

This briefing is to provide you with a summary of progress on the Kendal Flood Risk Management Scheme and the resilience measures being taken to ensure our works are safe over the winter period.

We will update you on what the project has achieved to date, and what we intend to deliver early next year. It will also provide you with information on how you can find out more, and how you can engage with us as work continues.

What are we delivering as part of the Kendal Flood Risk Management Scheme?



6km of defences through the town of Kendal, using a combination of walls finished mainly in local stone, grass embankments, and sections of glass panels. With **more than half** of the defences **set back** from the riverside, **access to existing open space** and **riverside views** will be **retained** and **improved**.



At least **4000** trees will be planted within Kendal with a pledge of **15,000** to be planted within the Kent catchment, including a **variety of species**. **Larger, semi-mature** trees will be planted in places that are accessed the most. This is following a maximum of 500 trees in the town requiring removal, however we are working hard to reduce this number through ongoing detailed design.



At least **55 hectares** of **improved habitat for wildlife** and **recreational space** will be created for the community in **two** areas in Kendal at Beezon Fields and Mintsfeet, and in the **Upper Kent** catchment.



Minimal in river works will be undertaken during construction as the majority of our defences are **set back** from the rivers edge. Where we need to work within the river, we have, and will continue to work within the requirements of the permissions and consents to keep any environmental impact to a minimum.



Up to 3km of new and improved **riverside footpaths** will be **delivered**. The opportunity for a further **6km** of newly connected **walking and cycling trails** in the town is being explored.



The scheme is the stepping stone for a wider programme of **enhancements** to the town. Working in partnership we will support other potential improvements to the area for the **benefit of the local community** and **visitors**.

We are making good progress with the construction of the Flood Risk Management Scheme, which once complete will provide reduced flood risk to homes and businesses within Kendal from the Rivers Kent, Mint and Stock Beck.

We have completed all flood defences in the Southern end of Kendal with our works now focussing on the central areas of the town.

Kendal construction progress to date

Construction began in February 2021, with works completed in ten locations and a number of areas that continue to be in construction. The table below provides a summary of completed and in-progress locations.

Location	Construction type / activity	Community & environment improvements	Status
Dockray Hall	Improved foundations and strengthened existing flood wall	Footpath resurfacing with tree and shrub planting to provide improved riverside habitat.	Complete
Romney Gardens	Raised flood walls	Footpath resurfacing and shrub planting providing improved riverside habitat.	Complete
Natland Road/Ford Park	Raised kerbing and flood wall	Footpath resurfacing, new seating and extensive riverside planting of ornamental shrubs, seed mixes and trees.	Complete
Clarks	Raised flood wall	Restored a previously hard surface to grassland. Planted a mixture of trees and shrubs to the riverside.	Complete
Helsington and Watercrock	Raised flood embankments, flood walls and road raising	Resurfaced an existing car park and undertaken extensive planting of shrubs and trees. A further 1000 trees were facilitated and planted with the help of Kendal Conservation Volunteers.	Complete
Parish Church	Raised flood walls	New landscaped amphitheatre feature, newly resurfaced riverside footpath and new ramped access from Kirkland to the riverside. Tree and shrub planting is underway.	Complete
Waterside Flats	Raised flood walls and integrated flood gates	New ramped access to Waterside Flats and resurfaced riverside footpath. Tree and shrub planting is underway.	Complete
Busher Walk & Benson Green	Flood embankment and raised flood walls	New ramped access to riverside footpath and reinstatement of community flood gates.	Complete
Sand Aire House, Lambrigg Terrace and Melrose Place	Raised floodwall	The upstream section of the flood wall at Sand Aire House has been completed and work to complete the downstream section of the flood wall is now in progress.	In progress
Castle Street adjacent to Stramongate Bridge	Works to make riverbank repair ‘winter safe’	Temporary scour protection measures are in place. Construction works to recommence in 2023.	In progress
Beezon Fields (land opposite Busher Walk)	Landscaping a new environmental and public amenity area	Landscaping and tree planting is underway with the area planned for public opening in Summer 2023.	In progress
Aynam Road and Waterside	Service and utility diversions continue with in-river works made ‘winter safe’	Construction work in this area will recommence in Summer 2023.	In progress

Any operational features of the scheme such as floodgates will not be operated until the Kendal scheme is fully complete. This is because the flood scheme is designed for all of the reaches to work together.

We received planning permission in Summer 2019, however there have been some opportunities to review and adapt the original design of the Kendal scheme following engagement with our statutory consultees, the community, and a number of local interest groups. This has enabled us to maximise our design to retain riverside views in key locations within the town, preserve Kendal's heritage by incorporating a 'Webster' railing design, as well as accommodating the historic Washing Steps at Waterside and Jennings Yard Fountain.

The flood scheme in central Kendal will be predominately finished in natural stone which is sourced from a local quarry at Orton. We have two other imprinted concrete wall finishes, which will be mostly used in outer areas of the town. Glass panels will feature in three key locations at Waterside, Aynam Road and Gooseholme.



Kendal Flood Risk Management Scheme
Retaining views of the River Kent
Proposed tree planting after 5yrs growth

Webster railing design

The arched design of the historic 19th century 'webster' railing will replicate existing railings connected to Miller Bridge. These railings will create a new gateway onto a riverside walk along Aynam Road.



Kendal Flood Risk Management Scheme
Preserving and celebrating Kendal's heritage

This year we have made some significant design improvements to the scheme, namely along Aynam Road, Waterside and at Gooseholme. These improvements have required further planning approval from South Lakeland District Council.

Design improvements for Aynam Road and Waterside

We submitted a revised planning application for improvements to the Aynam Road and Waterside scheme design to South Lakeland District Council earlier this year, which received planning approval in August. The new scheme design will deliver a number of improvements namely; a revised piling foundation design to reduce the risk of groundwater flooding to properties, a working platform arrangement to construct the flood wall at Waterside as well as continuous glass panels which will retain riverside views.

Work this Summer started the construction of an 'temporary bridge', connecting Miller Fields at the northern end of Aynam Road to Waterside. The temporary bridge is an innovative approach to constructing the glass topped flood wall which will run along Waterside. The temporary bridge and working platform will enable the flood wall to be constructed from the riverside. This delivery method will reduce impact to residents and businesses in this area, and will protect vital services beneath the road along Waterside.

Designed to carry construction traffic, materials will be brought from Aynam Road across the bridge onto the working platforms. The slender design of the bridge with removeable handrails allows the structure to remain in situ without increasing flood risk.



Temporary in-river bridge crossing and working platform



Proposed finish of the glass topped flood wall along Waterside

We have made progress with the construction of the temporary bridge and working platform as river levels have been particularly low this summer. The bridge deck has been removed, will be stored off site over winter and will be reinstated in Summer 2023. With the River Kent being a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC) we need to work within flood risk and environmental regulations so we can protect both the community and the riverine environment from construction impacts.

Design improvements for Stock Beck Pumping Station and associated defences at Gooseholme

We submitted a revised planning application for improvements to Stock Beck Pumping Station and associated flood defences at Gooseholme earlier this year. If approved, the new scheme design will deliver a number of improvements to the Motor Control building, pumping station and the landscaping of the area. These improvements will also retain the open public amenity and enhance the biodiversity of the area through the addition of shrub and tree planting along the northern boundary of Gooseholme Park.

Ahead of any construction there are a number of activities which need to take place which include the re-location of street lighting and street furniture such as benches and bins from Castle Street and St George’s Walk. There will be a number of service and utility diversions required which will need to be carried out in the areas of Castle Street, Castle Crescent and St George’s Walk. These works are likely to take place in early 2023.



Kendal Flood Risk Management Scheme
Retaining views of the River Kent



Kendal Flood Risk Management Scheme
Reducing flood risk and improving public spaces

The scheme not only reduces flood risk to people and property, but will create additional lasting benefit for the community and the local environment. We plan to enhance the river corridor throughout the entirety of the scheme through extensive landscaping, planting and the integration of a number of public realm improvements and art features. Planting has started, with other features being installed over the winter period.

Once complete in Summer 2023, Beezon Fields will improve the amenity value of the area by the landscaping and the planting of a diverse range of trees, wildflowers, grasses and shrubs, as well as integrating a number of art and educational features.



Kendal Flood Risk Management Scheme





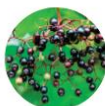









Delivering environmental enhancement and improved community amenities



Native trees will be planted in more rural locations on the edges of Kendal, e.g. Mintsfeet, Beezon Fields and Helsington Mills. These species will complement the natural setting of these spaces and provide an excellent resource for wildlife, providing food and shelter.

Both ornamental and native trees will be planted in town centre locations, including streets, parks and open spaces, e.g. Abbott Hall, Gooseholme Park and Aynam Road. Species will be selected that are appropriate in size and will provide seasonal interest.

TOWN EDGE TREE PLANTING



English Oak

Sessile Oak

Silver Birch

Alder

Aspen

Black Poplar

Wild Cherry

Goat Willow

Scots Pine

Grey Willow

Elder














Rowan

Bird Cherry

Blackthorn

Hawthorn

TOWN CENTRE TREE PLANTING



Great White Cherry

Scarlet Oak

Sargent's Cherry

Ornamental Pear

Swedish Whitebeam

Norway Maple

Honey Locust

Crimean Lime

Pin Oak

Dawn Redwood

Small Leaved

Cut-Leaved

Sweet Gum

Hornbeam

Resistant Elm

The large site at Mintsfeet is already a well-used riverside location by river users and walkers alike. We intend to enhance this area by integrating a number of new landscaping, art and educational features which will encourage greater access and use of the area by the community and visitors to the town. We will also integrate diverse planting to enhance the riverside habitat for wildlife. Works to construct the flood embankments around the boundary of the site will start in Spring 2023 followed by the landscaping of the area.

Key

TREES

- Proposed Native Feathered Tree
- Proposed Native Extra Heavy Standard Tree
- Proposed Native Woodland and Native Bult Planting Area, with Clover Understory Crop
- Proposed Native Security Shrub Planting Area
- Existing Tree Survey with Root Protection Zones. Retained trees to be protected through the duration of the project in accordance with the BS5837:2012 Arboricultural Method Statement and Tree Removal and Retention Plan.
- Existing Trees To Be Retained If Possible (Refer To Arboricultural Method Statement For Details)
- Existing Trees Removed Refer to Tree Removal and Retention Plans (SPD-TRP) For More Information

LANDSCAPE SURFACE TREATMENT

- Proposed Wet Wildflower Meadow
- Proposed Wet Grassland Meadow
- Proposed General Wildflower Meadow
- Proposed Cornflower Annual Meadow
- Proposed Orchard Clover Understory Meadow
- Proposed Amenity Grassland
- Proposed Managed Meadow
- Proposed Crushed Rock Access Track
- Proposed Slate Chipping Footpath
- Proposed Mowed Grass Footpath
- Proposed Informal Path

LANDSCAPE FURNITURE

- Reclaimed Timber Bench (Community Input Will Be Requested)
- Proposed Play Equipment Location (Community Input Will Be Requested)
- Proposed Reclaimed Timber Sculpture (Community Input Will Be Requested)
- Proposed Habitat Pile
- Proposed Reclaimed Timber Logs
- Proposed Site Information Board (Community Input Will Be Requested)
- Proposed Willow Tunnel

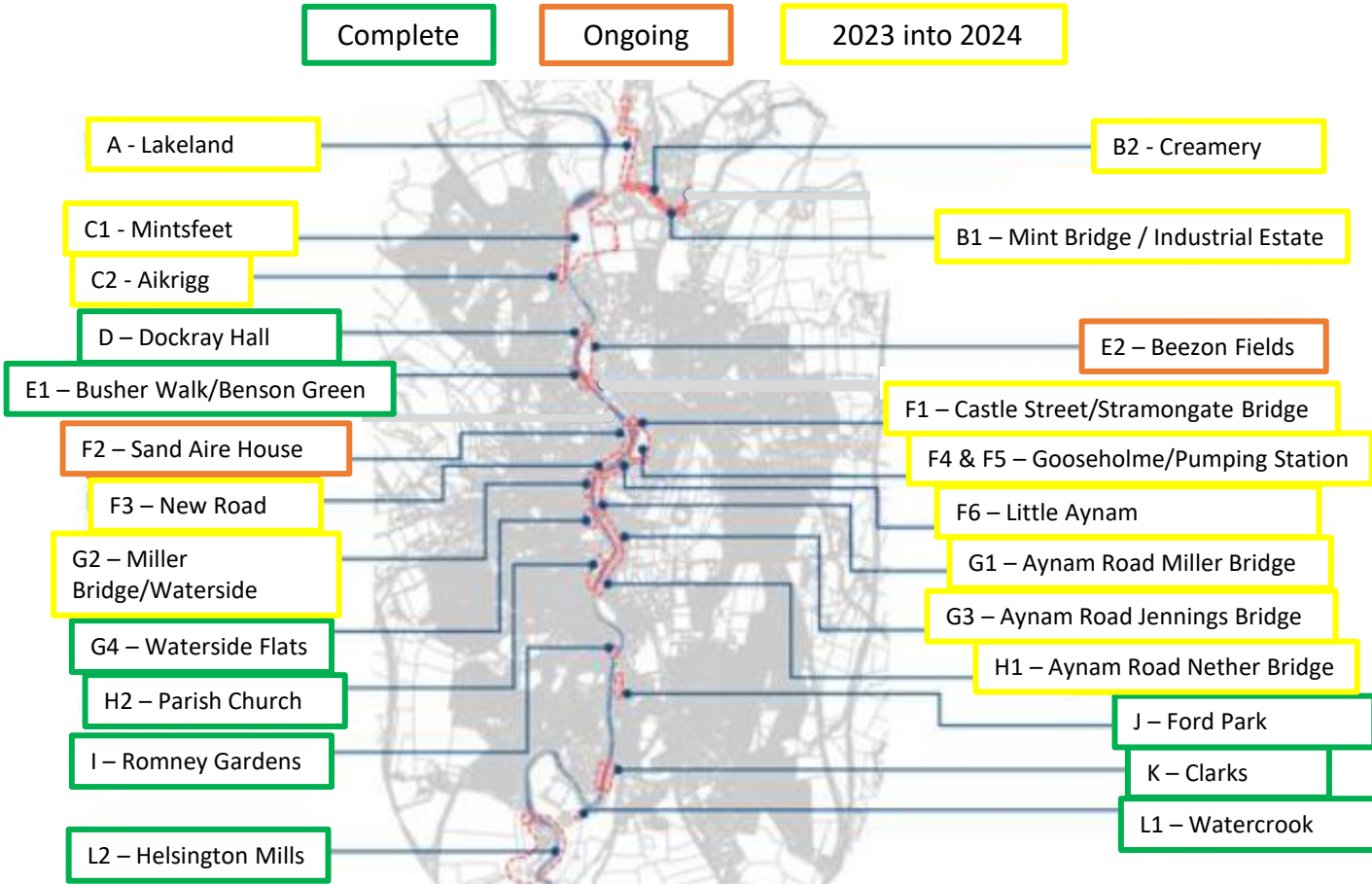
OTHER INDICATIVE INFORMATION

- Indicative Location of Invasive Plant Material (Japanese Knotweed). Exact Location to be Confirmed On Site.



Kendal scheme overview and delivery programme

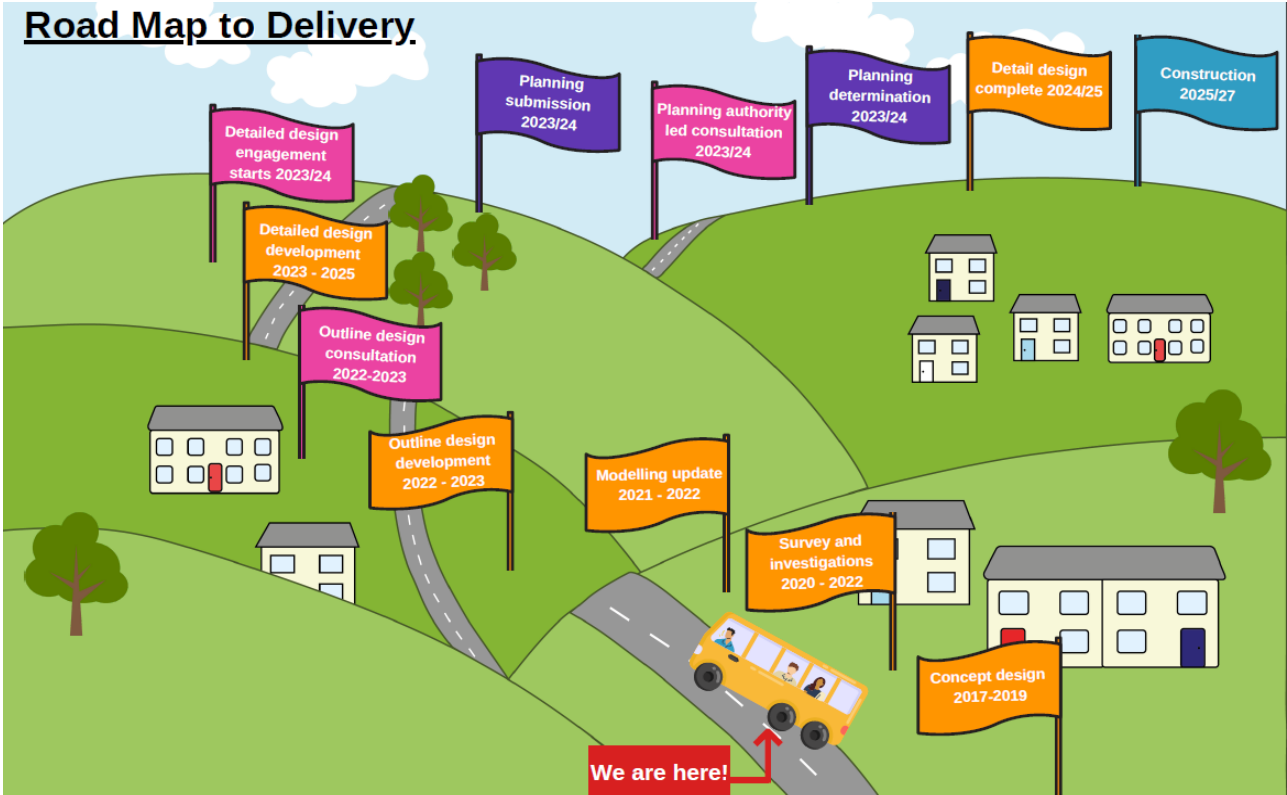
The Flood Risk Management Scheme runs from Helsington Mills in the South to Minsfeet in the North of the town. The complex nature of delivering a scheme of this size has led us to break down the scheme into a number of small sections we term as 'reaches'. The order of the works is influenced by minimising traffic and pedestrian movement within the town, whilst ensuring we manage flood risk. Construction completed, ongoing and programmed to start in 2023 are identified on the plan below.



Location	Construction Reach	Kendal Flood Risk Management Scheme Programme of Construction							
		2021	Winter/Spring 2022	Summer 2022	Autumn/Winter 2022	2023	2024	2025	
Helsington Mills	Reach L2		PART1 COMPLETE						
Watercreek / Scroggs	Reach L1		COMPLETE						
Clarks / Natland Road	Reach K		COMPLETE						
Ford Park	Reach J		COMPLETE						
Romney Gardens	Reach I		COMPLETE						
Parish Church	Reach H2		COMPLETE						
Waterside Flats	Reach G4		COMPLETE						
Waterside	Reach G2								
Aynam Road - Nether Bridge	Reach H1								
Aynam Road - Jennings Bridge	Reach G3								
Aynam Road - Miller Bridge	Reach G1								
Little Aynam	Reach F6								
Gooseholme Walls	Reach F5								
Gooseholme & pumping station	Reach F4								
New Road	Reach F3								
Sandraire House	Reach F2								
Stramongate / Castle Street	Reach F1								
Benson Green / Busher Walk	Reach E5		COMPLETE						
Beezon Fields	Reach E2		COMPLETE						
Busher Walk	Reach E1		COMPLETE						
Dockray Hall	Reach D		COMPLETE						
Aikrigg	Reach C2								
Jubilee Fields / Mintsfeet	Reach C1								
Mint Bridge - Creamery	Reach B2								
Mint Bridge - Industrial Est.	Reach B1								
Lakeland	Reach A								

This programme is accurate as of November 2022 and may be subject to change.

We are currently in the early design stages of the scheme for the communities within the upper Kent catchment. We are continuing with our surveys and investigations and will be shortly reviewing the modelling outputs which will inform development of the outline design of the flood risk management schemes for Burneside, Staveley, Ings.



To find out more about our road map to delivery visit www.thefloodhub.co.uk/upperkent

As we now have a greater understanding of the geography and underground geology within the Kent catchment following an extensive programme of surveys and investigations, we are now extending our understanding of the wider catchments of the Rivers Gowan, Sprint and Mint.

By extending our investigations and surveys we will be able to explore opportunities to better manage flood risk using a combination of measures such as Flood Storage and Natural Flood Management, as well as investing in projects which will enhance the quality of the riverine environment within the upper reaches.

A Scheme Vision will collectively collate ours, and others' understanding of the upper catchments, and where measures to manage flood risk and improve the environment provide the maximum benefits. The vision will also identify opportunities for further investment by us and others in the future.



We will be in a position to share scheme design progress and our Scheme Vision as part of our outline design consultation in 2023.

All information in relation to the flood risk management scheme can be found on our floodhub website www.thefloodhub.co.uk/kendal and www.thefloodhub.co.uk/upperkent

You can also keep up to date by downloading our Volkerstevin Engage Scheme App – see below. We provide daily updates on Kendal scheme progress.

Come and see us at our Information Hub located on Little Aynam, Kendal. We warmly welcome you to pop in, meet the team and have a look at our scheme information on a Tuesday and Thursday from 10am to 4.30pm.



Contact us

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VolkerStevin Engage

Our new project app allows you to keep up to date on the Kendal Flood Risk Management Scheme, view construction progress, images and provide feedback.



Keep up to date

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