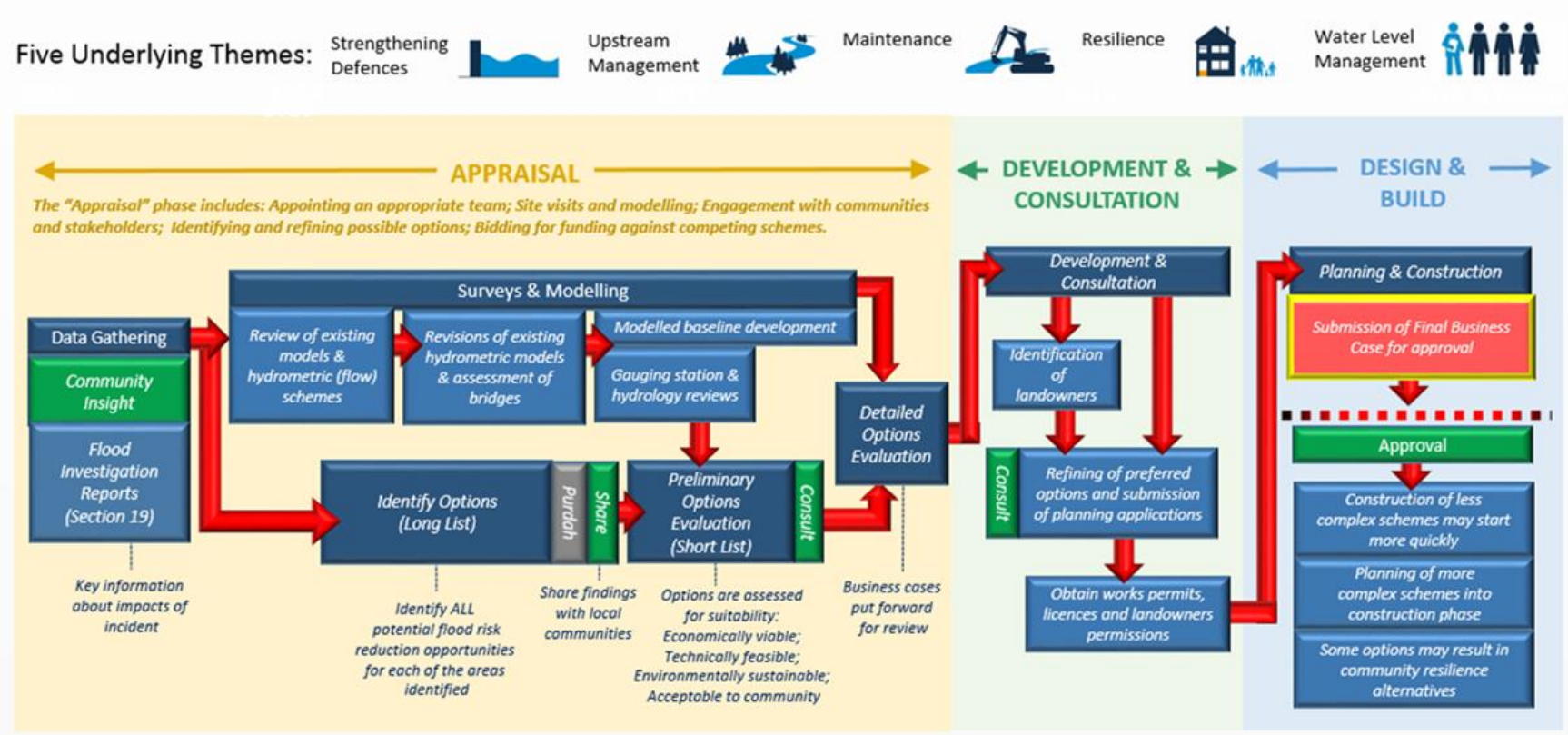
Phase 1B started construction in 2024 and will deliver the following works:

- **Grove Lodge –** Construction of a flood defence wall along a rail embankment, habitat and footpath improvements.
- **Reddyshore Brow –** Bank reinforcement, erosion control works to private gardens and waterproofing to private houses.
- **Gale West –** Construction of earth embankments and sheet pile walls to form a flood impounding structure. In addition, the construction of a flow control structure, maintenance track and access track, installation of CCTV, telemetry kiosk, railings and gates.
- **Gale East –** Construction of an earth embankment and diversion structure to create a flood water impounding structure.
- **Central Vale and Greenvale Business Park –** Reinforced earth flood defence embankments and sheet pile flood defences within Greenvale Business Park.
- **Ealees Brook –** Construction of sheet pile walls along south side of channel and landscape reinstatement works.
- **GNG Foam Converters –** Service diversions required prior to Phase 1b works comprising construction of new flood defence wall in place of existing brick boundary wall.

Site photos: Gale West, Summer 2024

THE FLOOD RISK MANAGEMENT JOURNEY

Through a process of public consultation, engineering analysis, environmental assessment and economic appraisal, over 49 design options were tested against four criteria leaving a preferred set of options to take forward for Littleborough Flood Risk Management Scheme.



Potential design options included:

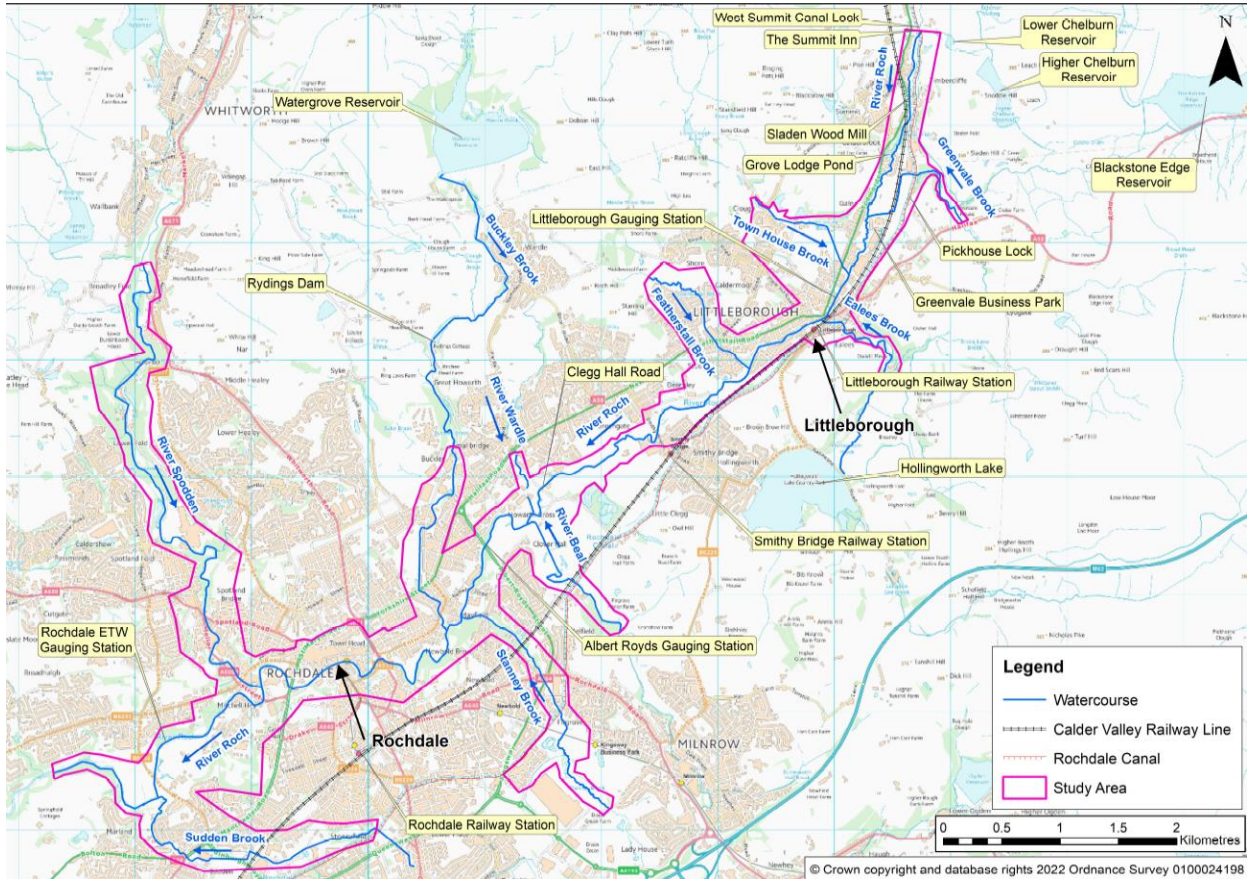
- Flood storage
- Linear defences
- Increase conveyance
- Removal of weirs
- Pumping
- Improved culverts
- Replacement of bridges
- Flow routing
- Increased gravel removal
- Property level protection
- Natural Flood Management

Option were then shortlisted depending on:

- Technical suitability
- Environmental impact
- Economic viability
- Social acceptability

Short list options were appraised in further detail using the four tests. A preferred option was then selected.

CATCHMENT BASED APPROACH



The overall Rochdale and Littleborough Flood Risk Management Scheme will seek to address the high-level flood risk to the towns of Rochdale and Littleborough in Greater Manchester, by improving flood risk management along the River Roch. Littleborough Phase 1A and 1B combines the following measures:

Phase 1A: Culvert insulation, road bridge and footbridge replacement, river channel widening, landscaping works, modification of existing flood defence walls, debris removal and bank repairs.

Phase 1B: Construction of flood defence walls, habitat improvement, footpath improvement, embankment reinforcement and construction, erosion control works, construction of flow control structures, creation of flood water impounding structures and sheet pile flood defences.

Flood walls and embankments within communities will provide a localised level of protection that will provide homes and businesses with greater reassurances.

The culvert insulation is critical for the proposed flood storage reservoir at Gale Site, which will slow the flow of the River Roch and Greenvale Brook into Littleborough town centre.

FLOOD RESPONSIBILITIES

Environment Agency:

The Environment Agency have a strategic overview of all sources of flooding and are responsible for flood risk management activities on the main rivers within communities. The Environment Agency's main aim of helping people and wildlife adapt to climate change and reduce its impacts, ensures that areas of current flood risk, such as Littleborough, are resilient, managed effectively and prepared for future flood events.

Lead Local Flood Authorities and Councils:

Lead Local Flood Authorities are county councils and unitary authorities that lead in managing local flood risks. These include risks of flooding from surface water, groundwater or ordinary (smaller) watercourses. District and Borough Councils, such as Rochdale Borough Council, are Risk Management Authorities and key partners in planning local flood risk management and management of minor watercourses.

Collaboration of Responsibilities:

Lead Local Flood Authorities, the Environment Agency and all other Risk Management Authorities must work together to ensure risks are managed effectively and that local and national plans are interconnected.

Environment Agency

ROCHDALE BOROUGH COUNCIL

The Resilient Roch Project

Overview

The Resilient Roch Project is targeted on Littleborough and Wardleworth and will be completed in March 2027. It is developing an integrated approach to climate and flood resilience focusing on delivering improved property level flood resilience, measures to better manage surface water and rainwater and making homes more energy efficient. This initiative is part of the government's National Flood and Coastal Erosion Risk Management Strategy for England, funded by the Flood and Coastal Resilience Innovation Programme (FCRIP) and where properties are eligible links with further Government and local initiatives to deliver warmer, energy efficient homes.

Aim of the Project

- Develop a holistic approach to flood and climate resilience, improving both flood and climate resilience of housing in the borough of Rochdale focused on Littleborough and Wardleworth.
- Deliver a step change in community participation.
- Increase people’s capacities to prepare for and respond to flooding.
- Improve flood resilience for community facilities.
- Enhance surface water management, create a culture of rain gardening and increase biodiversity.
- Develop better financial resilience for homes and businesses including increased insurance take up.
- Compliment the project being carried out by the EA to alleviate flooding from the River Roch between Littleborough and Rochdale Town Centre.
- Implement natural flood management and sustainable drainage measures in the wider Roch catchment.
- Help the whole community improve water quality and storage through these measures.
- Involve the whole community as every resident has a part to play in reducing flood risk across the borough of Rochdale.
- Develop neighbourhood plans to encourage delivery of additional benefits for climate and flood resilience beyond the close of the FCRIP funded programme.
- Develop and disseminate best practice.

Services Provided

- Subject to available funding a flood resilience survey and installation of recommended measures such as flood doors can be provided free of charge for qualifying properties. Subject to assessment properties may also be eligible for a free energy efficiency survey and a subsequent package of measures.
- Advice, information and training regarding flood resilience including specific events for residents, property owners and businesses.
- Opportunities to participate in local activities including training and volunteering.

SECTION 2

NATURAL FLOOD MANAGEMENT

INTRODUCTION

Introduction to Natural Flood Management (NFM):
NFM forms part of our proposals for reducing flood risk and is complementary to traditional engineered flood defences measures.

The steep catchment and multiple tributaries cause the River Roch to respond rapidly to rainfall with river levels rising quickly. Therefore, NFM options will not provide the level of flood protection needed without working together with more traditional flood defences.

The NFM options will assist upland management to slow the flow of the watercourse and support flood risk from fluvial flooding.

The rapid response of river levels to rainfall events means that NFM alone would be insufficient to provide the required level of flood protection. Thus, the combined approach of traditional engineered flood defences, such as flood walls and flood storage areas, alongside NFM measures, was preferred. This hybrid strategy ensures immediate and effective flood risk reduction while also promoting sustainable, long-term water management and ecological benefits.

Natural flood management techniques

1. In stream structures for example woody debris
2. Blocking of moorland drainage channels
3. Woodland planting
4. Land and soil management practices, cover crops, hedgerows, suitable crops
5. River morphology and floodplain restoration for example removal of embankments and remeandering
6. Inland storage ponds and wetlands
7. Protecting riverbanks for example stock fencing
8. Sustainable urban drainage systems for example swales, wetlands in urban areas, green roofs, permeable pavements, detention ponds, filter strips
9. Saltmarsh restoration
10. Coastal managed realignment
11. Coastal change management

Taken from the National Flood and Coastal Erosion Risk Management Strategy for England

NATURAL FLOOD MANAGEMENT (NFM) IN LITTLEBOROUGH

The Rochdale Children's Moorland Home- NFM measures installed through Rochdale Borough Council's Resilient Roch Project. There has been calculated approximately 0.4Ha of NFM benefit, 0.8Ha overall habitat benefit with additional tree planting and wetland creation that the home will be able to utilise as an educational resource for pond dipping etc. Approximately 5,000m^3 flood volume storage estimated in terms of extreme events (see photos on the next page).

Littleborough - Tree trunks that were collected from the construction activity have gone from the Littleborough site to other local a… around Littleborough, providing NFM benefits.

Previous local NFM work – NFM interventions, including bunds, which delivered 12,200m^3 of flood water and tree planting in the upland catchment of Littleborough and Wardle, along with wet grassland and a significant numbers of trees planted.

Using trees as NFM will protect the local communities from flooding impacts but also bring positive benefits for wildlife, water quality and climate regulation

Cleared areas of trees retained for NFM use.

Trees cleared from Littleborough site being used for NFM works.

Previous NFM works which passes normal and low flows, but attenuates peak flows during storms.

IMAGES OF THE ROCHDALE CHILDREN'S MOORLAND HOME NFM

SECTION 3

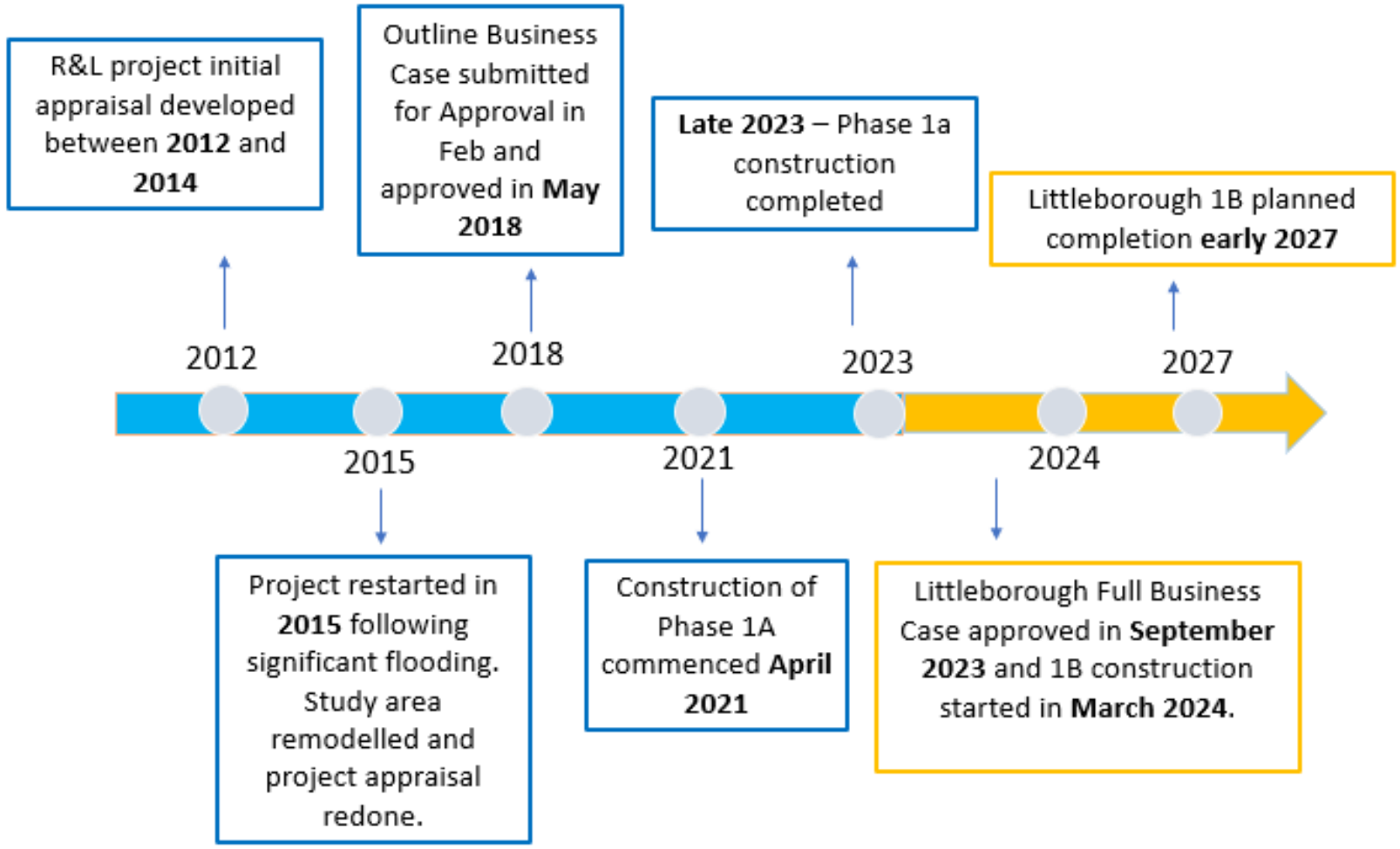
DELIVERING A FLOOD RISK MANAGEMENT SCHEME FOR LITTLEBOROUGH

DELIVERING A FLOOD MANAGEMENT SCHEME FOR LITTLEBOROUGH

When complete, the Littleborough Flood Risk Management Scheme will deliver a series of catchment-wide flood risk, community, environment and economic benefits.

In Littleborough, we are creating better public access, enhancing the environment through landscaping and planting habitat rich species, improving biodiversity along the river corridor and preserving areas of local heritage importance. We will also seek to integrate art and seating in key areas as the construction progresses.

The timeline on the right shows how the Littleborough scheme has developed to date and key future milestones.



FLOOD STORAGE BASIN

What is a Flood Storage Basin?

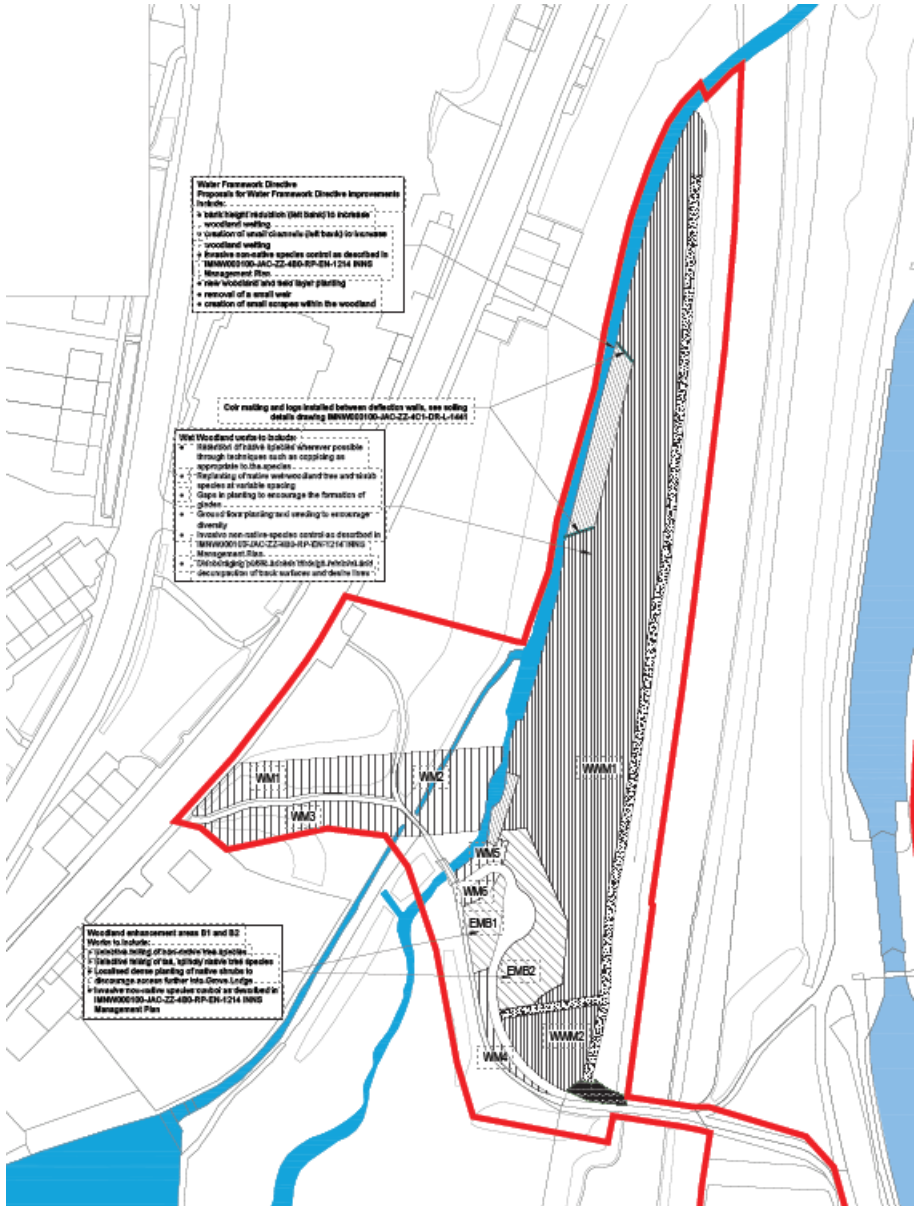
Flood storage is the use of an outlet structure which holds or slows flood water entering the downstream river channel, then returns it to a river at a controlled rate, once the flood peak has passed. These structures are especially useful in extreme events when there is more water than the watercourse can hold.

Benefits:

- Reduces flood risk by retaining overflow that the river cannot hold
- Ponds and wetlands can be landscaped to provide aesthetic and amenity value
- Provides wildlife benefits to habitats and biodiversity

Littleborough Flood Storage Basin - The Littleborough Flood Risk Management Scheme proposes a future flood storage reservoir for the Gale site, which will hold water back and slow the flow of the River Roch and Greenvale Brook into Littleborough town centre. The flood storage basin capacity is in the order of 75,000 cubic metres.

KEY DESIGN FEATURES - Grove Lodge



At Grove Lodge there will be 2011m^2 of wet woodland planted, 1778m^2 of woodland enhancement and 1067m^2 of woodland planting. (Total 4856m^2)

Water Environment Regulations improvements include:

- Bank height reduction (left bank) to increase woodland wetting
- Creation of small channels (left bank) to increase woodland wetting
- Removal of non-native invasive species
- New woodland and field layer planting
- Removal of a small weir
- Creation of small scrapes within the woodland

Woodland enhancement areas include:

- Selective felling of non-native tree species
- Selective felling of tall, spindly native tree species
- Opening up of tree canopy to allow light to ground layer and to riverbanks
- Localised planting of native shrubs/ ground flora, especially in glades
- Invasive non-native species management

Public access will be discouraged into the wet woodland through removal and decompaction of track surfaces and desire lines.

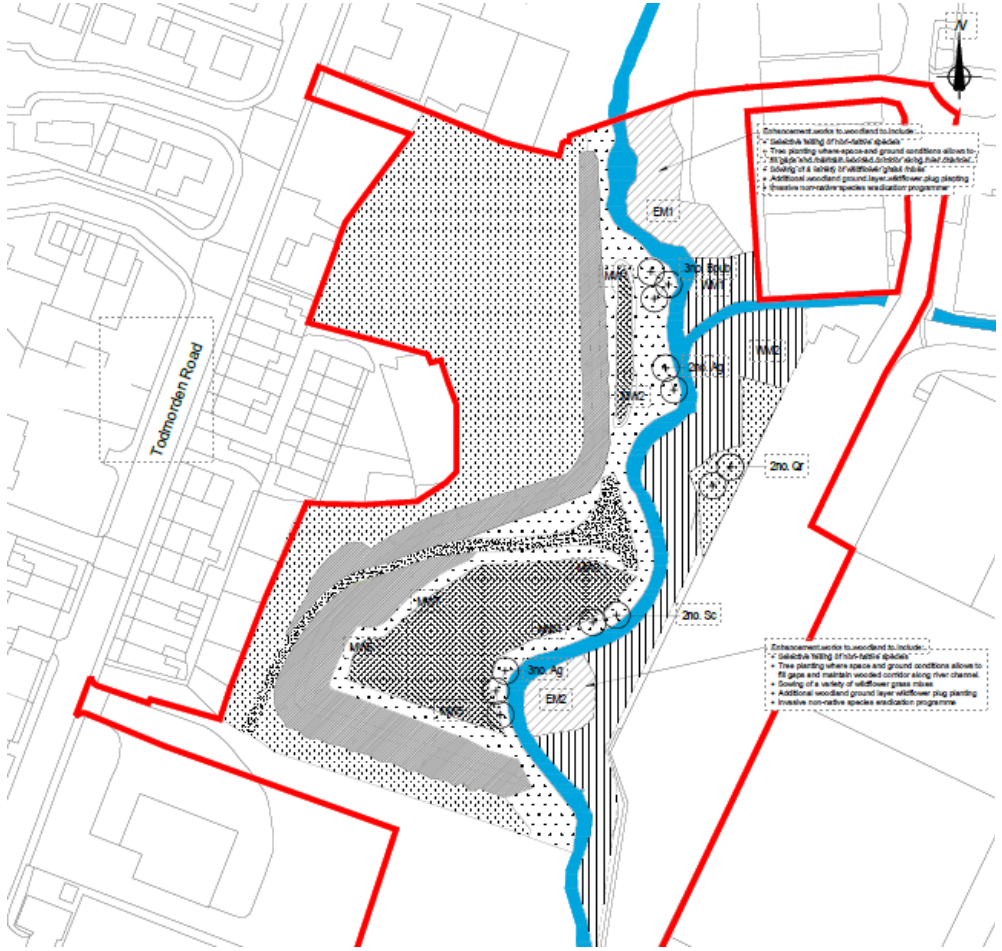
KEY DESIGN FEATURES - Grove Lodge

At Grove Lodge there is evidence of otters in the River Roch. Therefore, as part of the works at Grove Lodge, there will be an otter holt/lay-up created from site-won material and log piles created from site-won material, as well as bird and bat boxes and seating areas.

EXAMPLE CHAMBER CONSTRUCTION

EXAMPLE FINAL CONSTRUCTION

KEY DESIGN FEATURES - Centre Vale



Enhancement works to woodland to include:

- Selective felling of non-native species.
- Tree planting where space and ground conditions allows to fill gaps and maintain wooded corridor along river channel.
- Sowing of a variety of wildflower grass mixes.
- Additional woodland ground layer wildflower plug planting.
- Invasive non-native species management.

SECTION 4

COMMUNITY BENEFITS

LINKING-IN WITH LITTLEBOROUGH'S PAST

Archaeology and History:

Littleborough has been an important settlement throughout history, with clear signs of occupation by early man, followed by of Celtic, Roman and Saxon occupation through its stone-built town centre. In the early 18th century, Littleborough earned the title of 'Mill Town' due to its numerous cotton mills and extensive textile industry, which was supported by the proximity to the River Roch. During the 19th century, Littleborough became known as the 'inland seaside resort' as thousands of weekend visitors would travel by steam train from across the UK to visit Hollingworth Lake.

Littleborough historical legacy is closely connected to the River Roch and as such, our scheme will help preserve the towns historical heritage while minimising flood risk along the urbanised river valleys. Our scheme has been influenced by this understanding and appreciation of the town, but also by its developing needs in the 21st century.

In Littleborough, significant efforts have been made to protect historic buildings from potential flood damage as part of the wider flood risk management strategy.

Community involvement is key to preserving Littleborough's heritage. Local authorities and heritage organisations work together to raise awareness about the importance of these historic sites.

ACCESS FOR ALL

It is important that the Littleborough Flood Risk Management scheme is inclusive, and that the principles of inclusive design are considered throughout the scheme design process, during construction and during operation.

The design teams have worked carefully to ensure that the needs of people are considered and that the principles of The Equalities Act 2010 are followed.

Examples include:

- Providing new tree, grass, wetland, wildflower, perennial, and shrub planting to promote mental health and wellbeing
- Providing seating in key locations where possible
- Avoiding stepped access where possible and creating new "up and over" ramped access
- Avoiding awkward level changes that may cause trip hazards, and ensuring visual contrast is designed into any necessary level changes.
- Ensuring that during construction, pedestrian diversions are well communicated, sign posted, and safe to use

Together with Rochdale Borough Council, we are identifying locations where we can improve, or connect into footpaths and cycleways as part of the scheme.

SECTION 5

Communication

COMMUNICATION AND PUBLIC ENGAGEMENT

The project team in Littleborough communicate and engage with the community in the following ways:

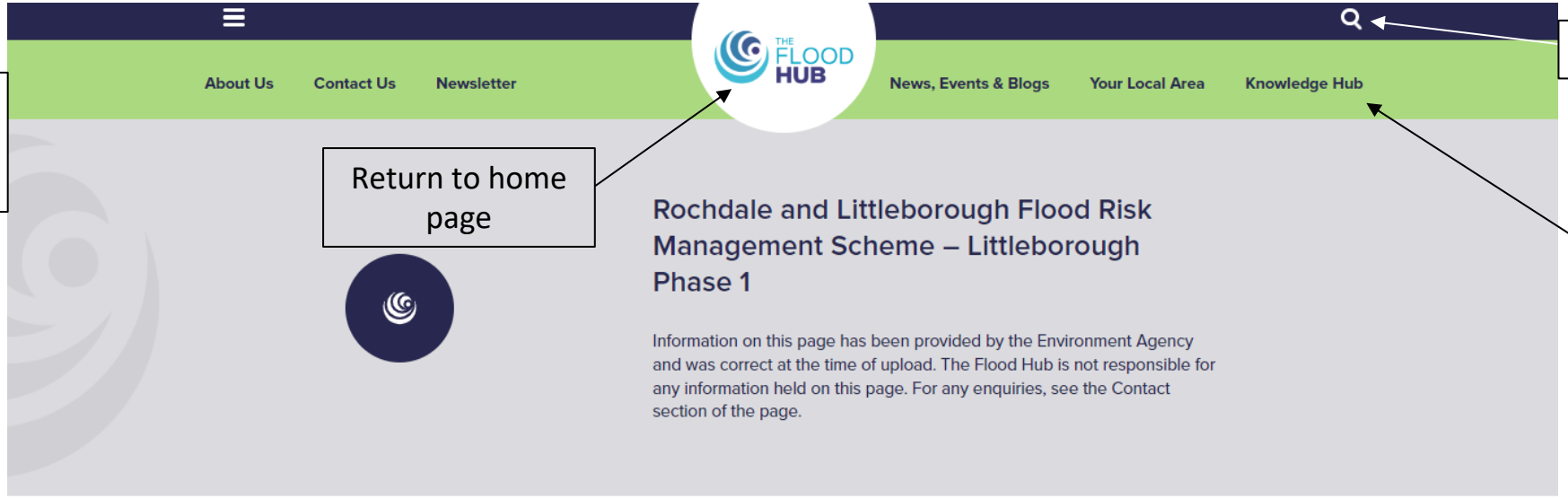
- Flood group meetings and links in with the National Flood Forum
- Regular Flood Hub updates
- Frequent communication and collaboration with Rochdale Borough Council and Resilient Roch project
- Quarterly newsletter
- Specific letter to affected residents, working closely with VolkerStevin
- VolkerStevin site-based Customer Experience Coordinator
- VolkerStevin Engage App

Project updates posted via:
https://thefloodhub.co.uk/rochdale-and-littleborough

There will be a number of opportunities to get involved in the scheme and we will be delivering some of these directly with local schools, community groups and charities. Keep an eye on the flood hub website for events that will be happening near you.

https://thefloodhub.co.uk/rochdale-and-littleborough

QR code to access the website



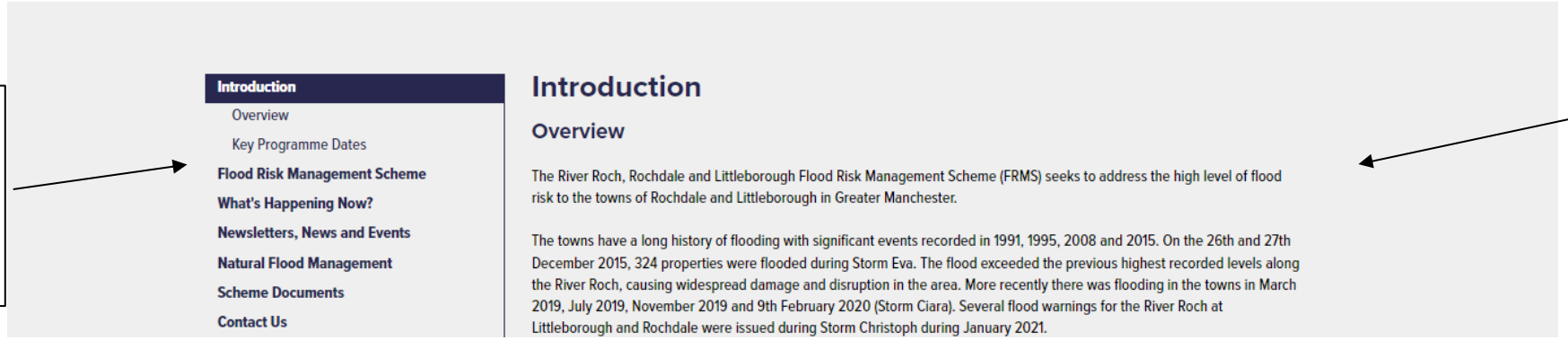
Search bar

Return to home page

Knowledge hub to learn more about flooding, flood resilience, climate change etc.

Environment Agency · Jacobs · VolkerStevin · Rochdale Borough Council · HM Government · NetworkRail · Transport for Greater Manchester

Side bar with different topics, including 'What's Happening Now' and newsletters



Text and photos describing the scheme and ongoing works

VOLKER ENGAGE APP

Introducing our new Flood Scheme Engagement App. Get all the latest updates directly to your phone!

The Environment Agency and VolkerStevin have launched a new phone app called “VolkerEngage”. The app is free, easy to use, and provides residents, business owners and members of the public with the latest updates about Rochdale and Littleborough Flood Scheme.

You can download it by scanning the below QR code or by going to your App Store and searching ‘VolkerStevin Engage’. Once downloaded, you will need to:

- Click the Privacy Agreement
- Select the Rochdale & Littleborough Scheme
- Select “Resident / Business Owner” OR “other Category”
- Tap the blue “Follow” button at the top of the screen

If you want to receive automated notifications about work updates, diversions or what works are upcoming then you will need to allow notifications. The app holds the latest information about the flood scheme, including a progress timeline and photographs. You can also use the app to provide feedback and contact the project team directly.

SECTION 6

ENVIRONMENTAL BENEFITS

LANDSCAPE AND PLANTING

Tree Planting

97 new trees will be planted. Unfortunately, some trees will need to be removed to allow works to take place.

Different size trees will be planted in order to serve different functions and to best suit certain locations.

To help the trees establish, they will be planted during the dormant season (November to March).

The table on the right details the tree planting plans, alongside other planting such as hedgerows and woodland enhancements. There will also be woodland understorey planting and wildflower planting.

Hollingworth Lake

Tree chippings from felled trees have been used to create a footpath around Hollingworth Lake Park, with the help of local volunteers.

Phase 1B proposed planting plans	Individual Trees	Hedgerow	Wet woodland Area (number of whips)	Woodland planting Area (number of whips)	Woodland enhancement Area (number of whips)	Small tree/scrub planting Area (number of whips)
Gale West	60	127m	435m^2 (112)	1060m^2 (260)	3962m^2 (166)	4344m^2 (1935)
Gale East	25					1199m^2 (544)
Centre Vale and Greenvale Business Park	12			1636m^2 (411)	656m^2 (28)	
Grove Lodge		40m	3100m^2 (775)	1067m^2 (267)	453m^2 (122)	
TOTALS	**97**	**167**	**3535m^2 (887)**	**3763m^2 (938)**	**5071m^2 (316)**	**5543m^2 (2479)**

Phase 1A planting (completed):

- 7 trees at Todmorden road
- 32 trees and 54 shrubs at Riverstone Bridge

TOTAL: 39 trees and 54 shrubs

BIODIVERSITY AND HABITAT CREATION IN GROVE LODGE

Below are some of the Native trees and seed mixes that will be planted in Grove Lodge, Littleborough. These species will complement the natural setting and provide food and shelter for wildlife.

Plug Planting


Reed Canary Grass


Common Reed


Common Sedge


Glaucous Sedge


Pendulous Sedge


Wild Angelica


Common Valerian


Water Mint


Hemp Agrimony


Marsh Marigold


Water Avens


Marsh Woundwort


Field wood-rush

Woodland/hedge Planting


Alder


Dogwood


Hazel


Hawthorn


Grey Willow


Downy Birch


Goat Willow


Guelder Rose


Osier


Silver Birch


Sessile Oak


Field Maple


Blackthorn

BIODIVERSITY AND HABITAT CREATION IN CENTRE VALE

Below are some of the ornamental and native trees, shrubs, grasses and perennial species that will be planted Centre Vale, Littleborough. Species will be selected that are appropriate in size and will provide seasonal interest and wildlife value, such as supporting pollinating insects and birds.

Woodland Planting


Field Maple


Alder


Silver Birch


Downy Birch


Hazel


Hawthorn


English Oak


Grey Willow


Guelder Rose

Marginal Wildflower Planting


Mint


Flag Iris


Marsh Yellow Grass


Purple Loosestrife


Common Yellow Sedge

Additional Understory Planting


Nettle-leaved Bellflower


Wild Basil


Hemp-agrimony


Wild Sweet William


Red Campion


Primrose

SECTION 7

SCHEME CONSTRUCTION

WORKING ARRANGEMENTS

Preparing for Construction

Ahead of any construction there will be a number of preparation works to carry out. In some locations we are able to deliver the construction works more easily due to larger working areas, the works not being complex in their nature, or because there is little interference from underground services. There are a number of locations however, where a number of preparatory works are needed before construction can begin.

All the working areas need to be free from utility services and have suitable access arrangements such as haulage routes. Some of the preparatory works may require footpath closures / diversions.

Working Hours

The approved working hours will be Monday to Friday from 8am to 6pm. We do not anticipate working outside of these hours often but as required, additional permissions will be applied for with Rochdale Borough Council. On exception and with prior notice, working hours on a Saturday would be 8am to 1pm.

Minimising Construction Noise, Vibration & Dust

Throughout the construction of the scheme, noise, vibration and dust levels will be monitored and managed to reduce any impact to homes, businesses, public areas, and the natural environment. Several monitoring techniques will be used and a range of measures to provide visual screening which will assist with reducing noise and dust levels. To manage any debris on the roads created by construction traffic, a full clean of the carriageway will be undertaken by a road sweeper or similar at a frequency that is appropriate.

Construction Traffic

Construction traffic will be predominantly along Todmorden Road and we aim to keep disruption to a minimum.

PHASING OF WORK

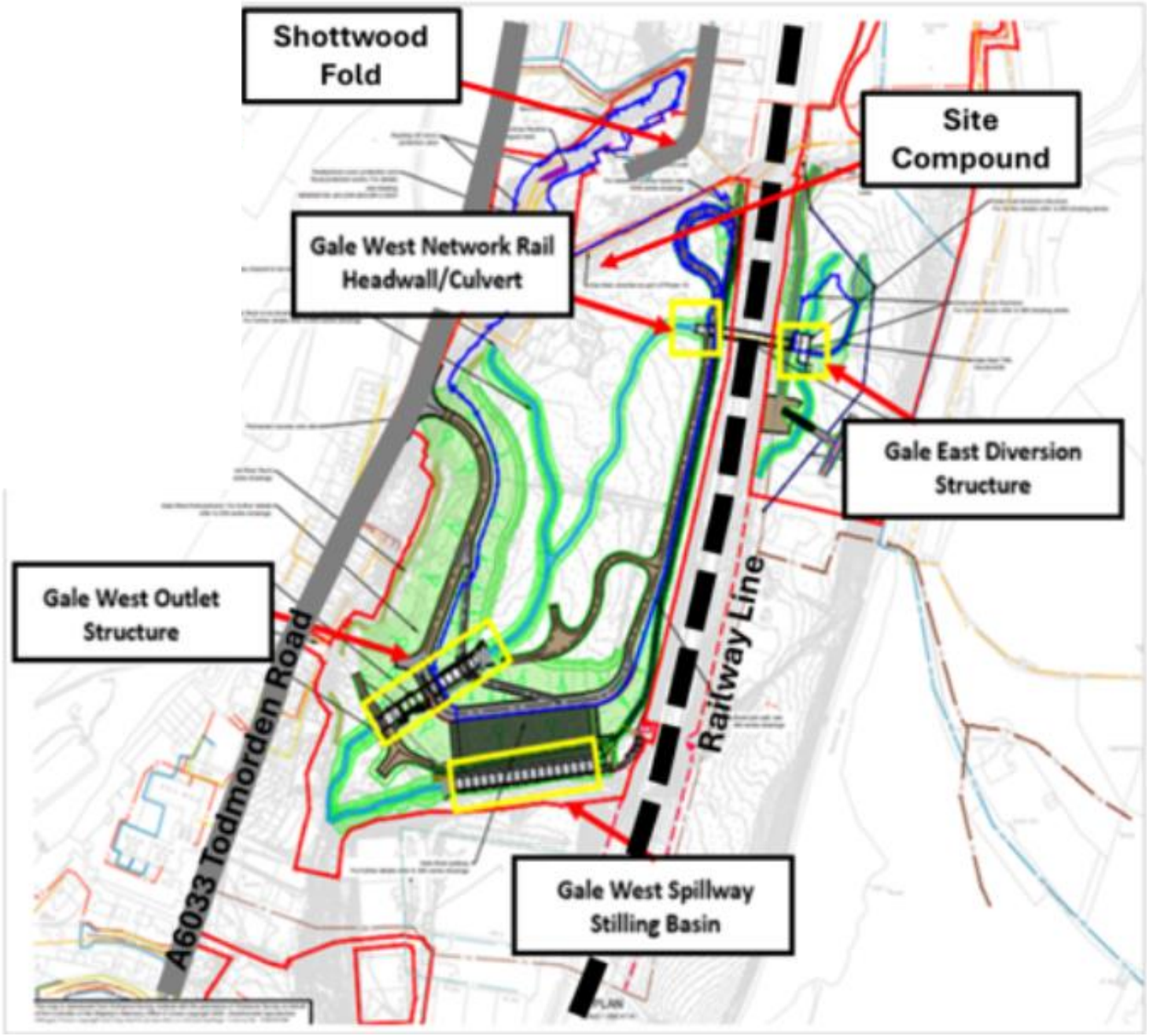
The Environment Agency look forward to engaging with residents, partners and businesses in the area as work packages progress.

The proposals include the construction of a flood storage basin at Gale West, along with flood defence walls in the vicinity, the details of which are listed on Page 7 of this Design and Benefits Guide.

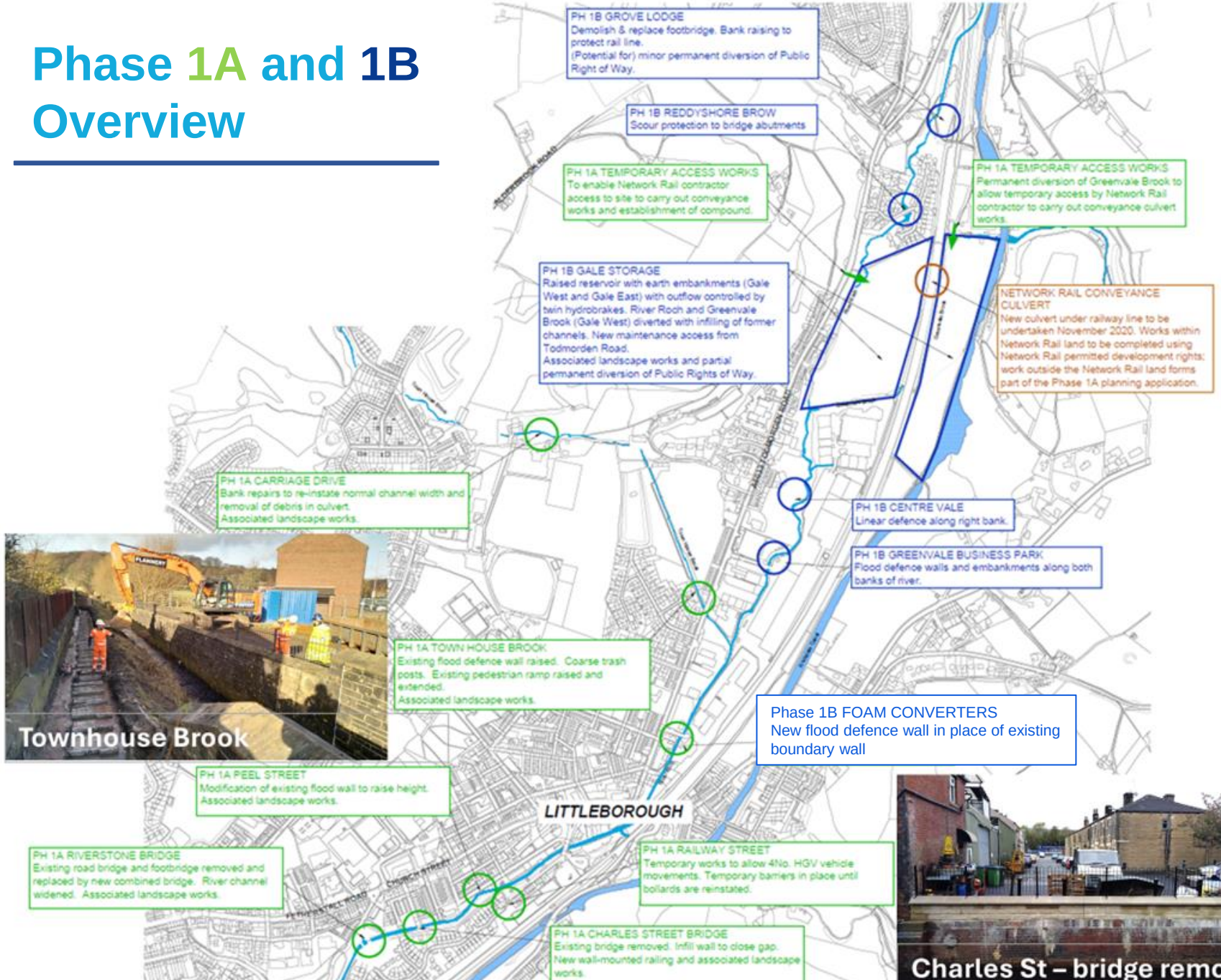
The Environment Agency are committed to delivering the scheme as quickly and as safely as possible and they will work closely with Rochdale Borough Council and other partners.

The map shows the locations of the different reach areas where works will be occurring.

Phase 1A was completed in early 2024 and Phase 1B of the works are currently in construction. Works were phased in this manner to enable safe working and to ensure that the scheme would work as a whole to reduce flood risk to Littleborough, once complete.



Phase 1A and 1B Overview



Townhouse Brook


Charles St – bridge removal


Riverstone Bridge - before


Riverstone Bridge - after

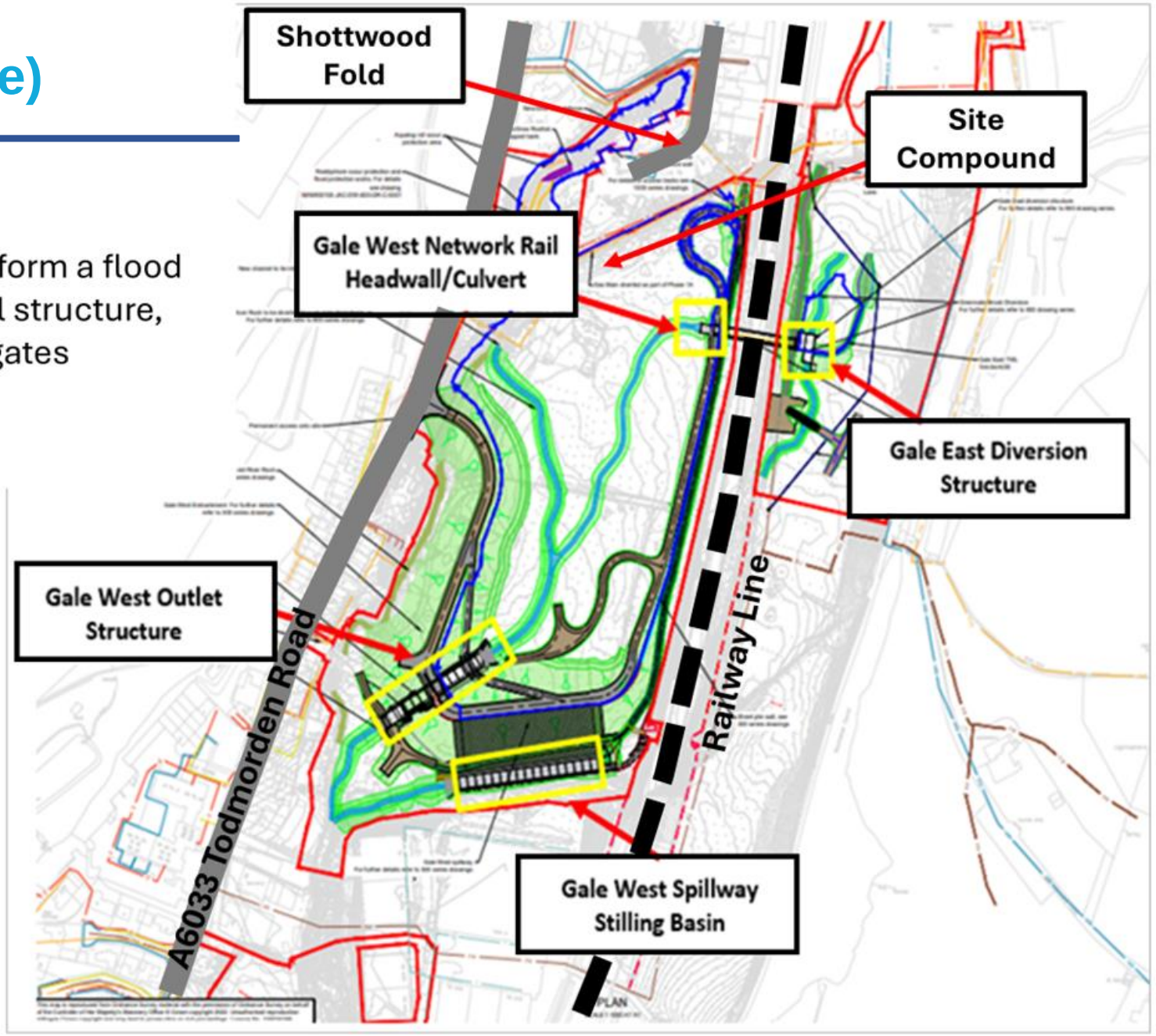
Phase 1B Design Details (Gale)

Gale West
Earth embankments and sheet pile walls to form a flood impounding structure, including flow control structure, access track, CCTV, telemetry, railings and gates

Gale East
Earth embankment and diversion structure to create a flood water impounding structure

Various flood defence improvements, erosion control, landscaping, habitat works etc.

Phase 1A and 1B combined
337 homes and 185 non-residential properties better protected from flooding



Phase 1B Design Details

Grove Lodge
Sheet pile flood defence wall to protect rail line.
Habitat enhancement (wetland and wet woodland) works.

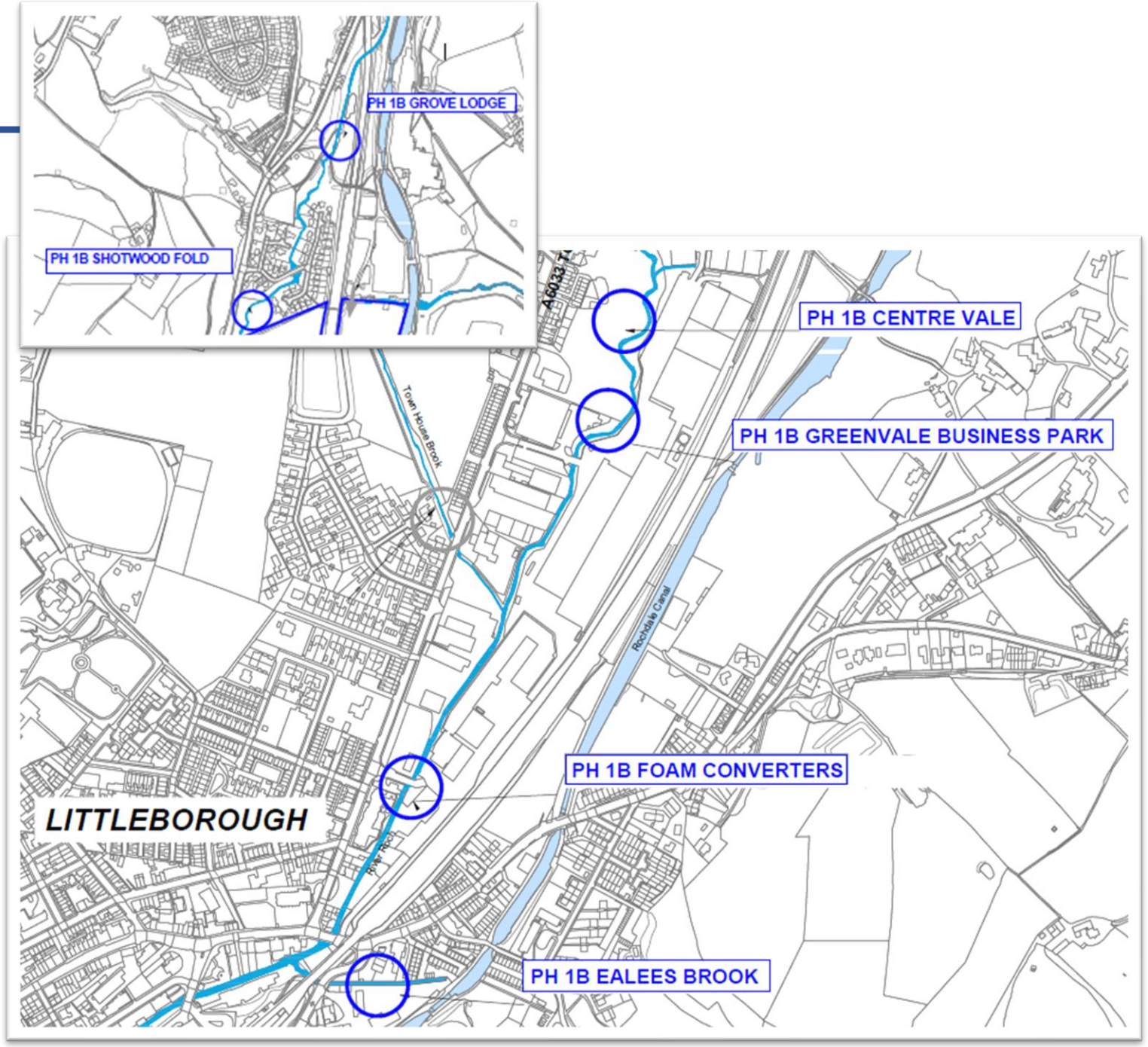
Reddyshore Brow/Shottwood Fold
Bank reinforcement works to private gardens.
Waterproofing of residential property walls.

Centre Vale
Earth embankments on right bank set back from the river. Habitat creation works.

Greenvale Business Park
Sheet pile flood defence walls along both banks of river. Concrete inlet structure upstream of bridge. Minor works to ramp into the river downstream of the bridge.

Foam Convertors
New flood defence wall in place of existing brick boundary wall.

Ealees Brook
Flood defence walls along left bank of river.
Waterproofing and strengthening building.



KEEPING LITTLEBOROUGH MOVING

The primary aim throughout the construction work is to ensure that Littleborough is kept moving.

The working areas will be compact, balancing the need to keep the contractors, the community and visitors to the area safe, minimising any disruption. Some footpaths will be temporarily closed whilst works take place in those areas, to keep people safe.

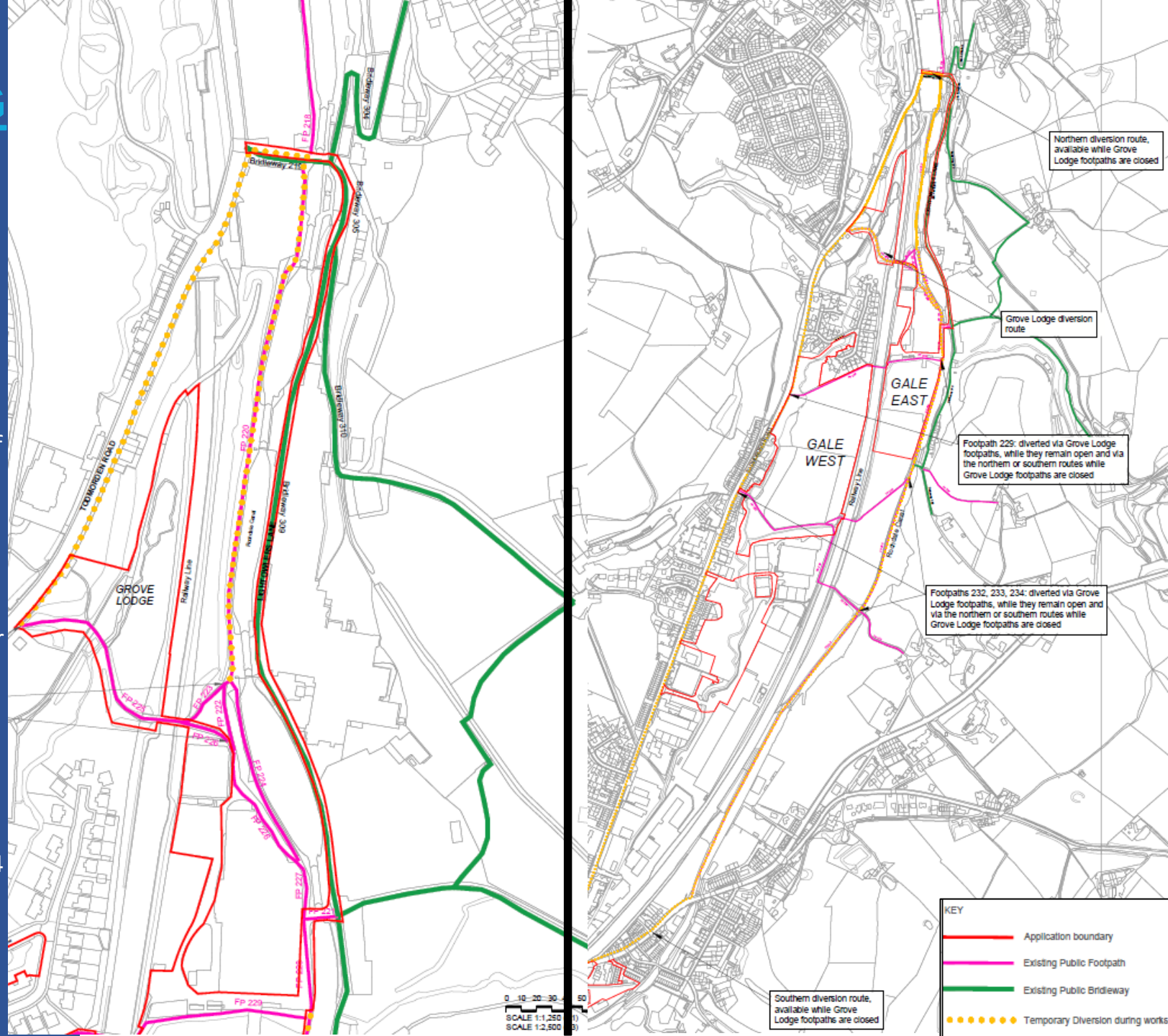
Footpath Closures are in place for the general safety of the public and site security and permissions are in place with the council *(dates are indicative only and subject to change, see Flood Hub for most recent updates)*:

Grove Lodge

- Footpaths 223, 225 and 226: Temporary closure for the duration of works in the Grove Lodge area. Closure period anticipated to be April 2024 - late 2024

Gale West & Gale East

- Footpath 232, 233 & 234: Temporary closure for the duration of works in the Gale East & Gale West areas. Closure period anticipated to be March 2024 -early 2027 inclusive
- Footpath 229: Temporary closure for the duration of works in the Gale East. Closure period from Gale West anticipated to be July 2024 –early 2025 inclusive



CARBON & SUSTAINABILITY

Carbon Reduction

The Environment Agency has carbon reduction targets for its capital schemes between initial business case and construction completion.

Our initial estimate of scheme carbon emissions was identified within our business case. This is termed the "carbon baseline".

We are working to reduce our carbon emissions through:

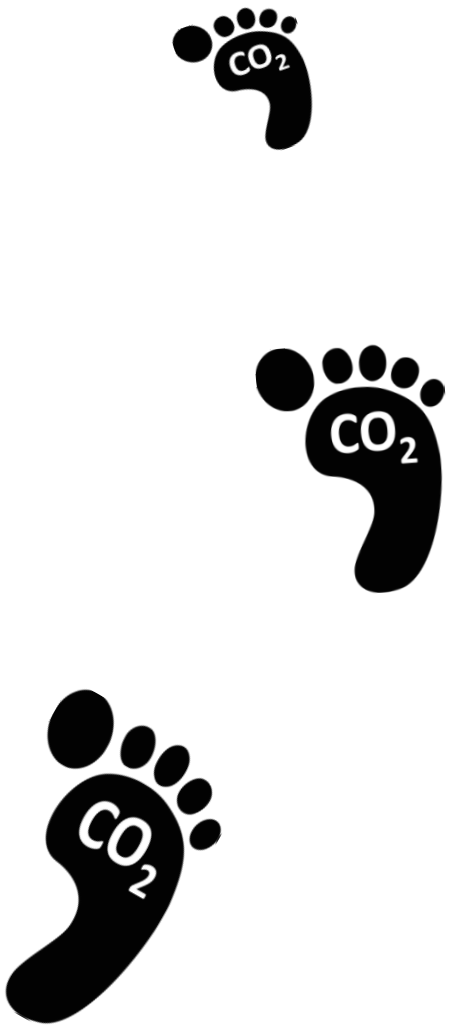
- Use of electric vehicles & solar powered site cabins
- Low carbon materials in our construction
- Optimisation of construction processes
- Material reuse where possible

Carbon decisions will be monitored and they will be re-calculating the schemes carbon emissions at regular intervals.

The Environment Agency have a plan to achieve the following three long-term goals:

1. a nation resilient to climate change
2. healthy air, land and water
3. green growth and a sustainable future

Find out more by searching for **'EA2025'**



KEEPING YOU INFORMED

Visit our online information hub at https://thefloodhub.co.uk/rochdale-and-littleborough/

Follow us on 'X' (Twitter) @EnvAgencyNW

Get in touch by Emailing: RochdaleAndLittleborough.FAS@environment-agency.gov.uk

Visit Rochdale Borough Council's website for flood risk information:
www.rochdale.gov.uk/flooding

Download the Volker Engage App

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