

Kendal and Upper Kent Catchment Flood Risk Management Scheme

Young Spring Proposed Flood Embankment - Reach L3
Planning Application - Engagement pack

December 2024



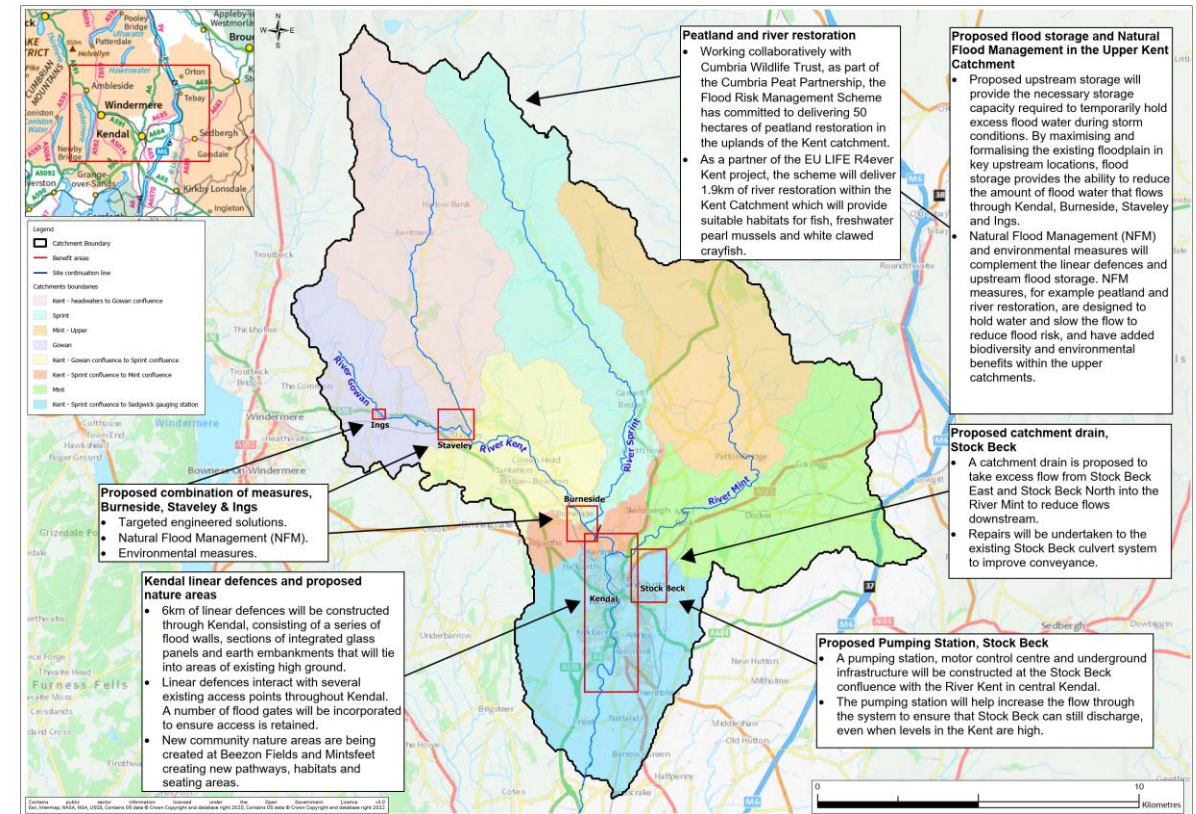
Contents



• The Kendal and Upper Kent Flood Risk Management Scheme	3
• Flood History	4
• The existing site	5
• The proposed scheme	6
• Landscaping	10
• Environment	11
• Engagement and consultation	12
• Construction	15
• Programme of works	17
• Further information	18

The Kendal and Upper Kent Catchment Flood Risk Management Scheme

- Following Storm Desmond in December 2015, the Environment Agency (EA), key partners and the local community worked together to identify options that seek to better manage flood risk across the Kent Catchment.
- Each potential flood risk option is assessed against the Environment Agencies key tests: to ensure they are economically viable, technically feasible, environmentally sustainable, socially acceptable, and safe to deliver.
- Through this process 60 initial options were reduced to a shortlist, resulting in a preferred option. This culminated in the development of the Kendal and Upper Kent Catchment Flood Risk Management Scheme (KFRMS).
- Consent for Phase 1 of the flood risk management scheme was granted on the 28 June 2019. This gave permission for the development of linear defences (including new and raised flood walls and embankments), ground raising, a pumping station, and public realm and landscape improvements at various sections of the Rivers Kent and Mint, known as 'Reaches'.
- Phase 1 of the KFRMS is nearing construction completion, with the EA considering the wider upstream measures to be taken forward in the next phases of the project.
- As part of the approved Scheme, the EA has planning permission to undertake flood risk management works to improve the resilience of the area at Helsington Mills to the south of Kendal. This section of the Scheme is known as Reach L, which comprises Reach L1 Watercrock Lane, and Reach L2 Helsington Mills.

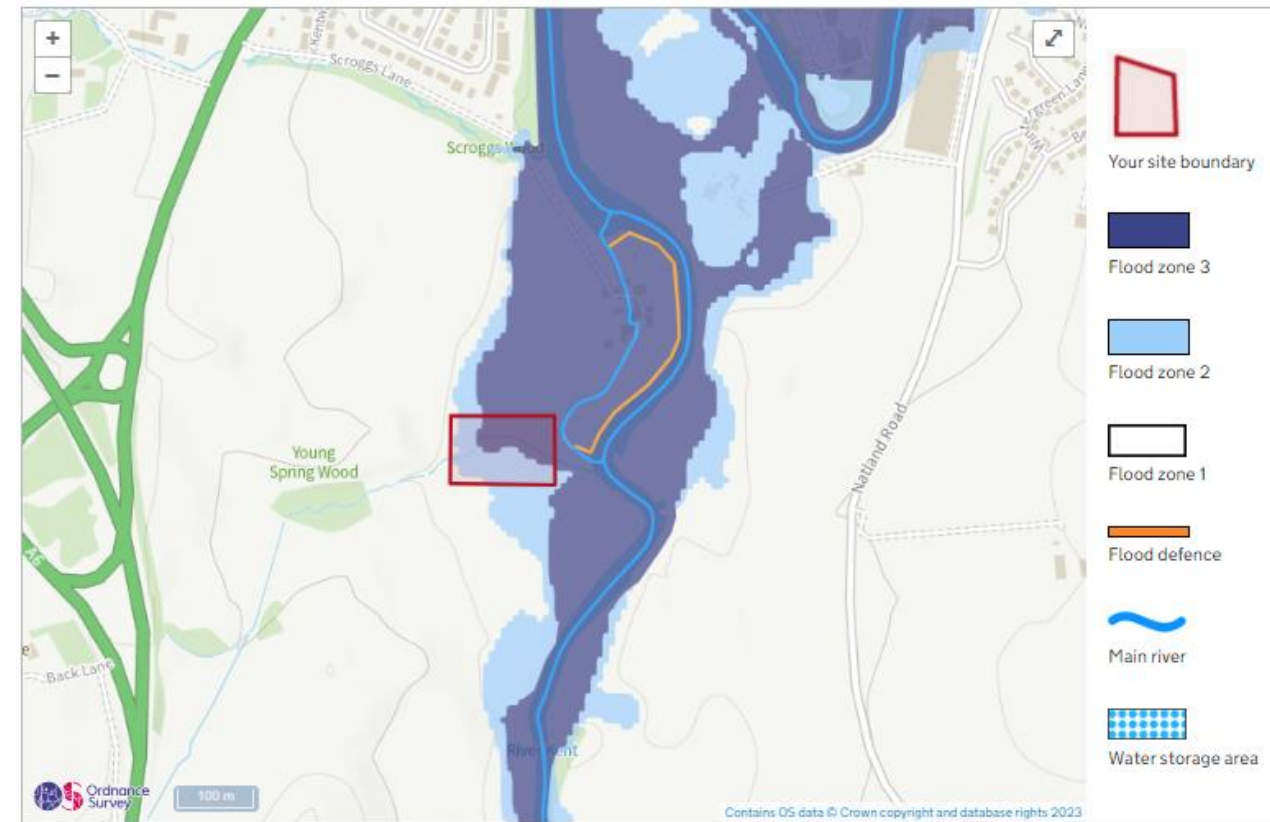


Kendal and Upper Kent Flood Risk Management Scheme measures

- This standalone planning application seeks approval from Westmorland and Furness Council (WFC) for the modification and extension of the approved embankments at Young Spring (Reach L3), to the southern end of the proposed development (Reach L).

Young Spring Flood Embankment – flood history

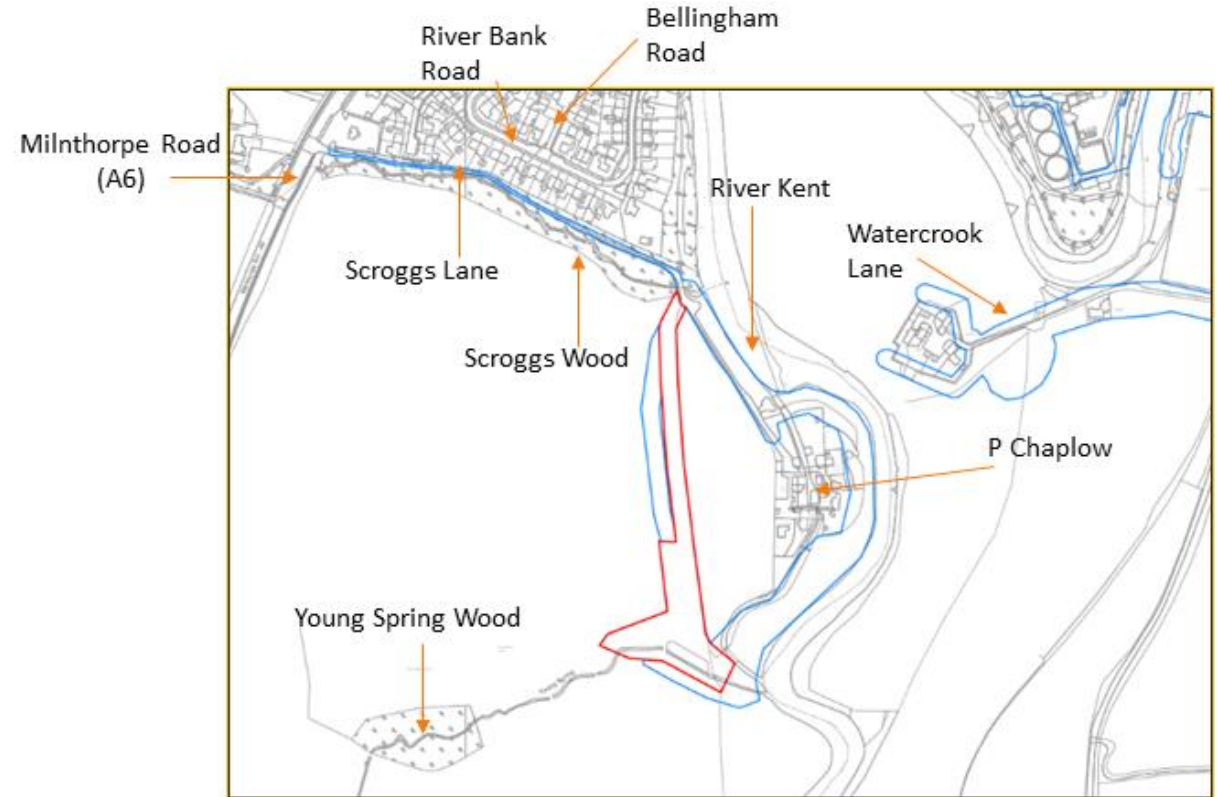
- Lying in the floodplain of both the River Kent and River Mint, Kendal has a long history of flooding, with the most recent event being Storm Desmond in 2015.
- Existing flood risk management measures, comprising Stock Beck Flood Storage Basin and culvert system, provide varying levels of resilience throughout the town, with some areas offering as little as a 1 in 5 year flood event.
- Despite these measures, national flood risk modelling indicates that both the north and centre of the town remain at risk of flooding during storm events.
- Further to approval of the Scheme, additional evidence and data gathered has shown that the design of the consented Scheme at Reach L does not have sufficient capacity during a flood event, potentially resulting in overtopping of the banks at Young Spring and overland flows towards Helsington Mills.
- A redesign including an extension of the approved embankments outside the original red line boundary for the consented Scheme has therefore been undertaken.



Environment Agency Flood Zone Mapping for the area surrounding Young Spring, Reach L3

Young Spring Flood Embankment - the existing site

- The proposed development site is located to the south of Kendal Town Centre, along Young Spring, a tributary of the River Kent.
- Young Spring lies within the political boundaries of:
 - Helsington Civil Parish
 - Bowness and Levens Ward
 - Kendal Town Council, and
 - Westmorland and Furness Council.
- Young Spring is designated as ordinary watercourse. It does not have the same designations as the River Kent, which is a Site of Scientific Interest (SSSI) and Special Area of Conservation (SAC).
- Helsington Laithes Mill, a Grade II listed building (reference 1145746) is located approximately 140m to the east of the proposed development site. A public right of way (PROW) (footpath 530013) runs through the eastern boundary of the proposed access track, connecting Scroggs Lane to the River Kent in the south.



Extract from Drawing ENV0000489C-JAC-ZZ-DR-PL-0110 Red Line Boundary (Blue line denotes the red line boundary of the June 2019 consented Scheme)

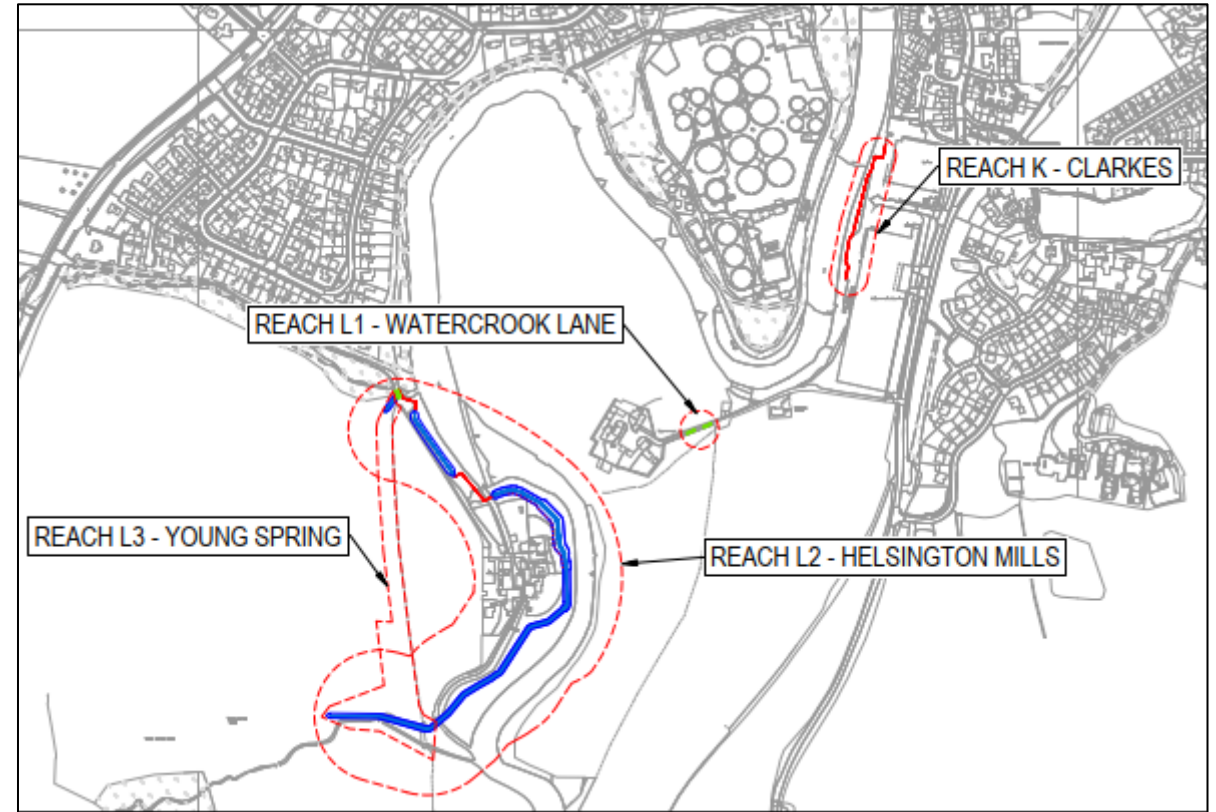
Young Spring Flood Embankment – the proposed scheme

- The Environment Agency were originally granted Planning consent in June 2019 to undertake flood risk management work and improve resilience of the area at Helsington Mills, located to the south of Kendal (also known as Reach L3 Young Spring).
- Helsington Mills was the fifth section of the Kendal Flood Risk Management Scheme to be completed and includes:
 - approximately 376m of linear flood defences comprising of walls, embankments and sections of road raising
 - improved surfacing to the car park at the bottom of Scroggs Lane
 - planting of an additional 1,000 trees providing multiple environment and community benefits, working with Kendal Conservation Volunteers.



Young Spring Flood Embankment – the proposed scheme

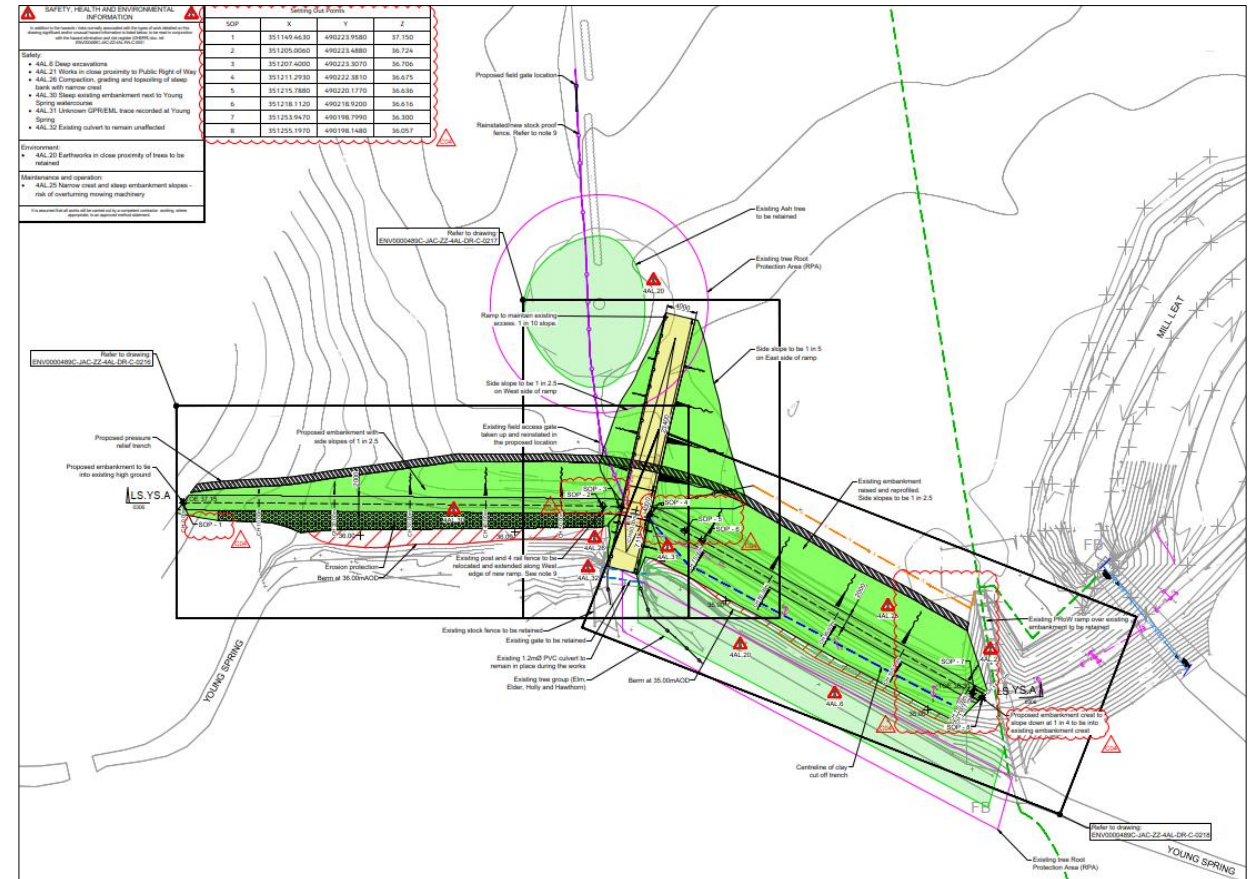
- Following construction, data gathered has shown that additional flood protection is required due to the existing topography of the western field.
- A second stage of the scheme has been designed to address flood risk from Young Spring, which includes raising and extension of embankments approved as part of the original scheme, beyond the red line boundary. This will involve:
 - Raising the consented flood defence embankment by approximately 0.5m, to form a new embankment with 2.0m wide crest and 1:2.5 side slopes;
 - Extending the consented flood defence embankment to tie into high ground, aiming to deflect any overland flows back to the Young Spring watercourse;
 - Installation of a pressure relief drain on the defended side of the embankment, consisting of gravel drainage material
 - Installation of a temporary access track for construction; and
 - Landscaping.



Extract from drawing ENV0000489C-CAA-00-4A0-DR-C-0109

Young Spring Flood Embankment – the proposed scheme

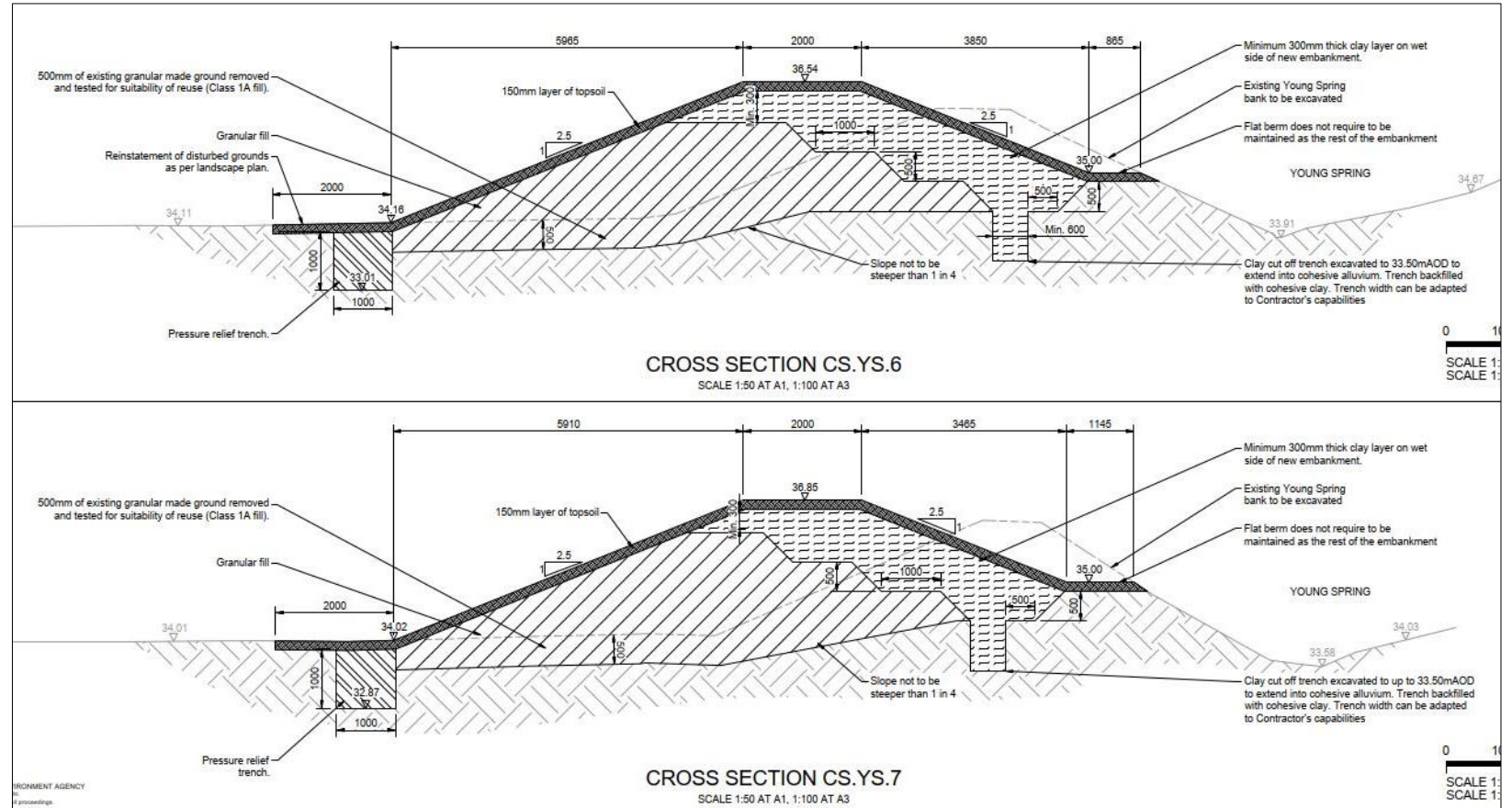
- The proposed development will include constructing approximately 114m of clay embankment to form a flood defence that will run parallel to the Young Spring watercourse.
- The original flood defence embankment will be raised at its southern extent by approximately 0.5m and by approximately 2m above the existing ground level. The embankment will be reprofiled to form a 2.0m wide crest, with 1:2.5 side slopes and will tie into the existing embankment, and Public Right of Way (PROW) to the east.
- The original flood defence embankment will be extended to the west at a height of approximately 1m above the existing ground level, and will tie into high ground to deflect any overland flows back to the Young Spring watercourse. Side slopes will be reprofiled to 1:2.5 and an erosion protection berm at 36.00m AOD on the riverward side of the embankment face will consist of grassland with a Salix Vmax Erosion Control Mat.
- The downstream riverward side of the embankment face and crest will be raised with cohesive fill material. Non-cohesive granular fill will be used on the defended side of the embankment face. The upstream section of the embankment will be constructed with a homogenous cohesive fill.
- Surfaced with a Type 1 aggregate material topped with 6mm to dust limestone, the access ramp over the existing embankment will be retained, maintaining access from one side of the Young Spring watercourse to the other. The ramp will remain at a slope of 1:10, with a side slope of 1:2.5 on the west side and 1:5 on the east side.



Extract from Drawing ENV0000489C-JAC-ZZ-4AL-DR-C-0105 (General Arrangement)

Young Spring Flood Embankment – the proposed scheme

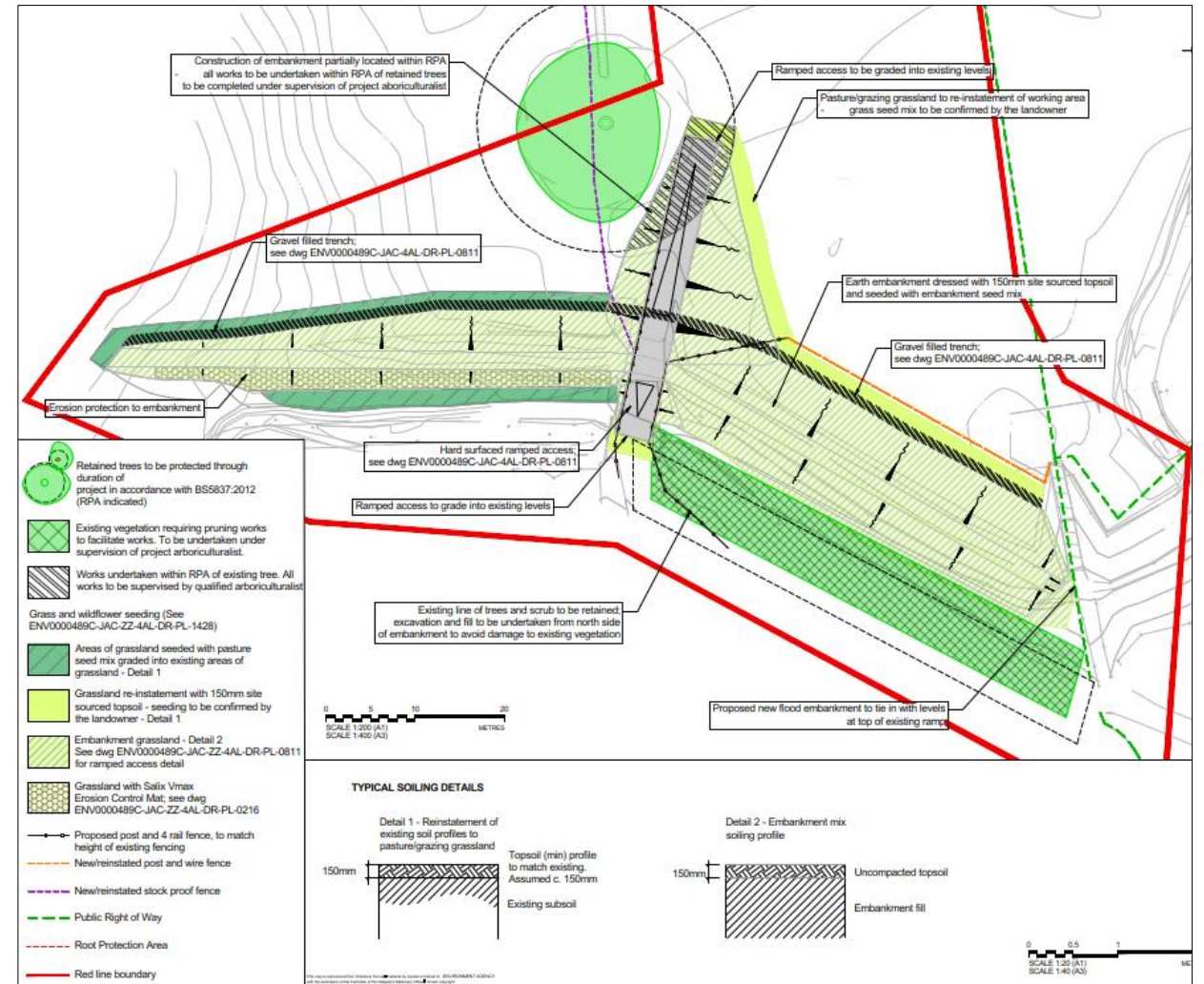
- A pressure relief trench will be installed on the defended side of the embankment, consisting of a gravel filled trench which will extend to the glaciofluvial layer. The trench will work with existing ground conditions and provide stability to the embankment during a flood event.
- The trench would capture any surface water that was to gather at the bottom of the slope and allow it to infiltrate within the underground layers (glaciofluvial deposits) beyond the existing solid material. The trench may provide an infiltration path but is not connected to and does not drain into Young Spring.



Extract from Drawing ENV0000489C-JAC-ZZ-4AL-DR-PL-0218 (Asset Plan and Cross Sections Sheet 3)

Young Spring Flood Embankment – landscaping

- The proposed development site is predominately covered by pasture grassland.
- After construction, the temporary access tracks will be removed and the existing areas of grassland reinstated.
- As shown, Tree 0269 (ash) and Tree Group 0075 (elm, elder, holly and hawthorn) detailed on the approved tree removal and retention plans will be retained as the consented Scheme.



Extract from Drawing ENV0000489C-JAC-ZZ-4AL-DR-PL-1427 (Landscape General Arrangement and Details)

Young Spring Flood Embankment – environment

- The proposed development site is comprised primarily of agricultural land used for livestock grazing, separated by hedgerows with a single mature tree and Young Spring watercourse running west to east.
- There are two minor tributaries within the study area associated with the River Kent; Young Spring ordinary watercourse (located within the proposed development site), and Scroggs Lane ordinary watercourse (located approximately 8m to the north). The mill race that passes through Helsington Laithes Mill is considered to be part of the River Kent.
- A Habitats Regulation Assessment (HRA), Biodiversity Protection Plan, a detailed Ecological Impact Assessment (ECiA) and species survey report(s) for bats, otters and badgers, as well as a Flood Risk Assessment, have been prepared and accompany the planning application.
- Following the implementation of embedded and additional mitigation measures (for example, a silt fence and biosecurity equipment) there are no residual adverse effects expected on ecology, the River Kent Special Area of Conservation (SAC) cultural heritage, archaeology or air quality during construction or operation of the scheme.
- The proposed development has the potential to deliver beneficial effects for biodiversity following the implementation of Biodiversity Net Gain (BNG) and the adoption of any enhancement opportunities.



Existing area of western side of works, and the northern bank of Young Spring on the right of the watercourse



Existing area of eastern side of works, and the northern bank of Young Spring on the left of the watercourse (the southern bank is tree lined).

Young Spring Flood Embankment - engagement and consultation

- Stakeholder engagement and consultation forms a critical component of decision-making in the development of the Kendal and Upper Kent Catchment Flood Risk Management Scheme (FRMS).
- The benefits of pre application engagement are set out within the National Planning Policy Framework (NPPF) published in December 2023. Paragraph 39 states: ‘Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre application discussion enables better coordination between public and private resources and improved outcomes for the community’.
- The overarching aim of our engagement and consultation on Young Spring Flood Embankment is to ensure that directly affected stakeholders are engaged at a formative stage, early in the design process, when they have an opportunity to be actively involved and influence the scheme design of potential flood storage areas.
- In line with Gunning principles 1, 2,3, and 4, we aim to demonstrate that our approach to engagement, consultation and communications is delivered at the right time, is fair and above all, meaningful. In addition, engagement and consultation is carried out in accordance with the latest Government and local policy and guidance, including Westmorland and Furness Council’s Statement of Community Involvement (SCI) adopted by.

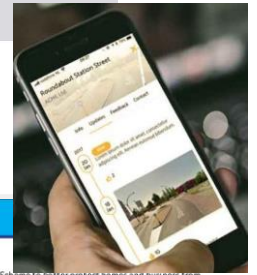
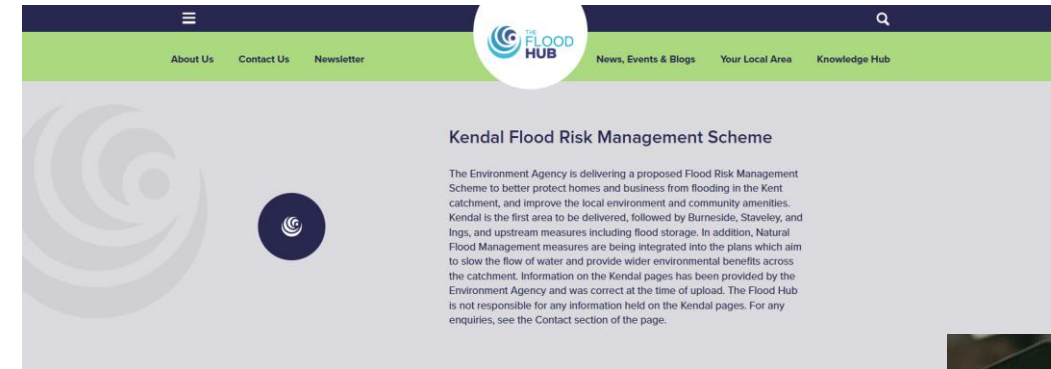
Gunning principle		Our commitment
1	that consultation must be at a time when proposals are still at a formative stage;	Our consultation will be carried out at a point when a final decision on the design of the Kent Catchment Flood Risk Management scheme has not been made or pre-determined by the decision makers
2	that the proposer must give sufficient reasons for any proposal to permit of intelligent consideration and response;	The information we provide will relate to the consultation and tell the story of the Kent Catchment Flood Risk Management Scheme. It will be available, accessible, and easily interpretable enabling consultees to provide an informed response.
3	that adequate time is given for consideration and response; and	We will provide sufficient opportunity for consultees to participate in the consultation. There is no set timeframe for consultation, despite the widely accepted twelve-week consultation period. The length of time given for consultees to respond will be relative to the size of the scheme and extent of impact of the consultation
4	that the product of consultation is conscientiously taken into account when finalising the decision.	We will demonstrate how we took consultation responses into account.

Young Spring Flood Embankment - engagement and consultation

- The purpose of our engagement and consultation with key stakeholders and directly affected landowners is to:
 - Create shared understanding of the scheme
 - Work directly with stakeholders to ensure their interests, concerns and aspirations are consistently understood and considered
 - Gather feedback on the design of the proposed flood embankment, helping to develop alternatives, or identify a solution as required
 - Provide real opportunities for those directly affected to have an influence as a result of their involvement
 - Provide sufficient information, and time for full consideration and response from the stakeholder and design team
- The Environment Agency is committed to continuous engagement and consultation from the evolution of the original scheme to the initial design and development of the proposed flood embankment. Ongoing since 2023, engagement on Young Spring (Reach L3) has been and continues to focus on:
 - Residents of Helsington Mills;
 - Natural England;
 - Kendal Town Council,
 - Westmorland and Furness Council, and
 - Landowners, including the Woodland Trust.
- Methods include:
 - landowner engagement meetings (face-to-face on site/virtual)
 - scheme updates via newsletters (hard copy/email) and information on the Kendal Flood Hub website
 - letters/phone calls/email
 - information displays in the Kendal Drop-in Information Hub
 - publication of a pre-application engagement pack on the Flood Hub website: <https://thefloodhub.co.uk/kendal> and <https://thefloodhub.co.uk/upperkent>
- Landowners have been consulted regularly, particularly to inform the access arrangements and Biodiversity Net Gain (BNG) assessment.
- The Environment Agency has sought to collaborate on the proposed development to minimise the impact of the works in terms of design and particularly the landscaping of the flood defence structures to minimise the visual impact and ensure access is maintained.
- In addition, face-to-face meetings have been offered to Kendal Town Council at key milestones throughout the scheme's development, however no meetings have taken place to date.

Young Spring Flood Embankment - engagement to date

- Our approach with the wider public aims to raise awareness of the Flood Risk Management Scheme, keeping them up to date with progress on the scheme's development throughout. In addition, we continue to raise awareness of the scheme and engage with politicians, and specialist interest/local groups, such as local Flood Action Groups, and the Kentmere Flood Liaison Group.
- The purpose of our engagement and communications here is to:
 - Provide the wider public and those interested with balanced, objective information
 - Help them understand the purpose of the flood risk management scheme, providing an overview of the design development process (for example, early ground investigations and surveys), our road map to delivery (timescales) and provide a broad overview of potential solutions.
 - Methods include direct access to the team through the Flood Scheme Information Hub, an online FloodHub information resource, information boards, newsletters, presentations, VolkerStevin Engage App, and non-technical summaries, as well as utilising local communication channels and networks.



Kendal and Upper Kent Catchment Flood Risk Management Scheme
Stock Beck culvert rehabilitation project | Update | August 2024

The Environment Agency is delivering a Flood Risk Management Scheme (FRMS) to better protect homes and businesses from flooding in the Kent Catchment, enhance the local environment and improve community amenities.

Building on the surveys and investigations carried out last year we are starting a programme of rehabilitation works, aimed at improving conveyance throughout Kendal, as well as managing excess flows to reduce the risk of flooding. This update is to provide you with a summary of the works.

Stock Beck overview
Stock Beck comprises of several sections of watercourse that originate in farmland before entering the eastern side of Kendal. The watercourses converge and are joined by connections from surface water drains. The combined flows pass through largely culverted sections within the urban area and outfall into the River Kent in the town centre, near Gooseholme Park.

As part of the Kendal and Upper Kent Catchment Flood Risk Management Scheme we will address the flood risks associated with Stock Beck, and design improvements which will manage water within the catchment more effectively. A combination of measures will be used to improve the conveyance of Stock Beck through the town, as well as managing excess flows to reduce the risk of flooding.

Rehabilitation works are being carried out to maintain the flow through existing culverts located along Stock Beck, together with construction of a new pumping station at Gooseholme, and a proposed catchment drain to the Northeast of Kendal.

Culvert rehabilitation works
Works are required to replace and rehabilitate a number of sections of the Stock Beck culvert system in the areas of Calder Drive, Sandylands Road, Rusland Park, Auction Close, Silverdale Drive and Gavel Court. Our specialist contractor 'OnSite' will carry out the work.

This work is due to commence from 5th August for approximately 16 weeks. Whilst the majority of work will be undertaken in the highway, we will require temporary access to some residents' gardens and/or driveways. Those affected will be notified prior to the work, and traffic management put in place where required. Any inconvenience caused will be kept to a minimum.

Environment Agency | Jacobs | VolkerStevin

Kendal Flood Risk Management Scheme

European Union European Regional Development Fund
In association with E&R Properties as landowner

Scheme overview
The Environment Agency is delivering a Flood Risk Management Scheme to better protect homes and business from flooding in the Kent catchment, and improve the local environment and community amenities. Kendal is the first area to be delivered, followed by Burneside, Staveley, and Ings, and upstream measures including flood storage.

Plan of flood defences and finishes

What have we done?
This section of flood defence involved the repair and strengthening of the existing stone wall. New coping stones have been installed, as well as works to the footings to stop the seepage of water through the base of the wall.

Environmental and wildlife benefits

Two Goat Willow trees (Feathered trees)

- Supports lots of wildlife including the elusive and regal purple emperor butterfly
- Provides the early source of pollen and nectar for bees and other insects
- Habitat for caterpillars and moths
- Foraging benefits for birds
- An ideal species for this location as it thrives in damper more open ground near rivers, lakes, streams and canals.

Three Alder trees (Extra heavy standard trees)

- A food plant for caterpillars and several moth species
- Provides the early source of pollen and nectar for bees and other insects
- The seeds of this tree are eaten by a number of bird species such as the pigeon, redpoll and goldfinch
- The root systems provide perfect nest sites for otters
- An ideal species for this location due to its durability and strength, particularly when planted in or near water.

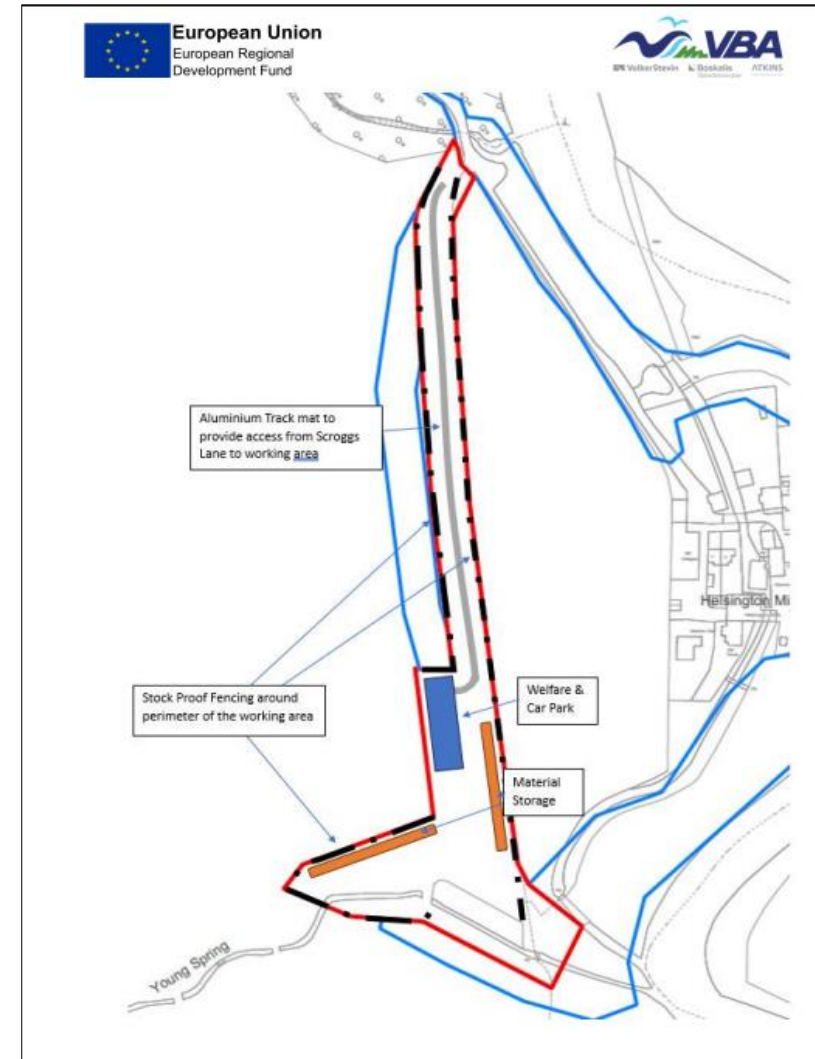
Community improvements
As part of the works the footpath has been fully resurfaced.

Landscaping
We will be undertaking some landscaping works in Autumn which is ideal planting season. Five new trees will be planted in this area.

www.the floodhub.co.uk/kendal @EnvAgencyNW | Environment Agency | CAPITA Jacobs | VBA | KendalFRMS@environment-agency.gov.uk 03708 506 506

Young Spring Flood Embankment – construction

- All construction will be undertaken from the dry side of the defences.
- There will be no in-river works.
- Approximately 114m of the downstream section of the embankment will be raised with cohesive material on the riverward side of the embankment face and crest.
- Non cohesive granular will be used to raise the defended side of the embankment face.
- The upstream section of the embankment will be a homogenous cohesive fill construction.
- A reinstated ramp over the embankment will maintain access from north to south over Young Spring watercourse. The ramps are proposed to be surfaced with a Type 1 material topped with 6mm of dust limestone. The existing culvert underneath the access will be retained.
- A temporary working area and haul road will be required. Access to the proposed development site will be taken from Scroggs Lane. Removed following construction, the temporary haul road will consist of an aluminium trackway, minimising impact, removal requirements and reducing timescales.
- Construction materials will be delivered to the site compound on an as required basis using the preferred delivery route, as per the Construction Traffic Management Plan (CTMP).
- The compound will consist of portacabin-style units. Mini welfare facilities will be provided at Gilthwaiterigg Lane.



Site layout

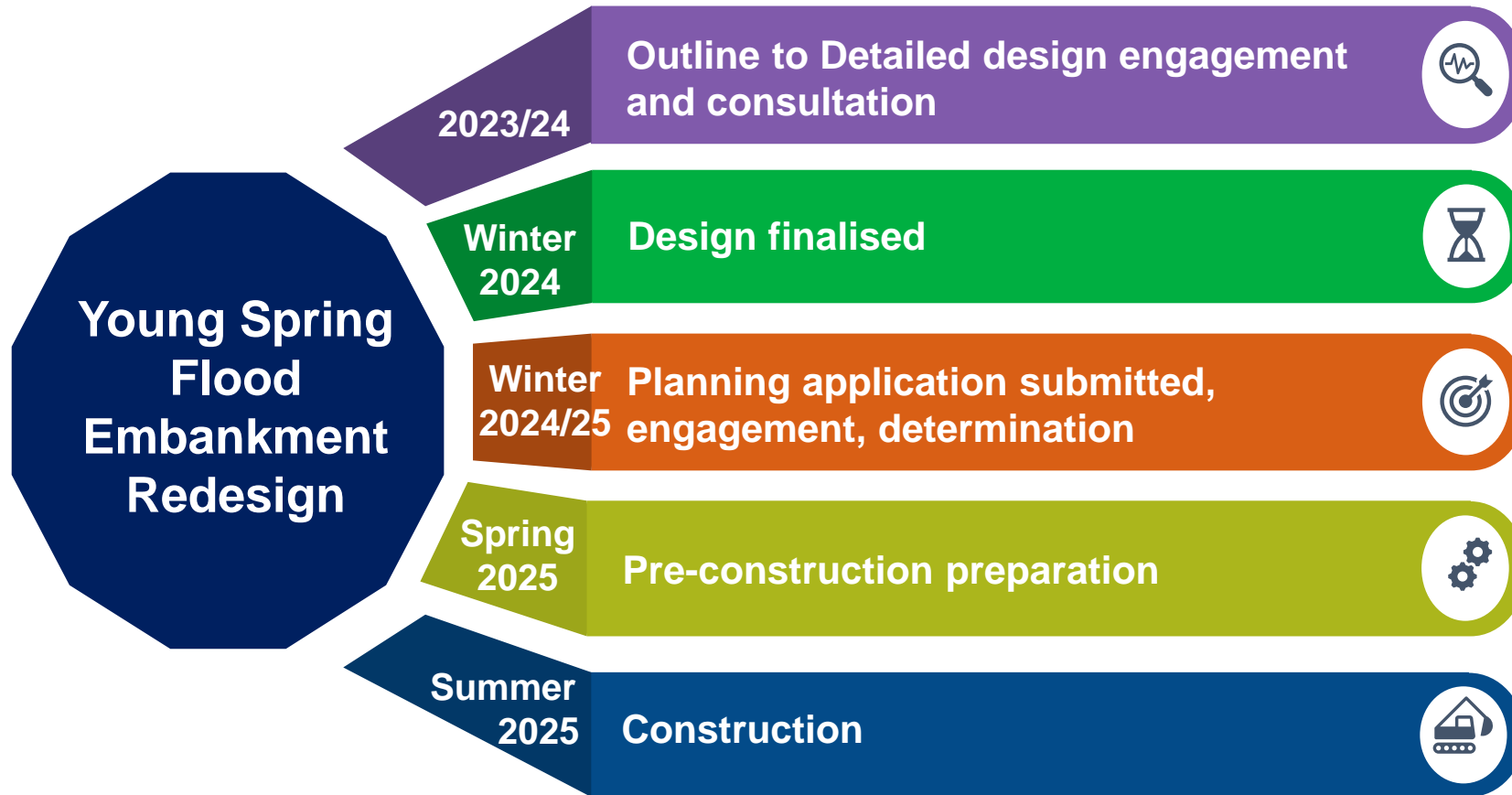
Young Spring Flood Embankment – construction

- Temporary fencing (stock proof/heras metal fencing mounted on the top, of no more than 2metres high) will be erected along the length of the proposed development site to protect the working area.
- A vehicle marshal will be at the entrance monitoring access to the compound.
- Existing Public Right of Way (PROW) (footpath 530013) crossing the site entrance on Scroggs Lane will be kept open. No diversions are proposed. A separate gate will be fitted to the stock proof fencing allowing people to walk along the PROW.
- Post construction the existing grassland will be reinstated and therefore be in keeping with the surrounding area.
- A Biodiversity Net Gain (BNG) agreement to be put in place. The Environment Agency are working up scenarios to deliver BNG adjacent to the development site.
- Trees will be retained.
- Access to Helsington Mills via Scroggs Lane will not be affected.



Heras fencing

Young Spring Flood Embankment – programme of works



Further information

- Supporting documents and further information including frequently asked questions are available on the flood hub www.thefloodhub.co.uk/kendal

Consultation

- The Young Spring Flood Embankment Planning Submission was formally submitted by the Environment Agency on 19 December 2024. Westmorland and Furness Council will then lead a period of statutory planning consultation that will last for 13 weeks. This is different to the early consultation and engagement carried out by the Environment Agency because comments are sent to Westmorland and Furness Council; they no longer go directly to the Environment Agency.

Information to be provided with the planning application

- Once the planning application package is submitted, it is available to view, together with all the supporting information on Westmorland and Furness Council's planning portal <https://planningregister.westmorlandandfurness.gov.uk>