





## European Union European Regional

Development Fund

# Kendal FRMS Phase 1

Application for consent to carry out works on Common Land - proposed works at Gooseholme Common, Kendal

**Supporting Statement** March 2022



# **Quality Management**

Г

Project	Kendal Flood Risk Management Scheme Phase 1				
Location	Kendal, Cumbria				
Title	Application for consent to carry out works on Common Land - proposed works at Gooseholme Common, Kendal - Supporting Statement				
Document Ref	ENV0000489C-CAA-00-4A0- RP-PL-0108 P03				
Date	March 2022				
Prepared by	Nicolas Holmberg (Capita) Signature (for file)				
Checked by	Tom Fitzpatrick (Capita) Signature (for file)				
Authorised / Approved by	Dan Stansfield (Capita) Signature (for file)				
Verified by (EA)	Alex Cowin (EA) Signature (for file)				

# **Revision Status / History**

Rev	Date	Issue / Purpose/ Comment	Prepared	Checked	Authorised
P01	May 20	For comment	AK/NH	TF	DS
P02	27 May 2020	EA (Tim Ayres, Celine McKinstry, David Johnson) comments and amendments	NH	TF	DS
P03	March 2022	Amendment to reflect design changes	NH	TF	DS



March 2022

# Contents

1.	Overview	1
2.	Flooding in Kendal	1
2.1	History of flooding in Kendal	1
2.2	Flood mechanism along Stock Beck and near Gooseholme Park	3
2.3	Flood risk management measures and current flood risk	3
3.	Gooseholme Registered Common Land	5
3.1	History of Gooseholme Registered Common Land	5
3.2	Impact of boundary discrepancy on this application	9
3.3	Gooseholme Common current common rights (Questions 1, and 7) 9	, 5, 6
4.	The Proposal	10
4.1	Wider Kendal Flood Risk Management Scheme Phase 1	10
4.2	Proposals at Gooseholme Registered Common Land (Questio 9 and 11) 11	ons 8,
4.3	Alternatives Considered	14
5.	Planning and consents	21
5.1	Current Planning Status (Question 19)	21
5.2	Alternative consents considered	22
6.	Common Land Impacts (Question 12)	22
6.1	Necessity of the works	22
6.2	Impact of the works and fulfilment of the Section 39 criteria	22
7.	Summary	27

# **Figures**

Figu	re 1 Aerial photograph of the Ann Street and Castle Street area December 2015 (figure taken from Kendal Flood Investigation Re	on 6th eport). 3
Figu	re 2 Environment Agency Flood Zone Mapping for the Goosehome and Stock Beck area.	e Park 4
Figu	re 3 SLDC 1899 Gooseholme Common Land layout.	5
Figu	re 4 Commons Registration Authority definitive.	6
Figu	re 5 Map appended to the definitive map	7



Figure	6	Open	Space	Society	application	for	amendment	to	registered
bc	bur	ndary							8
Figure	71	New Co	ommon	Land Bo	undary for G	Boos	eholme Com	mo	n 9

Figure 8 Image showing stone cladding likely to be used on flood defence walls at Gooseholme Common 25

# **Tables**

- Table 1 Alternative options considered for flood risk management of StockBeck and reasons for discounting them15
- Table 2 Alternative options for flood risk management in the GooseholmePark Common Land area (right and left bank of the River Kent) toprovide protection from the River Kent and reasons for discountingthem17
- Table 3 Alternative options for pumping station location and reasons for<br/>discounting them19
- Table 4 Alternative options for linear defence locations in Gooseholme Park(left bank) and reasons for discounting them20

# 1. Overview

This Supporting Statement has been produced to support the Environment Agency's application under section 38 of the Commons Act 2006 for flood risk management works proposed to be undertaken on Gooseholme Common, providing additional context and detail to the answers provided in the application form. Where information in this Supporting Statement relates to a specific question on the application form, the corresponding question number is identified in brackets after the section title.

The Environment Agency is a public body with jurisdiction over main rivers and strategic oversight for flood risk in England. Generally, the Environment Agency is not required to obtain consent for its flood risk management works as it is uses its powers to carry out "flood risk management works" contained in section 165 of the Water Resources Act 1991 (as amended by the Flood and Water Management Act 2010) ("Act") combined with the powers of entry under Section 172 of the Act.

Section 165 of the Act provides the Environment Agency with extensive statutory powers to carry out works required for the delivery of its flood risk management schemes. These include powers to maintain and improve existing flood risk management works and to construct new works. The Environment Agency can use these powers to construct the main features of any given scheme (for example, a flood wall) and also undertake works such as landscaping and mitigation works necessary to enable the Works or any given scheme to be delivered. There are two conditions on the exercise of these powers: (1) that the Environment Agency considers the works desirable having regard to the National Flood and Coastal Erosion Risk Management Strategy, and (2) that the purpose of the work is to manage a flood risk from the sea or a Main River. In respect of the Kendal Flood Risk Management Scheme, Phase 1 Linear Defences ("KFRMS"), these conditions are met, however, the Environment Agency's statutory powers under the Act are not stated to apply to common land and thus the Environment Agency's statutory powers are subject to the provisions of the Commons Act 2006. Accordingly, the Environment Agency must apply for consent if it wishes to undertake restricted works (defined as such in section 38(2) of the Commons Act 2006).

The proposed works are to improve flood resilience of the urban area surrounding the River Kent and Stock Beck and are part of a wider package of interlinked works throughout the town of Kendal. The works at Gooseholme Park comprise an integral part of the KFRMS, which would be rendered inviable without their implementation.

There has been an integrated design approach between the proposed flood risk management works and Cumbria County Council's replacement Gooseholme footbridge scheme, which received common land consent in August 2020 (COM/3236938). The Gooseholme footbridge contributes to the flood risk management works, with these tying into the footbridge. The integrated design has also led to the reduction in height of the proposed flood defences by up to 300mm in some places since initial designs were developed and the retention of existing access to the common via an up and over ramp.

The proposed works have a permanent above-ground footprint within the Registered Common Land of approximately 928m<sup>2</sup>, of which 854m<sup>2</sup> is hardstanding comprised of tarmac and paving, manholes and access hatches that will still be accessible to the public post-construction. The remaining 74m<sup>2</sup> will be occupied by the northern linear defences. The total area of the common comprises approximately 2.17ha.

The proposed works have been designed to minimise both construction and operational effects, including land-take, and to address the matters which the Secretary of State shall have regard to when determining the application for consent for the proposed works, under Section 39 of the Commons Act 2006.

# 2. Flooding in Kendal

## 2.1 History of flooding in Kendal

The town of Kendal lies on the floodplain of both the River Kent and River Mint with approximately one third of the town at medium risk of fluvial flooding and smaller pockets at high risk of flooding. Kendal is also at risk from surface water flooding. The core of Kendal town broadly follows the River Kent, although the suburbs have moved away from the watercourse due to urban spread. The primary flood mechanism in Kendal is overtopping of the watercourses with an additional source of flooding coming from surface water

run-off forming overland flows from the surrounding steep ground, overtopping storage basins and surcharging sewers.

Kendal has a long history of flood events with the earliest records dating back to the 17th century and a large event recorded in 1898. More recently, a total of 8 flood events have been recorded between 1954 and 2015, with the most notable of these occurring in:

- December 1954: a substantial flood event affected circa 300 residential and 70 commercial properties. This led to the creation of the River Kent Kendal flood alleviation scheme;
- December 1985: a flood of similar magnitude to the 1954 flood passed through Kendal with no serious flooding to the area protected by the flood alleviation scheme. Mintsfeet, however, was flooded which led to the creation of the raised embankments in this area;
- February 2004: a fluvial event flooded 80 properties in central Kendal and the Mintsfeet area. In Mintsfeet, both the Lake District Business Park and the Mintsfeet Industrial Estate were badly affected, with 20 and 27 premises flooded respectively. Residential properties on Busher Walk, Garden Road, and Burneside Road were also affected;
- January 2005: which resulted in the flooding of over 100 properties, with peak river levels on the River Kent in Kendal around 200mm higher than those experienced in February 2004. The main areas affected during this event were Mintsfeet - where 20 residential and 40 commercial properties were flooded - Busher Walk, Aynam Road, and Aikrigg End. The affected properties were in similar locations to those affected in 2004, with central Kendal suffering worse flooding than in the previous year;
- November 2009: Four properties were flooded in the Benson Green area by fluvial water from the River Kent, while property basements along Aynam Road and Lound Street were flooded by groundwater and surface water; and
- December 2015: As a result of an extreme pluvial event the River Kent, and its tributaries, over topped its banks, leading to flooding of more than 2,150 properties in Kendal alone. This event was the most extreme flood event recorded for the town. In Sandylands, initial flooding from Stock Beck occurred as the capacity of the underground culverted watercourse system was exceeded, followed by overtopping of the Stock Beck Flood Storage Basin (FSB). Flooding Stock Beck also impacted a number of roads in close vicinity to Gooseholme Common including Wildman Street, Ann Street, Castle Street, Gandy Street (refer to Figure 1 for image of this area on 6th December 2015).



# Figure 1 Aerial photograph of the Ann Street and Castle Street area on 6th December 2015 (figure taken from Kendal Flood Investigation Report).

## 2.2 Flood mechanism along Stock Beck and near Gooseholme Park

In the area around Gooseholme Park and the lower reaches of Stock Beck, flooding is caused both by overtopping of the River Kent and overtopping of Stock Beck, which occurs when high levels in the River Kent gravity lock Stock Beck, preventing flows from discharging into the Kent and causing them to back up in the Stock Beck catchment, flooding nearby properties.

Stock Beck comprises several sections of watercourse which originate in the farmland surrounding Kendal before entering the eastern side of Kendal where they converge and are joined by an influx of water from surface water drains. Ultimately the combined flows outfall into the River Kent in the town centre near Gooseholme Park.

Stock Beck is predominantly culverted along its length, particularly within its urban catchment. During flood events Stock Beck becomes gravity locked by high water in the River Kent, causing surcharging within the culvert network preventing the beck from discharging its flows into the River Kent. In addition, the existing Stock Beck outfall to River Kent is currently prone to siltation and gravel deposition restricting flow capacity. It's worth noting that pluvial events which trigger high flows in the River Kent may also lead to increased flows within Stock Beck compounding the issue.

## 2.3 Flood risk management measures and current flood risk

The River Kent – Kendal Flood Alleviation Scheme was completed in 1979 to manage a maximum passforward flow of 280 cubic metres per second in response to the flows associated with the 1954 flood event<sup>1</sup>. This existing flood alleviation infrastructure offers variable levels of flood resilience throughout Kendal with some areas offering resilience against as little as a circa 1 in 5-year event.

In 2006, South Lakeland District Council constructed the Stock Beck Flood Storage Basin. The basin, in combination with upsized culverts on the Stock Beck Tributaries upstream, was designed to reduce the risk

<sup>&</sup>lt;sup>1</sup> Kendal Appraisal Package: Kendal Short List Report – Capita (2018)

of flooding to properties located upstream and downstream of the basin, mainly in the Sandylands estate. In 2013, the responsibility for maintenance of the scheme was transferred to the Environment Agency.

Although existing flood risk management infrastructure has been installed in Kendal, National flood risk modelling for planning purposes indicates that both the north and centre of the town still lie within Flood Zone 3 and the surrounding areas in Flood Zone 2. The area adjacent to Gooseholme Park is also shown to be within Flood Zone 3, with some smaller pockets within Flood Zone 2, as shown in Figure 2. Flood Zone 3 is land which has a greater than 1% probability of flooding from river sources in a given year. The area around Stock Beck is currently in this category with a chance of flooding of approximately 20% in any given year.



Figure 2 Environment Agency Flood Zone Mapping for the Goosehome Park and Stock Beck area.

The 2015 'Storm Desmond' event provided impetus for investigation of the flood risk in key locations across Cumbria, including Kendal, and development of flood risk management schemes. Within Kendal this led to the development of the Phase 1 *Kendal Flood Risk Management Scheme,* comprising linear defences along the Rivers Kent and Mint and a pumping station with associated works on Stock Beck. The proposed works would seek to reduce flood risk in the Stock Beck and Gooseholme Park area to between 2 and 5% in any given year.

# 3. Gooseholme Registered Common Land

## 3.1 History of Gooseholme Registered Common Land

There has been a disparity in the historic boundary for this common on the mapping held by Cumbria County Council Commons Registration Service (CCCCRS), South Lakeland District Council's (SLDC) mapping from 1899 and the boundary demarcated on MAGIC<sup>2</sup>.

Mapping held by SLDC from 1899 (see Figure 3 below) depicts the Registered Common Land included in the 1899 Scheme of Management by Kendal Borough Council, presenting the area as a distinct island and shoals. The island is bounded by the River Kent on the west and a millrace to the east and is connected to the right bank (west) of the river by a footbridge at its southern extent.



Figure 3 SLDC 1899 Gooseholme Common Land layout.

Following the 1965 Commons Registration Act, the Commons Registration Authority accepted the application by Kendal Corporation to register a new common boundary with a closed millrace and new river alignment. The definitive map associated with the register consists of a largescale map, resulting in an unclear boundary to the common land (See Figure 4). The total area of the land registered as common land in1972 under reference CL 153 is approximately 1.43 ha.

<sup>&</sup>lt;sup>2</sup> Multi-Agency Geographic Information for the Countryside - <u>https://magic.defra.gov.uk</u>



Figure 4 Commons Registration Authority definitive.

Figure 5 shows a different boundary stapled to the definitive map. There is no reference in the register why this map has been appended to that registered and we must conclude that it has no legal basis.



Figure 5 Map appended to the definitive map

The Open Space Society (OSS) submitted an application to the Commons Registration Authority in 2019, to amend the land boundary of Gooseholme Common, including all 1899 Scheme of Management land (depicted in blue in Figure 6). In October 2020, the application was granted and the additional 0.45ha of land depicted in Figure 6 below were added to the common-land register, resulting in a total area of 2.17ha.



Figure 6 Open Space Society application for amendment to registered boundary



Figure 7 New Common Land Boundary for Gooseholme Common

## 3.2 Impact of boundary discrepancy on this application

During the design of the KFRMS, the boundary of Gooseholme Common was understood to be as depicted in Figure 5 above, and the scheme was designed accordingly, to avoid and reduce direct land- take from the common. Refer to Appendix B for a depiction of the proposals against the incorrect common land boundary.

However, following further clarification of the Registered Common Land boundary discrepancy described above, it is now understood that this boundary did not cover the entirety of the land protected under the Common Land Registration. This application has therefore been revised and submitted against the newly updated boundary depicted in the Definitive Map (see Figure 7). Refer to Appendix A for a depiction of the proposals against the definitive common land boundary.

# 3.3 Gooseholme Common current common rights (Questions 1, 5, 6 and 7)

The total area of the land registered as common land in 1972 under reference CL 153 was approximately 1.43 ha. Following the OSS application referred to above, the area of Registered Common Land at Gooseholme Park reaches approximately 2.17ha. The Registered Common Land was originally registered under the Commons Registration Act 1965. At the time of registration and subsequently, no rights of common have been registered. After reasonable enquiry, it would appear that no person has tried to assert or exercise any rights of common since the designation of the area.

It is recognised that there is a right of access for public recreation in relation to the land subject to the Scheme of Management. Article 5 of that order provides:

"The inhabitants of the district shall have a right of free access to every part of the common and a privilege of playing games and of enjoying other species of recreation thereon, subject to any byelaws made by the Council under this scheme."

Such an order can only be made in relation to common land, that is to say land over which there are rights of common. We can therefore assume that, at least in 1910, there were rights of common in existence.

Even though the rights of common have been extinguished by the failure to register them, it is recognised that there are public rights of recreation, protected in law, separate and distinct from the rights of common. It is these rights that this application will seek to address. Section 39 of the Commons Act 2006 sets out the criteria the Secretary of State shall have regard to when assessing applications to undertake works on Registered Common Land. Section 39 states that:

"(1) In determining an application for consent under subsection (1) of section 38 in relation to works on land to which that section applies, the appropriate national authority shall have regard to—

(a)the interests of persons having rights in relation to, or occupying, the land (and in particular persons exercising rights of common over it);

(b)the interests of the neighbourhood;

(c)the public interest;

(d)any other matter considered to be relevant.

(2) The reference in subsection (1)(c) to the public interest includes the public interest in-

(a)nature conservation;

(b)the conservation of the landscape;

(c)the protection of public rights of access to any area of land; and

(d)the protection of archaeological remains and features of historic interest."

Moreover, although consultation with SLDC identified no commoners, two organisations are known to currently use or having used Gooseholme Common in the past:

- Kendal Putting Association. The proposed linear defences on the southern boundary of the common also run along the boundary of the putting green.
- A fairground occasionally uses the common to host fairs. The fairs are held twice annually at an agreed location in Kendal, which is usually New Road Common. The fairground holds a royal charter which provides rights to hold a fair.

# 4. The Proposal

## 4.1 Wider Kendal Flood Risk Management Scheme Phase 1

The KFRMS proposes to increase the standard of resilience for Kendal against flooding from the River Kent and its tributaries to a 5% Annual Exceedance Probability (AEP). This is a flood event that has a 5% probability of occurring in any given year which is a significant increase on the previous level of protection in Kendal where the onset of flooding is as high as a 50% AEP in some locations. 227 residential properties and a minimum of 71 businesses with a further 85 properties labelled as unclassified will be protected as a consequence of the scheme.

In summary the KFRMS has been developed to promote a scheme which:

- Makes the area more resilient to flooding;
- Minimises the economic and social impacts of flooding;
- Ensures that expenditure on flood risk is proportional to the risk to the community;
- Explores opportunities for both engineered and natural flood management solutions; and
- Delivers wider benefits for people and wildlife that are sensitive to the local environment.

Broadly, the KFRMS works comprise:

- A combination of walls and embankments (linear flood defences) along sections of the Rivers Mint and Kent ranging from 0.3m to 2m in height and with a total length of over 6.0 kilometres (along both riverbanks) including flood gates and up and over structures to retain access;
- Flood resilience measures for some existing properties that border the watercourse. This comprises undertaking the appropriate measures to seal off any flow paths into existing properties such as repointing and raising air bricks;
- Some minor raising of existing footpaths, roads and garden patio levels to remove flow paths; and
- A 1.5m<sup>3</sup>/s capacity pumping station at the Stock Beck outfall to pump water from Stock Beck when it becomes gravity locked by the River Kent.

Where possible the linear flood defences will tie in to existing high ground or existing structures to give a consistent level of protection across the town. KFRMS is also proposed to include drain down structures in the linear defences to ensure that water can escape back into the watercourses following a design exceedance event. These are proposed at any low spots where water could potentially pond behind the new defences.

# 4.2 Proposals at Gooseholme Registered Common Land (Questions 8, 9 and 11)

Several measures were considered to provide flood risk management measures to the local area (discussed below in Section 4.3), alone and in combination, before the leading option was selected, based on a combination of engineering, environmental and economic factors. The proposals consist of three permanent elements located within the Gooseholme Common: Linear defences and Stock Beck Pumping station on the left bank of the River Kent and linear defences on the right bank of the River Kent. These elements are depicted in Appendix A and described in further detail below.

The total footprint of the permanent elements is 1,122m<sup>2</sup> (including both subterranean and surface level elements), with an area of 928m<sup>2</sup> covered by permanent features visible at the surface and within the Registered Common Land. This includes the 74m<sup>2</sup> area covered by the 212m of the proposed linear defences located within the footprint of the Registered Common Land. The combined length of the northern and southern linear defences (both within and outside of common) on the left bank of the River Kent is 336m and the length of the linear defences on the right bank of the River Kent is 198m.

## Linear Defences at Gooseholme Park (Left Bank of the River Kent)

The Northern linear defences consist of:

- 167m length of stone clad reinforced concrete flood defence wall running in a general southeasterly direction from Stramongate Bridge before veering east towards the eastern boundary of the common, which it then follows southwards before tying into the existing high ground (see Appendix A).
- Two steel flood gates to maintain access to the common:

- one 4.2m wide flood gate providing access across the linear defences. This gate will remain open at all times, except when there is a forecast risk of flooding and when maintenance works are being carried out to the pumping station; and
- one smaller (3m) wide flood gate providing alternative access across the linear defences and in/out of the common, particularly when maintenance works are being carried out to the pumping station.
- A third gate to provide maintenance access to the river. This gate remains closed except when required for maintenance.

The Southern linear defences consist of:

• 169m of stone clad, reinforced concrete flood defence wall (total width of 600mm), approximately 80m of which runs along the southern boundary of Gooseholme Common (see Appendix A).

### Linear Defences at Sand Aire House (Right Bank of the River Kent)

The linear defences on the right bank of the River Kent run for a total of 198m, from Stramongate Bridge down to the new Gooseholme Footbridge (which at the time of writing is not constructed). The defence runs through five discrete areas, with two of these interacting with the Gooseholme Park Common Land:

- 26m of T wall section connecting the Bridge Inn through Sand Aire House communal garden, up to the river's edge. This section of wall is circa 1.110m above ground level and will be clad in stone. This wall will pass over a United Utilities water main, as it travels perpendicularly across the river. This wall will 'bridge over' the pipe to minimise load transfer onto the pipe below; and
- a reinforced L shaped wall that runs along the existing river wall alignment within Sand Aire House with a maximum height of 1.274m to a minimum of 0.810m. The wall will be clad in stone and, where the wall is less than 1.1m, there will be a 300mm handrail fixed to the top of the wall.

### Stock Beck Pumping Station

The pumping station in Gooseholme Park aims to increase conveyance of Stock Beck and maintain its discharge even when water levels in the River Kent are high and the existing outfall becomes gravity locked by the river. The pumping station works comprise the following elements:

- A pumping station Motor Control Centre (MCC) kiosk and electricity substation (both located outside the boundary of Gooseholme Park Common Land and not the subject of this Section 38 application);
- The replacement of the culvert network under Gooseholme Park with new gravity system and a new pumped system, including a wet well, valve chamber, pipework (all subterranean works);
- A new reinforced concrete outfall to the River Kent, clad in stone; and
- New permanent areas of hardstanding within Gooseholme Park Common Land.

These elements are shown in Appendix A.

The existing Stock Beck outfall to River Kent is currently prone to siltation and gravel deposition restricting flow capacity. Therefore, the proposal is to replace the existing outfall with a new one 40m further downstream to reduce the risk of blockages, improve operational condition and reduce the frequency of gravel removal from the channel. The new outfall will serve two new culverts, one gravity discharge culvert and a pumped discharge culvert, both equipped with flap valves. An overflow chamber on the new gravity culvert will be required to allow for flow diversion into the pumping station when the outfall becomes gravity locked during high river levels. The bullet points below provide further detail on the different elements comprising the new pumping system:

• A subterranean diversion culvert measuring 1.35m in width and 1m in height, beginning outside the common boundary and entering the eastern edge approximately opposite the northern extent of St. George's church (SD 51926 92962). The culvert travels in a roughly south-westerly vector, interfacing with new utilities infrastructure before turning sharply west and discharging into the River Kent via a new outfall headwall described below;

- An outfall headwall structure (with an associated flap valve) to house the new gravity culvert outfall and pumped culvert outfall. Security/debris screen will be provided to prevent unauthorised access and damage to flap valves from debris;
- A 4.5m wide by 4m long subterranean overflow chamber (which will include a weir to allow high flows to be diverted to the wet well);
- A 6m diameter subterranean wet well (which will include 3No. pumps and associated internal riser pipework and ancillaries) including ground level hardstanding and access covers;
- A 6m wide by 2.6m long subterranean valve chamber housing non-return and isolation valves and including ground level hardstanding and access covers;
- Two surface level air vents to allow ventilation of the subterranean wet well chamber;
- Subterranean rising main pipework and electrical ducting; and
- Two subterranean manholes (one 2.4m diameter and one 3m diameter) with associated ground level access covers.

In addition to the above, two areas of permanent hardstanding will be created, comprising of:

- An existing footpath will be widened by 0.5m and strengthened in order to act as a permanent access track to the wet well.
- Hardstanding crane pad to facilitate future lifting operations.

#### Temporary works

In order to construct the proposals above, **three temporary works areas** will be required within Gooseholme Common:

- An area at the northern part of the common, to facilitate the construction of the pumping station and the northern linear defences. This will include a large lay down area, a stockpiling area and a turning circle;
- An area adjacent to the southern boundary of the common, to facilitate tree removal and the construction of the linear defences adjacent to the southern boundary of the common; and
- An area at the right bank of the River Kent to allow the construction of the linear defences adjacent to Sand Aire House.

Use of these areas will amount to a total temporary land-take area of 3,430.3m<sup>2</sup> within Gooseholme Common. All temporary working areas (i.e. areas within the working area that will not be covered by permanent features) will promptly be reinstated to their previous condition upon completion of the works.

### Maintenance

To ensure serviceability of assets in the future, ongoing maintenance will be required. It is anticipated that this will include:

- Routine visual surveys to check the condition of assets:
  - Walls, flood gates, manhole cover, outfall headwall and hard standing areas the common will not need to be closed to undertake maintenance of these as maintenance can be undertaken from publicly accessible areas. It is expected that this maintenance will be undertaken every six months; and
  - **Subterranean elements of the pumping station**, there will need to be temporary closure of some sections of the common. This is because temporary safety fencing will need to be erected to enable segregation of the public from open chambers which pose a health and safety risk. Temporary safety fencing will be erected around manholes. This will be undertaken twice a year and will be undertaken between the hours of 8am and 5pm.
- Operational checks of mechanical equipment:

- **Flood gates** there will be a requirement to close them twice a year to check that they are operating correctly. This will require temporarily blocking off only one of the access points into the common at any one time whilst this is done. The operational check will take approximately ten minutes per gate; and
- **Pumps** -there will be a requirement to run the pumps on a monthly basis to check that they are operating correctly. This will involve filling the pumping station wet well and turning the pumps on to ensure that they pump the water out. This will require chambers to be temporarily fenced off with temporary safety fencing, segregating the public, so that manhole covers can be opened to allow staff to visually inspect them.
- Infrequent maintenance:
  - Stock Beck gravity culvert CCTV survey will be required, which will involve opening manholes covers within the common. These would be fenced of using temporary safety fencing, typically for up to two hours at any one time;
  - Pumps will need to be serviced every 5 to 10 years to ensure that they are operating correctly. This will require a crane or other lifting equipment to lift equipment in or out of chambers. This will also require closing the 4.2m wide flood gate and temporarily fencing off the area of land between St George's Walk and the flood defence wall using temporary safety fencing. This would typically take between 4 to 8 hours; and
  - **Access** -will be needed through the common to allow vehicular access to the watercourse for removal of river gravel. This will require fencing off some parts of the common adjacent to the river and in the immediate vicinity of the works using temporary safety fencing.
- Emergency repairs to ensure that the assets are serviceable:
  - **Walls** this will likely involve repointing stone cladding or resetting coping stones following damage. This will require locally fencing off a small working area around the walls on a temporary basis when the work is undertaken to segregate the public; and
  - Flood gate seals will need replacing approximately every 10 years and their protective coating will need replacing approximately every 20 years. This will require locally fencing off a small working area around the gates on a temporary basis when the work is undertaken to segregate the public. Work will only be undertaken on one gate at a time.

## 4.3 Alternatives Considered

We have considered alternatives to the proposed works which may have less of an effect upon the common than the proposed works. In the sections below, there is first a description of the alternative options considered and then a description of the alternative locations considered for the chosen preferred options.

## Options

Several alternative options were considered for flood risk management on Stock Beck and from the River Kent in the Gooseholme Park Common Land area. These are detailed in the tables below with reasons why they were discounted. Table 1 provides details on the alternative options considered for flood risk management of Stock Beck and Table 2 provides details on the alternative options considered for flood risk management in the Gooseholme Park Common Land area (right and left bank) to provide protection from the River Kent.

# Table 1 Alternative options considered for flood risk management of Stock Beck and reasons for discounting them

Option description	Reason(s) for discounting
<b>Do nothing</b> - this option represents a scenario where there is no maintenance, flood warning activities cease, and no further works are undertaken to preserve or alter the	Hydraulic modelling shows that this option would significantly increase the flood risk in the area. It would also increase the risk to life. This is because the cessation of maintenance and operation activities will result in:
standard of protection of <b>existing assets</b> . This scenario represents a gradual deterioration of all assets over time.	<ul> <li>asset detenoration potentially leading to culvert collapse.</li> <li>accumulation of gravels, boulders, stones and other debris, leading to structural blockage of culverts and channels.</li> </ul>
	Moreover, the magnitude and frequency of flooding in Kendal is expected to increase and flood resilience decrease as a consequence of climate change.
<b>Do minimum</b> - this option represents a scenario where the minimum amount of action or works are undertaken to maintain the <b>existing assets</b> .	This option does nothing to minimise the social and economic harm of flooding. Whilst this option does maintain the 'status quo', it does not meet a key project objective of making the area more resilient to flooding. This means that there are no socio-economic benefits or any benefit to open space and designated heritage features.
Increase the capacity: throughout the network of culverts forming the urban	This option had potential to make the area more resilient to flooding, however, it had been ruled out for several reasons:
catchment of Stock Beck.	• Investigation showed that much of the network is closely entwined with foundations and other subterranean structures of existing properties. It was concluded that works to upsize the culverts, could require significant alteration to or even at worse case demolition of several residential properties where the culverts were inextricably linked with or immediately adjacent to foundations.
	• To increase the culvert capacity safely in a densely populated urban area would be technically very challenging and the construction works would therefore take a long time. This would result in significant disruption to the neighbourhood. It would also conflict with the CDM Regulations in terms of identifying a less risky solution.
	<ul> <li>As Stock Beck becomes gravity locked during flood events on the River Kent whilst, often, simultaneously also carrying increased volumes of water, it cannot be guaranteed that upsizing the culvert network alone would resolve flooding in this area. This is because it remains possible that the volume of water deposited on Stock Beck's catchment, whilst it is simultaneously gravity locked, could exceed the enhanced capacity for the culvert network. This would cause the beck to surcharge and potentially further increase flood risk if surcharging water is retained on the 'dry side' of the proposed KFRMS Phase 1 linear defences. Aside from potentially</li> </ul>

	failing to achieve the desired outcome, retained water on the dry side of the linear defences has clear implications for public health and safety.		
Attenuate flow at Birds Park Reservoir – this would involve restricting the flow passed forward to the urban area by allowing some upstream storage.	Hydraulic modelling concluded that additional storage in the two reservoirs made a very small decrease to the number of properties affected by flooding and only marginal difference in benefits to the existing situation. This is because the location of the reservoir in the catchment means that it has no influence over the majority of flow that reaches the urban area.		
Attenuate flow at Spital Farm – this would involve restricting the flow passed forward to the urban area by creating some upstream storage.	Hydraulic modelling concluded that additional storage at this location made a very small decrease to the number of properties affected by flooding and only marginal difference in benefits to the existing situation. This is because the location of the area in the catchment means that it has no influence over the majority of flow that reaches the urban area.		
Attenuate flow at Jenkin Rise and Sandylands Road Park – this would involve restricting the flow passed forward to the urban area by allowing some upstream storage.	<ul> <li>This option had potential to make the area more resilient to flooding, however, it was ruled out for several reasons:</li> <li>The requirement for a high impounding structure in an amenity space in a residential area makes this option unfavourable. It introduces a number of health and safety risks for local residents which would be difficult to mitigate. In addition, the impounding structure would be extremely visually intrusive.</li> <li>The construction of the impounding structure in the urban area would be technically very challenging and the construction works would therefore take a long time. This would result in significant disruption to the neighbourhood. It would also conflict with the CDM Regulations in terms of identifying a less risky solution.</li> </ul>		

Following assessment of the options, it was considered that the most feasible option for flood risk management on Stock Beck is the installation of a pumping station which can mitigate the effect of the watercourse getting gravity locked by the River Kent and can ensure that water does not back up and surcharge the system.

# Table 2 Alternative options for flood risk management in the Gooseholme Park Common Land area (right and left bank of the River Kent) to provide protection from the River Kent and reasons for discounting them

Option description	Reason(s) for discounting
<b>Do nothing</b> - this option represents a scenario where there is no maintenance nor any works to preserve or other the standard of protection of	This option would significantly increase the flood risk in the area and the risk to life. As a result of the cessation of maintenance and operation activities there will be:
existing assets. This scenario represents a gradual deterioration of all	• asset deterioration potentially leading to riverbank wall collapse.
assets over time.	• accumulation of gravels, boulders, stones and other debris, leading to blockage at bridges and other structures.
	This combined with cessation of Flood Warning activities will significantly increase flood risk and risks to public health and safety.
	Moreover, the magnitude and frequency of flooding in Kendal is expected to increase and flood resilience decrease as a consequence of climate change.
<b>Do minimum</b> - this option represents a scenario where the minimum amount of action or works are undertaken to maintain the existing assets.	This option does nothing to minimise the social and economic harm of flooding. Whilst this option does maintain the 'status quo', it does not meet a key project objective of making the area more resilient to flooding. This means that there are no socio-economic benefits or any benefit to open space and designated heritage features.
<b>Upstream storage</b> – this would involve attenuating flow upstream to reduce the flow passed forward to the urban areas downstream.	This option had the potential to remove the need for linear defences around Gooseholme Park and in Sand Aire House however, the assessment suggested that upstream storage alone could not reduce water levels in the town enough to keep water within bank during extreme events. The number of upstream storage areas was limited to a maximum of two because of the environmental impacts, costs and operational requirements. A hydraulic assessment to test the best combination of storage areas identified that there was still a flood risk in some parts of the town despite the attenuation upstream. Gooseholme Park and Sand Aire House were two of the areas that were still at flood risk even with upstream storage.
Increase the capacity of the rivers throughout Kendal by widening the existing channels.	<ul> <li>This option had the potential to remove the need for linear defences around Gooseholme Park and Sand Aire House however it was ruled out because it was not considered technically feasible for the following reasons:</li> <li>Properties are located on, or very close to, the riverbank for large sections of the River Kent and River Mint. To relocate these properties would cause extreme disruption and would not be economically viable.</li> <li>At Gooseholme Park, it would have resulted in the loss of much of the Common Land.</li> <li>At Sand Aire House it would have meant the removal at least part of the property itself which has a support pillar immediately adjacent to the river.</li> </ul>

	<ul> <li>In many other areas it would result in the loss of existing amenity land.</li> <li>Construction within the watercourse would have negative environmental impacts.</li> </ul>
Increase the capacity of the rivers throughout Kendal by deepening the channel (dredging).	<ul> <li>defences around Gooseholme Park and Sand Aire House, however, this option was ruled out on the grounds it was technically not feasible:</li> <li>Deepening of channels would undermine the existing channel walls, buildings and bridges which would all require rebuilding. This would cause months of extremely disruption to the local community and residents and not economically viable.</li> <li>Ground investigation suggests that bedrock is encountered at shallow depths in some locations. This would make deepening of the channel extremely difficult and not economically viable.</li> <li>Construction within the watercourse would have negative environmental impacts, such as on the geomorphology River Kent and on some of its designating features (White-clawed crayfish for example).</li> </ul>
Modify out of bank flow routes through street furniture and small walls to route water away from properties at risk of flooding.	This option was not considered a feasible alternative because flood depths are too high for most return periods for street furniture and small walls to be effective at diverting flow away from property. This option could only marginally improve the flood risk in the area.

Following assessment of the options, it was considered that the most feasible option for flood risk management in the Gooseholme Park area and at Sand Aire House to provide protection from the River Kent is linear defences. These defences will be designed with the aim of keeping water away from properties and other infrastructure.

## Location

Several alternative locations were considered for siting the preferred option works to try and avoid any impact on the common. These are detailed in the tables below with reasons why they were discounted.

Table 3 provides details on the alternative locations considered for the Stock Beck Pumping Station; Table 4 provides details on the alternative locations considered for the linear defences in Gooseholme Park (left bank) and Table 5 provides details on the alternative locations considered for the linear defences in Sand Aire House (right bank). It should be noted that the pumping station and the linear defences on the left bank are directly linked in that the pumping station must be on the dry side of the linear defences. The reason for this is that safe, unimpeded access needs to be maintained to the pumping station during times of flooding to ensure that it is operating correctly and to enable any emergency maintenance to be carried out if required.

Alternative location description	Reason(s) for discounting			
Car park of Henry Jackson & Co. Ltd	This location was discounted for the following reasons:			
Motor Engineers	• Deep excavations to site the pumping station infrastructure presents a significant risk of undermining existing properties. There is also a health and safety risk of encountering hydrocarbons in this location due to the land use (a motor garage). This makes construction technically very difficult and therefore not economically viable. It would also conflict with the CDM Regulations in terms of identifying a less risky solution.			
	• To undertake the deep excavations adjacent to existing properties in a safe manner would take a long time. This would cause significant disruption to the motor garage business.			
	• There is a significant risk to the operation of the pumping station if cars associated with the business were to park on top of access covers at a time when access was needed into any of the below ground infrastructure.			
	• As a pumping station in this location would be further from the watercourse, the discharge pipework would be much longer and therefore less economically viable. This discharge pipework would still have to run beneath some parts of the common as well so it would not completely remove impacts on the common. There would be some temporary disruption to the common when subterranean discharge pipework was laid and there would be a new manhole cover and hardstanding surround at ground level. It would also cause disruption to the A684 Castle Street when it was laid.			
Car park of Castle Street Community	This location was discounted for the following reasons:			
Centre	• Deep excavations to site the pumping station infrastructure presents a significant risk of undermining existing properties. This makes construction technically very difficult and therefore not economically viable. It would also conflict with the CDM Regulations in terms of identifying a less risky solution.			
	• To undertake the deep excavations adjacent to existing properties in a safe manner would take a long time. This would cause significant disruption to the Community Centre.			
	• There is a significant risk to the operation of the pumping station if cars associated with the Community Centre were to park on top of access covers at a time when access was needed into any of the below ground infrastructure.			
	• As a pumping station in this location would be further from the watercourse, the discharge pipework would be			

# Table 3 Alternative options for pumping station location and reasons for discounting them

	much longer and therefore less economically viable. This discharge pipework would still have to run beneath some parts of the common as well so it would not completely remove impacts on the common. It would also cause disruption to the A684 Castle Street when it was laid.
--	--

Following assessment of the alternative locations, it was considered that the most feasible option in terms of health and safety, minimising disruption during construction and economic viability was in Gooseholme Park.

# Table 4 Alternative options for linear defence locations in Gooseholme Park (left bank) and reasons for discounting them

Alternative location description	Reason(s) for discounting
Aligning the linear defences along the river side of the common, outside the current boundary.	<ul> <li>This alignment was discounted for several reasons.</li> <li>Severe visual impacts - where the park would be visually severed from the River Kent which forms a key component of this area. This is in-line with the requirement in Section 39 to consider the landscape and visual impacts of proposed works.</li> </ul>
	• Not socially acceptable. During public consultation, local residents confirmed that they did not want to lose connectivity with the watercourse. Siting defences in this location would have removed connectivity between Gooseholme Park and the watercourse and therefore was not deemed socially acceptable.
Setting the defences back further inland, at St George's Walk/Thorny Hills Road	This alignment would not completely remove impact on the common (as some parts of the linear defence would still cut through it), but it had the potential to reduce the impact by taking some of the linear defence outside of the boundary. However, it was discounted because the only feasible alternative location would still result in significant disruption during a flood event and additional operational issues. The only feasible alternative location to ensure that property remained protected was to site the defences on the opposite side of St George's Walk/Thorny Hills Road. This would mean that during a flood event, this key access route for the local area would still be flooded. Furthermore, flood gates or similar would be needed where the linear defence crosses roads. These would need closing during a flood event which would add extra operational burden and increase the risk of flooding.

# Following assessment of the alternative locations, it was considered that the most feasible option in terms of maintaining connectivity with the watercourse and ensuring all infrastructure in the area is protected, is the location proposed in this application.

The Environment Agency has tried its best to minimise the encroachment of the linear defences into the common. The requirement for the pumping station to be on the dry side of the defences, as a necessity, has pushed the linear defences into the common. However, the linear defences have been designed to encroach as little as possible by leaving only the minimum of space required for maintenance on the dry side of the defences. Having access to undertake maintenance on the dry side of the defences is

fundamental to ensuring the performance of the pumping station and thus the management of flood risk in the area.

Table 5 Alternative options for linear defence locations in Sand Aire House (right bank) and reason
for discounting them

Alternative location description	Reason(s) for discounting
Setting the defences back further inland, into the Sand Aire House Car Park	This alignment would remove the linear defences from within the common. However, it was discounted because the only feasible location would be to site the defences in the Sand Aire House Car Park. This would have a detrimental impact on the residents of Sand Aire House as a significant proportion of the current car parking spaces would be lost.
Specifically, in the Sand Aire House Communal Garden, setting the defences above the existing river wall.	This alignment would not completely remove impact on the common (as some parts of the linear defence would still cut through it), but it had the potential to reduce the impact on the communal garden. However, this option was discounted as it would result in the definite removal of a large weeping willow tree that is currently present within the communal garden and that the residents have an aspiration to retain.

Following assessment of the alternative locations, it was considered that the most feasible option in terms ensuring all infrastructure in the area is protected whilst not negatively impacting existing car parking, is the location proposed in this application. Whilst there is some marginal encroachment of the linear defences into the common, the Environment Agency has minimised the impact by siting the majority of the linear defence above the existing river wall which already provides a barrier between the Sand Aire House Car Park and the River Kent.

# 5. Planning and consents

## 5.1 Current Planning Status (Question 19)

This section is intended to provide further clarity on the planning status of the proposals, as requested in Question 19 of the "Application for Consent to Carry Out Works on Common Land - Commons Act 2006: Section 38".

The proposals within the Gooseholme Park Common form part of the wider KFRMS, which was granted planning permission by South Lakeland District Council on 28 June 2019 (SL/2018/0925). The development for which planning permission has been obtained is:

'Phase 1 Kendal Linear Defences comprising works along the rivers Kent & Mint through Kendal including new & raised flood walls, new & raised flood embankments, ground raising, pumping station & associated changes to the public realm & landscaping'

Full planning permission has been granted for the proposed works at Gooseholme Park, however, subsequent detailed hydraulic assessment of the pumping station requirements as well as the requirement to provide appropriate fish passage has identified constraints previously not known, leading to a change in the proposed design.

As a result, a new planning application will be submitted to cover the changes to the pumping station and the alignment of the northern linear defences. The nature of the proposals remains the same (i.e. a pumping station and linear flood defences), but the layout has been amended to account for this new information, resulting in the current design having a shorter diversion culvert, a larger fish friendly pumping arrangement (albeit underground) and an alternate linear defence arrangement to accommodate this.

The environmental impacts associated with the new design will be thoroughly assessed in an Environmental Statement Addendum, however, we do not anticipate that these will materially alter the conclusions reached in the Environmental Statement provided in support of the extant planning permission (discussed in the sections below).

## 5.2 Alternative consents considered

The Environment Agency has considered whether consent for deregistration under section 16 of the Commons Act 2006 could be applied for. Importantly, an application for section 16 consent can only be made by an owner of common land and the Environment Agency is not owner of the common land; the land is owned by SLDC. SLDC are not desirous of promoting an application for section 16 consent for deregistration of the common land.

Defra's Common Land Consents Policy Guidance (July 2009) suggests that the best option for works that would not be consistent with the traditional use of the common, or for its management, improvement or protection would be an application for deregistration of common land under section 16. The guidance makes it clear that generally the sort of works envisaged are those works for **private benefit**, or which would be to the detriment of the common. Importantly, the proposed flood risk management works will be undertaken in exercise of the Environment Agency's statutory powers under the Water Resources Act 1991 (as amended by the Flood and Water Management Act 2010) and the flood risk management works are clearly intended to provide significant underlying **public benefit**. Whilst each application must be decided on its merits, it is worth noting that public benefit provided by flood risk management works has been considered to bring such works within the remit of a section 38 application. The most relevant case currently appears to be Land on Riverbank, Upton upon Severn, Worcestershire, (ref COM 184, decided on 22 February 2011).

Cumbria County Council's proposals to construct a replacement footbridge at the common, are separate to but have an interface with the Environment Agency's proposed flood risk management works. Cumbira County Council's proposed works were granted section 38 consent on 27 August 2020 (ref COM/3236938).

In light of the above, a section 38 application is considered to be the option to enable delivery of the flood risk management works. During the design process and through consultation with third parties, the Environment Agency has tried its best to minimise the impact of the proposed flood risk management works on the common. Accordingly, the common will remain a park, retaining the benefit of the common land protection.

# 6. Common Land Impacts (Question 12)

## 6.1 Necessity of the works

The proposed works are needed to reduce flood risk in the town of Kendal which has been historically subject to flooding, most notably in recent years in the 2015 Storm Desmond event which affected more than 2,015 residential and commercial properties in total. These form part of the wider KFRMS Phase 1. The proposed works on the common are an integral part of the proposed flood risk management works and without them, the KFRMS will be rendered unviable. This would leave significant areas of the town of Kendal with flood resilience of only approximately a 20% chance of flooding in any given year - a standard of protection that will decrease over time with the effects of climate change. The area around Stock Beck is one of these areas and currently has a 20% chance of flooding in any given year. The proposed works are for the public good and will reduce this to between 2% and 5% in any given year.

## 6.2 Impact of the works and fulfilment of the Section 39 criteria

This section of the report describes the likely impacts of the proposals on Gooseholme Common as well as how the proposals fulfil the criteria set out in Section 39 of the Commons Act 2006 (described in Section 3.3.

# The interests of persons having rights in relation to, or occupying, the land (and in particular persons exercising rights of common over it)

As outlined in Section 4 above, the proposals will require a total <u>temporary</u> land-take of 3,430.3m<sup>2</sup> during construction and a <u>permanent</u> land-take of 928m<sup>2</sup>. There are no rights of common registered against this land, nor registered commoners, therefore the proposed works will not compromise these rights. However, as discussed in Section 3.3, although the rights of common have been extinguished by the failure to register them, the public rights of recreation remain protected in law, separate and distinct from the rights of common<sup>3</sup>. The public has the right to use parts of the common for air and recreation, according to "the Scheme of Management" order (confirmed on 8th March 1910), under the Commons Act 1899.

During construction, the works will <u>temporarily</u> limit the ability for the public to exercise such rights in the full 3,430.3m<sup>2</sup>. As discussed in previous sections, the footprint of the permanent works covers a total of 928m<sup>2</sup> but 854m<sup>2</sup> of these consist of hardstanding and manholes and hatches that will not prevent access to the local community for air and recreation. The total area lost for this purpose is of 74m<sup>2</sup>, below the footprint of the linear defences.

Informal consultation has been undertaken with key stakeholders, including the Kendal Putting Association and (Taylor's) Fairground, and the proposed design is sensitive to their needs and the public right to recreation.

SLDC are the landowners and managers of the common and also maintain the common under a management agreement. SLDC are a key partner in the delivery of the KFRMS and have therefore been consulted regularly throughout the optioneering and design process.

### The interest of the neighbourhood

The proposals are considered to have a net positive impact on the interest of the neighbourhood.

As discussed above, the proposed works will limit the ability for inhabitants of the local neighbourhood to use the 3,430.3m<sup>2</sup> temporary construction area within the common for air and recreation during construction. The works will also permanently reduce the availability of land for air and recreation by 74m<sup>2</sup>.

The proposed works will be designed to reduce flood risk for residential and commercial properties as well as transport infrastructure with clear socio-economic benefits for the area around Gooseholme Park and the broader area surrounding Stock Beck. Some of the residential properties defended by the KFRMS Phase 1 are registered as Listed Buildings (Grade II) and have national significance as cultural heritage designations (refer to Appendix A for location of Listed Buildings in the vicinity of the works proposed on the common). Additionally, as a result of a reduction in flood risk, there are clear benefits for public health and safety within the neighbourhood, this is especially relevant to vulnerable (elderly or disabled, for example) residents.

Moreover, as discussed above, significant consultation has been undertaken with SLDC planning officers throughout the optioneering and design processes to seek to ensure the proposals remain sympathetic to this part of the Kendal conservation area and the amenity value of the Gooseholme Park. SLDC support the current proposals.

## The public interest

The reduction of flood risk is equally relevant at a neighbourhood level and in the broader context of public interest, providing the same socio-economic, cultural heritage and public health benefits.

Section 39 also directs us to consider, at a public interest level, whether the proposed works will negatively impact nature conservation, landscape, rights of access and archaeological/historical value. These topics have been addressed in the Environmental Statement submitted with the planning application for the KFRMS and are summarised below:

<sup>&</sup>lt;sup>3</sup> Norbrook Laboratories & Ors v Carlisle City Council [2014] EACA Civ 54.

### Nature Conservation

The Environmental Statement concluded that the proposed works will **not** negatively impact the nature conservation objectives of the statutory nature conservation designations (River Kent SAC and River Kent and Tributaries SSSI) or have significant permanent impacts on nature conservation in the area, following the implementation of mitigation measures.

The River Kent SAC and River Kent and Tributaries SSSI are noted for supporting internationally important populations of white-clawed crayfish and this species is the primary reason for selection of the site. The site also constitutes a watercourse of plain to montane levels with *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation and supports Freshwater pearl mussel *Margaritifera margaritifera* and Bullhead *Cottus gobio*. None of the features of the SAC and SSSI (designating or otherwise) are expected to be affected by the proposals, provided the recommended mitigation measures are implemented during construction. Implementation of the proposed works, at a local scale, is also not anticipated to significantly negatively affect protected or notable species which may be present during either the construction or operational phases, so long as appropriate reasonable avoidance measures are employed during construction of an Environmental Action Plan managed by the Environment Agency and Construction Environmental Management Plan to be produced by the contractor, comprising best-practice methods of work applied across the site, particularly when working near the SAC/SSSI and during the removal of vegetation and trees.

When considered in context with the wider flood risk management scheme, the overall proposed habitat creation will lead to a net gain in biodiversity along the corridor of the River Kent – including, as a consequence, a resultant local gain at Gooseholme Park. The proposed works also reduces tree loss in Gooseholme Park when compared to earlier iterations of the design. As the works at Gooseholme form part of the wider scheme, they are included in the scheme-wide mitigation proposals to planting 6.7 new trees for every tree removed to construct the Scheme. Consultation has also been undertaken with Kendal Save the Trees', and Friends of Lake District (FoLD) regarding their concerns regarding trees loss and minimised tree loss where possible.

#### Conservation of Landscape (Question 13)

It is considered that the proposals will have a minimal impact on the conservation of landscape.

The new pumping station at Gooseholme Park, and ancillary works, are subterranean and will, aside from areas of hardstanding, have a limited visual presence. Nevertheless, the Environmental Statement identifies that the proposed works will have an impact on the character of the local landscape and townscape through the construction of linear defences and the removal of trees.

To mitigate for these impacts, the following measures will be applied, in-line with recommendations in the Environmental Statement:

- the linear defences and pumping station will be covered with appropriate cladding, in consultation
  with local stakeholders, to best fit the surrounding area. This will ensure the proposals are visually
  assimilated into the existing local townscape (refer to Figure 8 which shows a stone clad flood
  defence wall);
- at Gooseholme Park, the linear defences have been set back from the riverbank to prevent visual severance of the park from the River Kent, a key landscape feature;
- Replacement native and ornamental tree and/or shrub will be planted to replace removed trees; and
- Covers for chambers and manholes have been positioned in areas of existing hardstanding, where possible, to limit the removal of green/grassed areas.

Liaison with SLDC planners, Historic England, FoLD, Kendal Town Council and the OSS throughout this process has ensured that impacts on the local landscape and townscape are minimised and that appropriate mitigation measures are identified.



# Figure 8 Image showing stone cladding likely to be used on flood defence walls at Gooseholme Common

### Protection of public rights of access

The proposals will have a temporary impact on public rights of access to Gooseholme Common but no significant permanent impacts.

Aside from Kendal Putting Association and Taylor's Fair, which have been engaged separately regarding ongoing use of the common, the park is primarily used for walking and for the public to exercise their right to air and recreation. Access to the common is limited by the River Kent at the western boundary and a mixture of wall, mature trees and hedgerow along the eastern boundary. The main access points are from an open area at the northern end of the park and steps at the southern extent of the park.

It is acknowledged that the proposed works will limit the use of Gooseholme Common during the construction of the Scheme, however, this impact will only be temporary in nature and will be limited through the segregation of the park, ensuring that some areas remain accessible during construction.

Moreover, the proposed works have been designed to reduce any permanent impacts as follows:

Although the northern linear defence will cross the north of the common, the proposed works maintain
access from the north via the provision of a 4.2m wide floodgate in that linear defence, sited in-line with
the existing hardstanding path. This floodgate will remain open at all times except when there is a
forecast risk of flooding and for maintenance purposes. An additional 3m wide flood gate will provide
an alternative access across the linear defences and in/out of the common. In addition to these, a new
pedestrian access gate will be installed within the existing post and rail fence, on Thorny Hills. The
flood wall will however result in the loss of 90m<sup>2</sup> of common land;

- At the southern end of Gooseholme Park, the linear defence will tie into the new footbridge which includes up and over ramped access into the common therefore maintaining access. The construction of the new footbridge is not included within this application, as this has been the subject of a separate section 38 consent, granted on 27 August 2020 (ref COM/3236938). There has been an integrated design approach between the proposed flood risk management works and Cumbria County Council's replacement Gooseholme footbridge scheme. Included within that integrated approach is the need maintain the existing access point at the southern end of the park; and
- On the right bank of the River Kent, the proposed linear defences are replacing existing riverside walls, where possible, to minimise the loss of land due to the development.

Historically, when the River Kent is in flood, Gooseholme Park becomes inaccessible due to inundation from both the River Kent and Stock Beck. The provision of the linear defences across the common will defend an area of the park from the River Kent, whilst the installation of the pumps will mean that Stock Beck is able to discharge effectively - instead of surcharging and flooding the common. These measures together will mean that part of the park will remain accessible to the public even during flood conditions, effectively enhancing public access during times where the park is historically inaccessible.

In addition to the above, the proposed works also includes the reinstatement of existing areas of hardstanding, and the replacement of benches, where necessary, which enhance public access and recreational value of the common.

### Archaeological remains and features of historic interest

There are no known archaeological remains or features of historic interest within the common itself, however, the proposed works will help reduce flood risk for nearby cultural heritage receptors such as Listed Buildings and Kendal Conservation Area. The works are located within the Kendal Conservation Area and, as such, consideration of the finish of all visible components of the proposed works has been tailored to match the local historic townscape. Moreover, pre-application engagement was undertaken with the public, Historic England, SLDC, Kendal Civic Society, Kendal Town Council, Kendal Conservation Volunteers, OSS and FoLD regarding the potential impacts of the Scheme on built heritage and archaeology.

The proposed linear flood defences will tie into Stramongate Bridge (outside of the footprint of the Registered Common Land), this will be done via a movement joint. The movement joint allows for thermal expansion or contraction of the wall and will mean that the flood defence and the bridge act independently to each other. The movement joint will be watertight to ensure that there is no seepage of water through the gap between the two structures. In this location, there is already an existing wall that ties into the bridge. This will have no impact on the fabric of the Scheduled Monument but will have a slight impact on its setting. This will be mitigated through the selection of appropriate wall cladding, ensuring it best ties in to the existing setting of the Scheduled Monument.

### Any other matters

### Socio-economic benefits

There are no direct negative impacts from the proposal in socio-economic terms. However, through their contribution towards the wider Kendal FRMS, the works at Gooseholme Park will have an indirect positive impact on the viability, confidence and success of local businesses. This will be a key driver in meeting local policy aspirations to develop employment space for high value business, and to create opportunities for economic growth. The proposals will equally provide indirect public health and wellbeing benefits to the local community by reducing flooding in the Kendal.

#### Public Realm Improvements

The wider Kendal FRMS will deliver environmental improvements, habitat creation and public realm enhancements within the town. Public realm enhancements will include improvements to existing footpaths and cycle ways; installation of some new sections of footpaths and cycle ways and the provision of new seating and signage. This will significantly improve the connectivity between green spaces along the River Kent. The works will mean that there is increased connectivity between Gooseholme Park and the habitat creation areas of Beezon Fields and Mintsfeet to the north.

# 7. Summary

The policy guidance advises that works may be proposed in relation to common land which do not benefit the common but confer some wider benefit on the local community.

The proposed works at Gooseholme Park (both temporary and permanent) will cause temporary disruption to Gooseholme Common and its users by limiting access to the Common during construction and temporarily affecting the local landscape, nature and heritage setting, through the presence of the temporary works and the removal of trees. The works will also lead to the permanent introduction of flood walls and additional areas of hardstanding on Gooseholme Common, reducing the area of land available for use by the public.

However, mitigation measures, such as the use of cladding, tree replanting and minimising the permanent land take of the proposals, have ensured that both temporary and permanent impacts are mitigated. Moreover, the proposals will provide significant benefits to "the public interest" and "the interests of the neighbourhood" by protecting the local community against flood risk whilst ensuring that other local public interests such as the protection of public rights of access and the conservation of the landscape, nature, archaeological remains and features of historic interest are not permanently compromised by the proposals.

Appendix A Proposed Works in Relation to the Common Land Boundary

Appendix B Proposed Works in Relation to the previously understood Common Land Boundary



Capita Real Estate and Infrastructure		Jacobs Engineering Group Inc.
Capita, 7 <sup>th</sup> Floor, Lee House.		5 First Street Manchester M15 4GU
Churchgate House,		
56 Oxford St,		Tel + 44(0)161.235.6000
Manchester,		Fax + 44(0)161.235.6001
M1	6EU	www.jacobs.com
Tel +44 (0)1342 Fax+44 (0)1342 315 927	327161	

www.capita.com