

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



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**.



In **only a few** locations within central Kendal, in-river works will be undertaken during construction. This is due to the majority of our defences being **set back** from the river's 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.

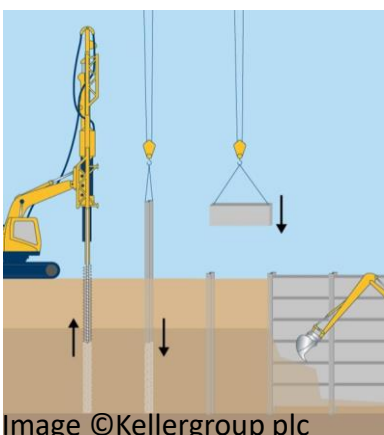


Kendal Flood Risk Management Scheme

Preserving and celebrating Kendal's heritage

Flood Wall Construction at Waterside

This Summer, we have completed our in-river works to construct a working platform within the river which is accessed by a temporary bridge crossing. The construction of the glass topped flood wall along Waterside will continue over autumn and winter and will be constructed from the riverside. The temporary in-river bridge is designed to carry construction traffic and materials. All construction traffic will be brought over the bridge from Aynam Road onto the working platforms at Waterside. We are constructing the glass topped flood wall from the riverside to maintain where we can, riverside access and protect vital services beneath the road along Waterside. One of our key activities this autumn and winter is piling. Piling is a method used to create a strong foundation for the flood wall which also reduces the risk of groundwater flooding to properties.



Piling method explained

- Continuous flight auger (CFA) piling rig drills hole in the ground to provide foundation
- 'H' shaped King post installed into auger hole and concreted in place
- Reinforced concrete panels inserted between the H beams to form river retaining wall up to ground level.
- Once completed the concrete panels are faced with stone.
- Above ground level a new reinforced concrete flood wall will be built and faced with stone

The temporary bridge and platforms are winter resilient. The slender design of the bridge and platforms are designed to be submerged during high river flows and will remain in place until the works are complete.



Temporary in-river bridge crossing and working platform



Proposed finish of the glass topped flood wall along Waterside

We work closely with our Independent Environmental Clerk of Works and water environment teams to ensure all of our works have minimal impact to the riverine environment. With the River Kent being a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC), all of our works have been through a flood risk and environmental consenting process. The Independent Ecological Clerk of Works has an active presence on site and monitors our construction work to ensure it is carried out safely.

Gooseholme flood wall and Stock Beck pumping station and outfall construction

We are now underway with a number of construction activities in the area of Gooseholme Common. We will be continuing with construction over autumn and winter within this area which include;

- Construction of the glass topped flood wall at Stramongate Bridge / Castle Street
- Removal of the existing kiosk which will be rebuilt to house the electrical equipment for the new underground pumps for Stock Beck
- Excavating an area which will house the underground pumps for Stock Beck
- Delivering the United Utilities sewer diversion
- Constructing the new outfall for Stock Beck into the river Kent
- Undertaking piling activities along St George's Walk which will create a strong foundation for the new flood wall and will reduce the risk of groundwater flooding.

The site compound will remain on Gooseholme Common for the duration of our construction works in this location. We have needed to secure a large area of the common to encompass our complete working area. This means all of our works will be contained within this area for the duration. The site compound is used to store materials and machinery required, as well as provide the room needed to construct the flood defences and associated infrastructure.



Temporary sheet piled cofferdam creating a dry working area for the construction of the new Stock Beck outfall.

As part of the site arrangement, we have several measures in place to ensure that in flood conditions should the river spill into Gooseholme, our construction machinery and materials can be moved, and flood protection to homes and businesses will be maintained to the current level.



Proposed stone clad walls at Gooseholme Common with flood gate retaining access



Proposed glass panel flood wall at Stramongate Bridge will retain riverside views

Beezon Fields is one of the locations which has been landscaped and opened this summer as a new improved public amenity area. We will be continuing to install a number of educational play, sensory path elements, seating, information boards and art features over winter and into spring.

This area has been planted with over 1000 new trees and over 5500 shrub plugs which will enhance the river corridor in this location aesthetically, and to the benefit of the riverside environment creating a diverse habitat for wildlife. It has been designed to meet a number of needs within the community, particularly Kendal schools who can access an educational space.



Kendal Flood Risk Management Scheme

Delivering environmental enhancement and improved community amenities



Our landscaping plans extend from Helsington Mills in the South to Mintsfeet in the North of Kendal. We are delivering in the areas we are working a diverse range of trees, plants, shrubs, wildflower and seed mixes throughout the scheme. Here is a snapshot of some of the tree species which will feature through the town. We will be delivering over 4000 new trees within the town and over 15,000 across the catchment.

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.



The large site at Mintsfeet located in the North of Kendal is already a well-used riverside location by river users and walkers alike. This summer, we have started works to construct earth flood embankments around the boundary of the site and have started extensive landscaping. Formalised footpaths are currently being constructed and will provide improved navigation and accessibility through the area. The riverside footpath is now largely complete and now open to the community.

Once the landscaping is complete next year, this site will offer new wetland areas, art and educational features, seating and a new native woodland. Planting will be a mix of formal and informal, with natural wildflower meadows creating a diverse habitat for wildlife.



New riverside footpath



Improved footpaths through the area

The main area of Mintsfeet will remain a construction site into 2024 and will remain closed off to the community. Planting will start to take place this winter into spring and a period of time for settlement and establishment will be required before fully opening up.

Kendal construction progress summary to date

We have been progressing well with construction since it began in early 2021, with works now completed in the majority of locations.

We have completed all flood defences in the southern end of Kendal with our works now focussing on the central and northern areas of the town. The table below provides a summary of completed and in-progress locations.

Location / Reach	Construction type / activity	Community & environment improvements	Status
Dale Farm Creamery	Raised flood wall	Landscaping will be completed once the construction works are complete. Native trees and wildflower mix will improve the riverside habitat.	In progress
Mintsfeet Nature Area	Raised flood embankments and creation of wetland areas	Extensive re-landscaping of the area which includes wetland creation, formal footpaths, shrub and wildflower planting, trees and native woodland. Benches, information boards and educational play and art features will also be included.	In progress
Dockray Hall	Improved foundations and strengthened existing flood wall	Footpath resurfacing with tree and shrub planting to provide improved riverside habitat.	Complete
Beezon Fields (land opposite Busher Walk)	Landscaping a new environmental and public amenity area	Landscaping and tree planting are completed with the area open for public. Benches, information boards and art and educational play features to be installed early 2024.	Complete
Busher Walk & Benson Green	Flood embankment and raised flood walls	New ramped access to riverside footpath and reinstatement of community flood gates.	Complete
Castle Street & Gooseholme Common	Raised flood walls, new Stock Beck pumping station and outfall	New amenity area created along Castle Street, Gooseholme common will retain its open space with boundary tree, shrub and wildflower planting. New pumping station will incorporate fish friendly design to enable migration within the system.	In progress
Stock Beck rehabilitation and catchment drain	Rehabilitation of the existing culvert system and catchment drain to take excess flood flows	Improved conveyance of the whole Stock Beck system.	Start in 2024
Sand Aire House, Lambrigg Terrace	Raised floodwall	Improved riverside access adjacent to Bridge Inn, tree and shrub planting and new raised decking area in the southern extent of Sand Aire House.	Complete
New Road & Melrose Place	Raised floodwall with flood gates	Flood wall around the roadside boundary of New Road will maintain an open space. 14 moveable planters will improve the visual aspect of the area and improve riverside habitat.	Start in 2024
Little Aynam	Raised flood wall tying into Gooseholme bridge and extending to Miller Bridge	Created a grassed amenity area on Little Aynam adjacent to the access to Gooseholme Bridge, resurfaced the road and footpaths and created additional roadside parking.	Complete
Waterside	Raised glass panelled flood wall from Miller Bridge to Edgecombe Court	Construction being delivered via the riverside to minimise impact to riverside users, residents and businesses. Glass panels will retain riverside views.	In progress
Waterside Flats	Raised flood wall with integrated flood gates	New ramped access for residents and improved planting and seating.	Complete
Parish Church	Raised flood walls	New landscaped amphitheatre feature, newly resurfaced riverside footpath and ramped access from Kirkland to the riverside. Tree and shrub planting improving habitat for wildlife.	Complete
Aynam Road	Raised flood topped with glass panels	New riverside walk from Miller Bridge to Jennings Footbridge, heritage 'webster' feature railings and improved tree, shrub and seed mix planting from Miller Bridge to Nether Bridge. Service diversions required ahead of construction starting.	Start in 2024
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 Watercrook	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

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.

Kendal Flood Risk Management Scheme

Contacting us and keeping up to date

We appreciate that the construction works being delivered through Kendal will have an impact on the local community and we thank you for your continued patience.

If you would like to talk to us, or keep up to date on progress, there are many ways you can do this. Information on how you can get in touch, or where to find information is provided below.

Visit our online information hub at www.thefloodhub.co.uk/kendal

Follow us on Twitter @EnvAgencyNW

Get in touch by emailing kendalFRMS@environment-agency.gov.uk

Contact us on 03708 506 506



Come and see us at our **Flood Scheme Information Hub** located at Little Aynam, Kendal, LA9 7AH. Open every Tuesday and Thursday 10am to 4.30pm.



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. Scan the QR code to download.



Be winter ready

It is important that you are prepared and know what to do if flooding threatens. We encourage you to take 4 simple steps:-

1. Sign up to the Flood Warning Service to receive free flood warnings
2. If you have household flood barriers, check these are in working order
3. Know what to do when a flood warning is issued. Have a flood plan
4. Keep an eye on the situation. You can view at 5 day weather forecast and monitor river levels online at <https://flood-warning-information.service.gov.uk/> and www.metoffice.gov.uk/public/weather/

Further information is available on our website www.gov.uk/flood or by ringing Floodline on 0345 988 1188.