

# High Speed Rail (Crewe – Manchester) Environmental Statement

## Volume 5: Appendix LV-001-OR003

### **Landscape and visual**

Off-route works: Annandale depot

Landscape and visual impact assessment and photomontages

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Department  
for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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# Introduction

This document is the appendix to the Landscape and visual impact assessment for the Annandale depot area (OR003), it comprises four parts:

- a summary of engagement with technical stakeholders (Part 1);
- landscape character assessment (Part 2);
- visual assessment with photomontages (Part 3); and
- assessment matrices (Part 4).

This appendix should be read alongside the Volume 4, Off-route effects Annandale depot, Landscape and visual. Maps referred to throughout this appendix are contained in the Volume 5, Landscape and visual Map Book.

# Part 1: Engagement with technical stakeholders

## 1.1 Introduction

1.1.1 This section describes the engagement that has been undertaken with technical stakeholders in relation to the landscape and visual impact assessment (LVIA) for the Annandale depot area.

**Table 1: Stakeholder engagement**

Stakeholder	Comment	Response
Dumfries and Galloway Council (DGC)	Engagement with Dumfries and Galloway Council (DGC) has been undertaken. The purpose of this engagement was to discuss the assessment methodology, the extent of landscape and visual study area, the extent of the landscape character boundaries and the locations of visual assessment and verifiable photomontage viewpoints.	Specific landscape topic feedback has not been received from DGC.
NatureScot	Email request from HS2 to NatureScot 18 January 2021. Invitation to engage regarding the approach adopted, landscape character areas and proposed view points.	Response 18 January 2021 from NatureScot Area Officer, 'Landscape and visual impact assessment not likely to be of concern to NatureScot as no impacts on National Scenic Areas or other features of national interest anticipated'.

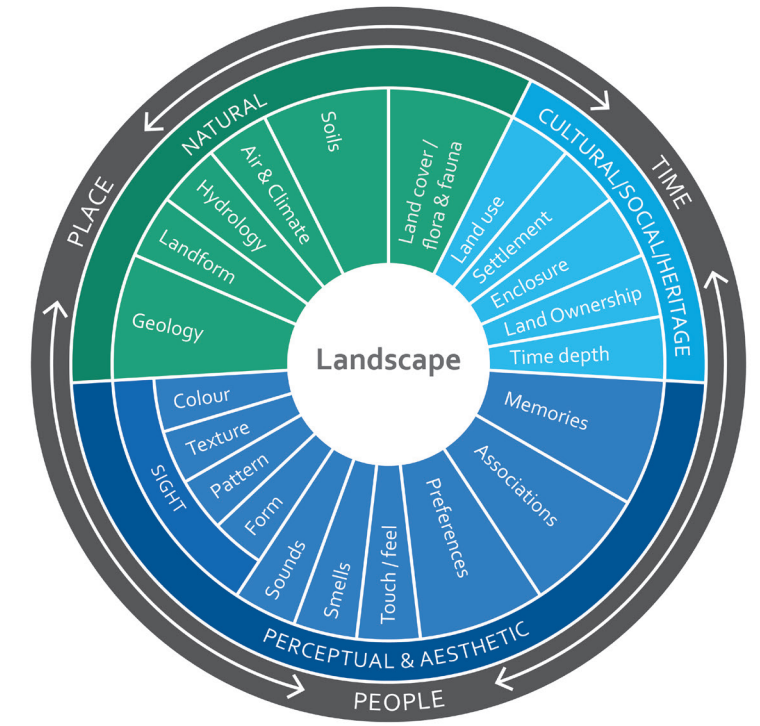
# Part 2: Landscape character assessment

## 2.1 Introduction

2.1.1 This section describes the landscape baseline and assesses the effects on landscape, with reference to the Landscape Character Areas (LCA) defined for the Annandale depot area. A summary of the landscape baseline and significant landscape effects is provided in the Volume 4, Off-route effects report: Annandale depot area, Section 11. The Volume 5, Landscape and visual Map Book Series LV-02 should also be read in conjunction with this section. Elements of landscape are shown in the diagram on the right.

2.1.2 This section is organised as follows:

- information on each LCA within the area including a description of the landscape (with Ordnance Survey (OS) maps and photography to help illustrate character and patterns of land uses and vegetation of the area), as well as an analysis of the value, susceptibility and sensitivity of each LCA. These are ordered from south to north along the route of the Proposed Scheme;
- description of future baseline conditions, where relevant; and
- assessment of the effects of the Proposed Scheme on the landscape at construction, and at year 1, year 15 and year 30 of operation as set out in the Technical Note - Landscape and visual - Approach to landscape susceptibility, value and sensitivity included in the Environment Impact Assessment Scope and Methodology Report (SMR), (see Volume 5, Appendix: CT-001-00001).



Above: The elements of landscape. Diagram is based on 'An Approach to landscape character assessment' Natural England, 2014

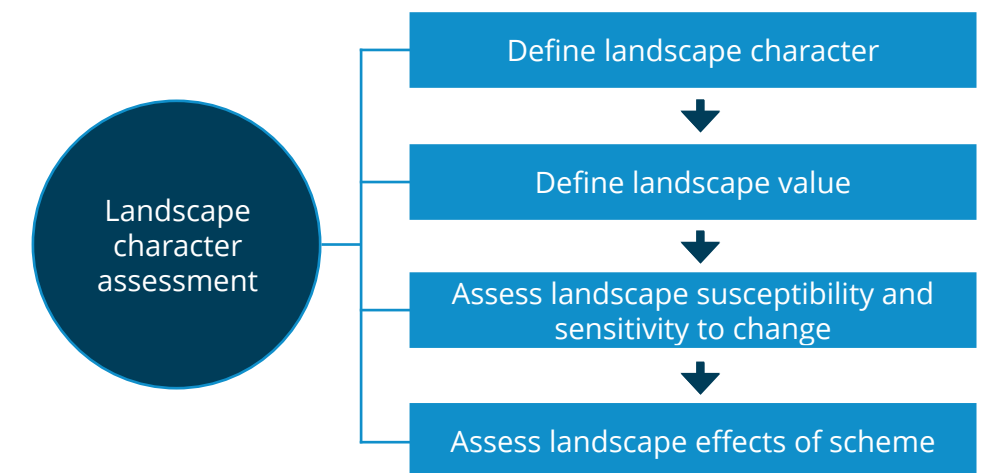
## 2.2 Approach to landscape characterisation

2.2.1 The LCA have been determined as part of an integrated approach to environmental characterisation in collaboration with other topics including heritage and ecology, with reference to a number of published studies at the national, county and district level. A wide variety of spatially referenced data were also reviewed in developing the landscape characterisation, including existing landscape/ townscape characterisations, historic landscape characterisation, Phase 1 Habitat Survey, geological and hydrological data and aerial photography. Such data have also been used, along with field survey, to consider sub-divisions to existing published LCAs, where appropriate. These sub-divisions have been made on the basis of scale and for appropriate recording of specific landscape variations and susceptibilities to change resulting from the Proposed Scheme.

2.2.2 The landscape character context is illustrated on map LV-02-ORW (Volume 5, Landscape and visual Map Book). The LCA identified and developed for the Annandale depot area are summarised below:

- Coastal Flats: Dumfries and Galloway: a low-lying, level or gently undulating landscape, rising northwards from the estuary and predominantly rural in character;
- River Sark Flats: a gently undulating, rural, river valley landscape with open views and wide horizons;
- Coastal Plateau: Dumfries and Galloway: a largely level or gently rolling landscape, falling from a higher upland fringe in the north, towards Solway Firth in the south;
- Southern Flow Plateau: a largely level or gently undulating landscape, rising from Solway Firth in the south-west to the higher upland fringe in the north-east; and
- Narrow Wooded Kirtle Water Valley: a long, linear LCA comprising the steep-sided and well-wooded land either side of the narrow, meandering channel of Kirtle Water.

2.2.3 Descriptions of all the LCA identified within the Annandale depot area are provided in the following sections. The LCA are shown in the Map Series LV-02. A summary description of the LCA most likely to be affected is included in the Volume 4, Off-route effects report: Annandale depot area (OR003), Section 11.

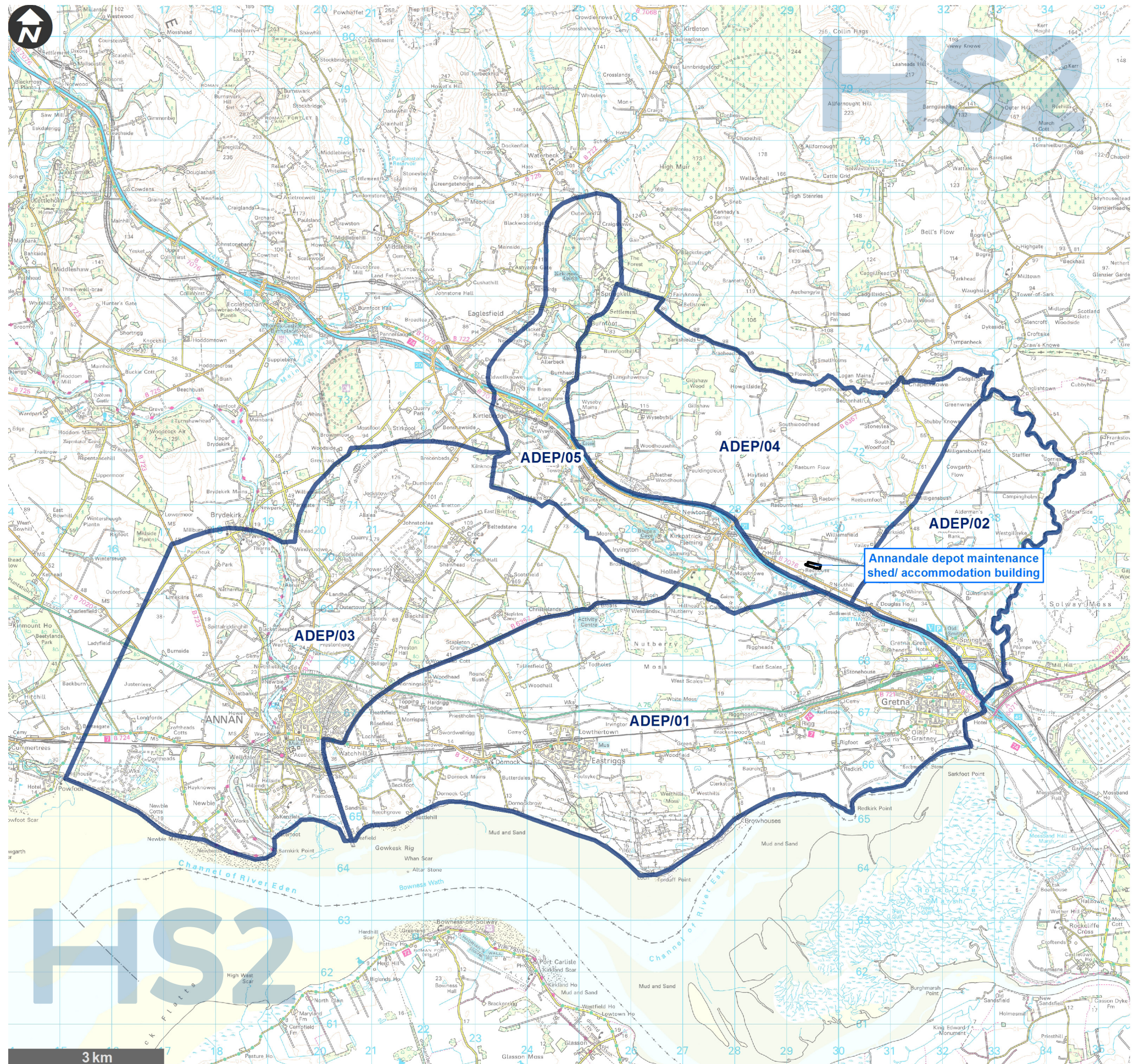


Above: The landscape assessment process

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# Overview of landscape character areas within Annandale depot area



**Landscape character areas assessed in this community area**

- ADEP/01 - Coastal Flats: Dumfries and Galloway
- ADEP/02 - River Sark Flats
- ADEP/03 - Coastal Plateau: Dumfries and Galloway
- ADEP/04 - Southern Flow Plateau
- ADEP/05 - Narrow Wooded Kirtle Water Valley

Landscape character areas (LCA)

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# Coastal Flats: Dumfries and Galloway LCA

## Landscape character baseline description

This LCA is situated on the northern shore of the Solway Firth and to the west of the A74(M). This is a low-lying, level or gently undulating landscape, rising northwards from the estuary and predominantly rural in character.

The main land use is grazing pasture with some arable farming. Fields are regularly shaped, small to medium-scale and bounded by drainage ditches, intermittent hedgerows and fences. Strong on-shore winds result in isolated woodland blocks and, wind-stunted trees. Land drainage is generally poor and there are areas of mossland with some areas of active peat extraction.

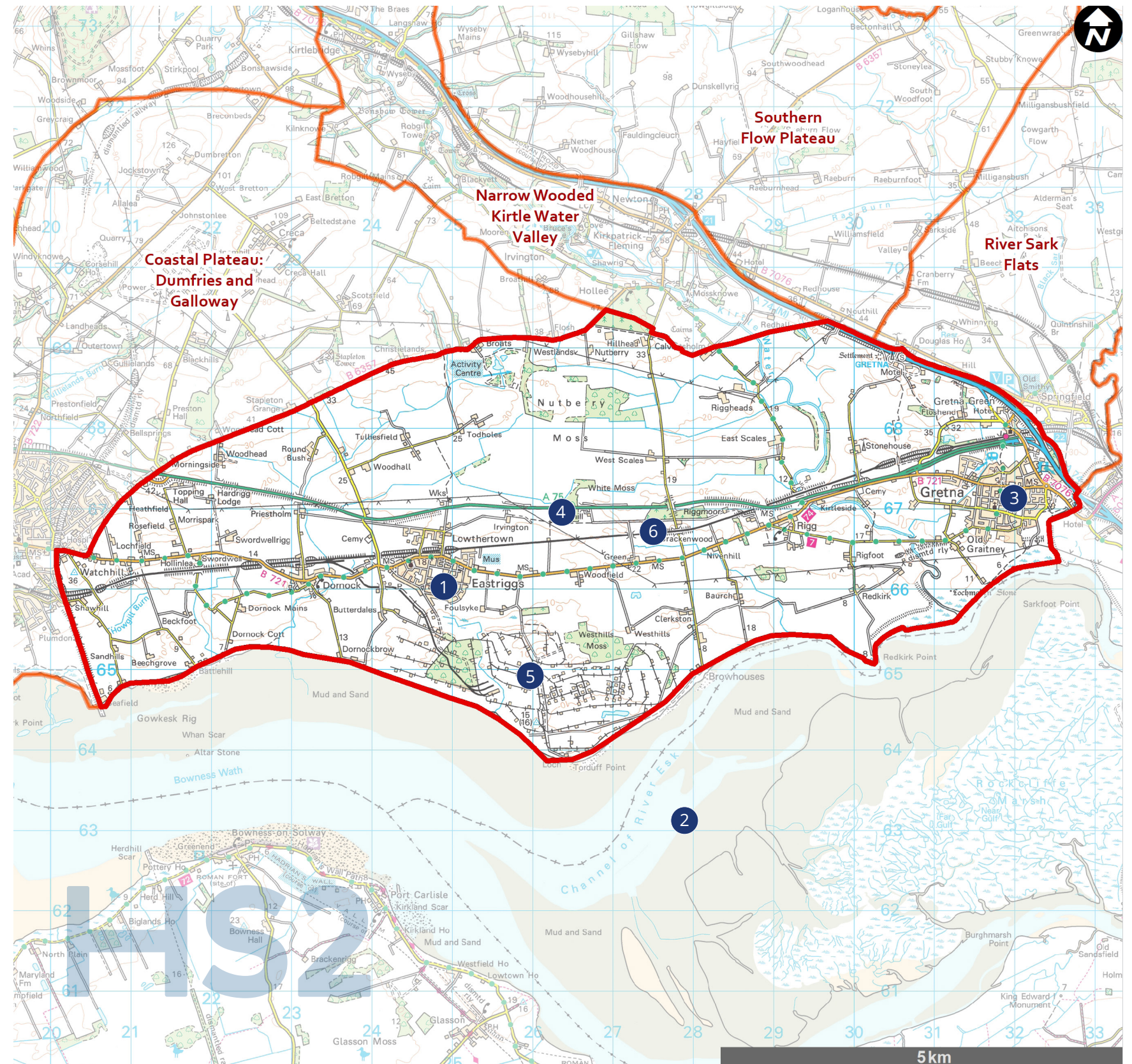
The low-lying terrain allows for long views with wide horizons. Views to the south, extend over Solway Firth to the Cumbrian Fells. Isolated farms and occasional caravan parks are dispersed evenly across the landscape, with larger settlements at Eastriggs and Gretna. Sparse vegetation cover at settlement edges results in an abrupt interface with the surrounding rural landscape.

Infrastructure elements including the Carlisle Line, linking Glasgow to Carlisle via Kilmarnock and Gretna, the A75 and the A74(M), are low-lying within the landscape. National Cycle Network (NCN) route 7 follows local coastline roads between Annan and Gretna and a number of core paths recognised by Dumfries and Galloway Council are present close to Solway Firth. Taller detracting elements such as overhead power lines are visually prominent, particularly in skyline views. The former 'Devil's Porridge' munitions works at Eastriggs occupies a large area south of the B721 Annan Road north of Solway Firth, though it has a limited influence on landscape character beyond its immediate surroundings. Prehistoric archaeology comprises largely buried features relating to settlements and enclosures, with some Roman remains near Annan. The site of the Battle of Sark is south-west of Gretna between the courses of Kirtle Water and the River Sark.



### Key landscape characteristics

An exposed and largely rural, low lying landscape, with some gentle undulations. There are long views south over Solway Firth to the Cumbrian Fells imparting a strong sense of place. Fields of improved pasture are small to medium scale with areas of mossland and peat. Away from main settlements and transport routes, vegetation is sparse, and the landscape is open.



- Proposed Scheme
- LCA boundary
- 1 Eastriggs
- 2 Solway Firth
- 3 Gretna
- 4 A75
- 5 Devil's Porridge munitions range
- 6 Carlisle Line

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## Key landscape value attributes

Key landscape value attributes of the Coastal Flats: Dumfries and Galloway LCA are set out below, interpreting landscape baseline information on the previous page and drawing on findings from some limited field surveys.



### Aesthetic

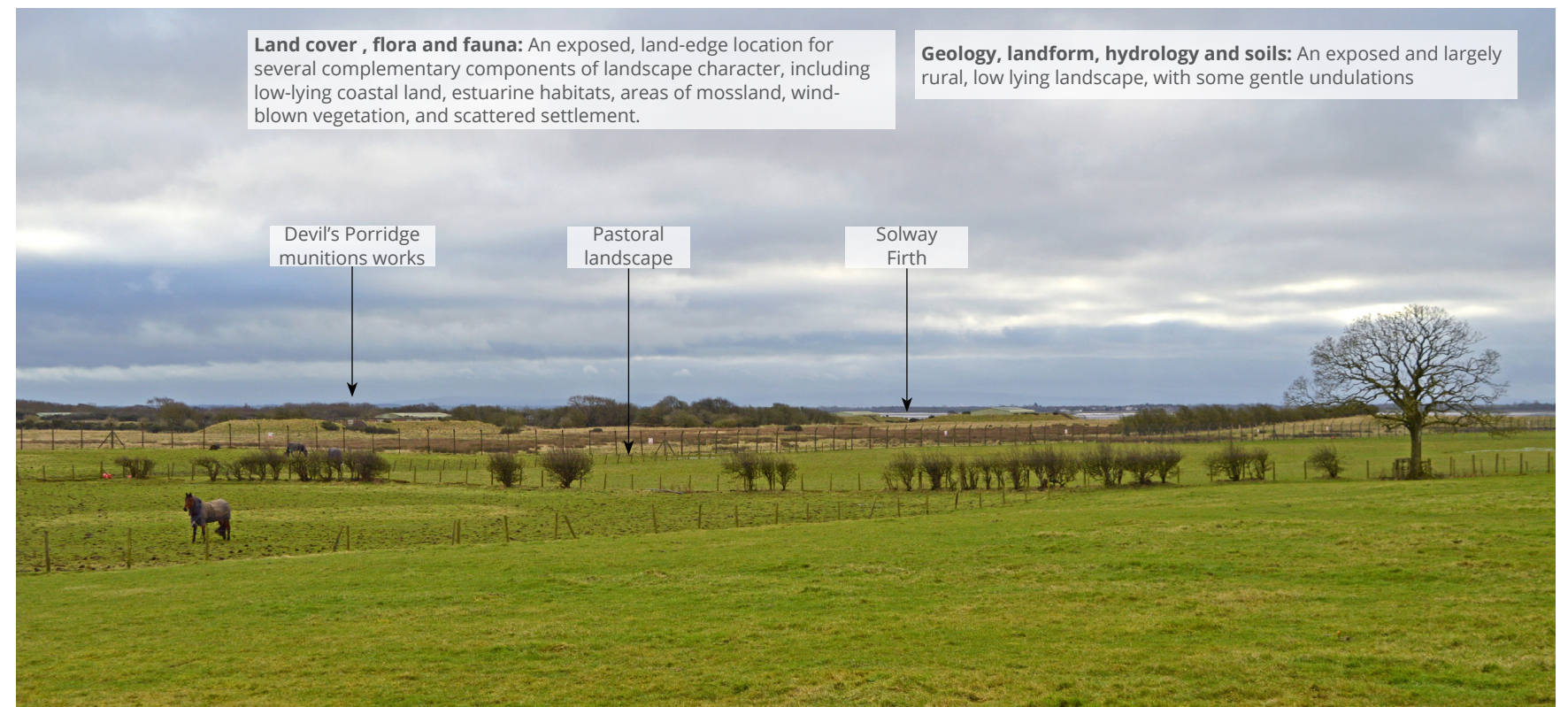
A low-lying, coastal landscape with dramatic skies and wide estuarine views conveying a strong sense of naturalness, dominated by the ebb and flow of the tide. Small settlements, dispersed farms and wind stunted trees enhance the areas' aesthetic value and feeling of rurality. More developed areas close to transport routes retain long distance views and an experience of the estuarine setting.



### Cultural, social and historic

A pastoral landscape overlain by evidence of earlier industrial works and dramatic 20th century events. This area of northern Solway coast was once in military use, and as a result, many people came to live and support the effort to protect British shores in two world wars. Their stories and those of firing ranges and munitions factories are recalled in the Devil's Porridge museum in Eastriggs.

## Key landscape characteristics susceptible to the Proposed Scheme



### Overall landscape value

An exposed, land-edge location in which settlement is scattered between complementary components of landscape character, including low-lying coastal land, estuarine habitats and areas of mossland. Wind-blown vegetation is characteristic. Transport and power infrastructure cross the LCA in a narrow corridor which although noticeable, does not adversely affect landscape value. The area retains a sense of remoteness and tranquillity. The low-lying and open character of the landscape coupled with sparse vegetation cover, results in wide views to distant skylines. The value of this LCA is therefore **medium**.

### Overall landscape susceptibility

The coastal location, limited vegetation cover and scattered settlement, create an open landscape with a sense of remoteness. Open views and wide horizons are susceptible to change from the introduction of large-scale infrastructure. However, the presence of existing road and rail infrastructure, and former industrial and defence sites lower levels of susceptibility. The landscape therefore has a **medium** susceptibility to change resulting from the Proposed Scheme.

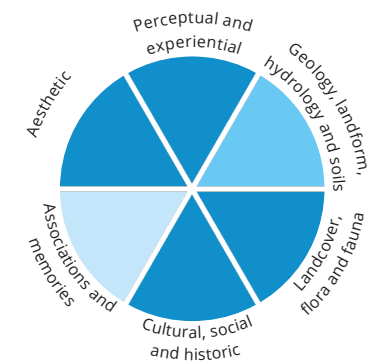
### Future baseline

There are no committed developments that will affect the landscape susceptibility to the Proposed Scheme.

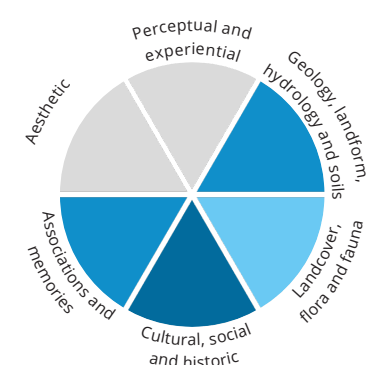
### Overall landscape sensitivity

The scenic qualities, wide skyline views, historic defence sites and presence of infrastructure elements result in an overall **medium** sensitivity of this LCA.

### Value



### Susceptibility



### Value and susceptibility key





## Magnitude of change and level of effect

### Construction

A small proportion of the LCA will be directly affected by the presence of construction traffic using the slip road off the A47(M) and a turning area at Gretna Services fuel station. However, the presence of construction traffic will be in keeping with the existing character of the LCA in the vicinity of the A47(M). There will be indirect and barely noticeable effects to the setting of the north-east boundary of the LCA due to the presence of construction activity to the north-east of the A47(M), beyond the boundary of the LCA. The magnitude of change will be **negligible**.

Effects will be **negligible (non-significant)**.

### Operation year 1

There will be no direct landscape effects for this LCA as a result of operation of the Proposed Scheme. The Proposed Scheme will be located beyond the boundary of the LCA, to the east of the A74(M) in the adjacent River Sark Flats LCA and Southern Flow Plateau LCA. Indirect landscape effects to the setting of the north-east boundary of the LCA will be largely contained by intervening vegetation. The magnitude of change will be **negligible**.

Effects will be **negligible (non-significant)**.

### Operation year 15

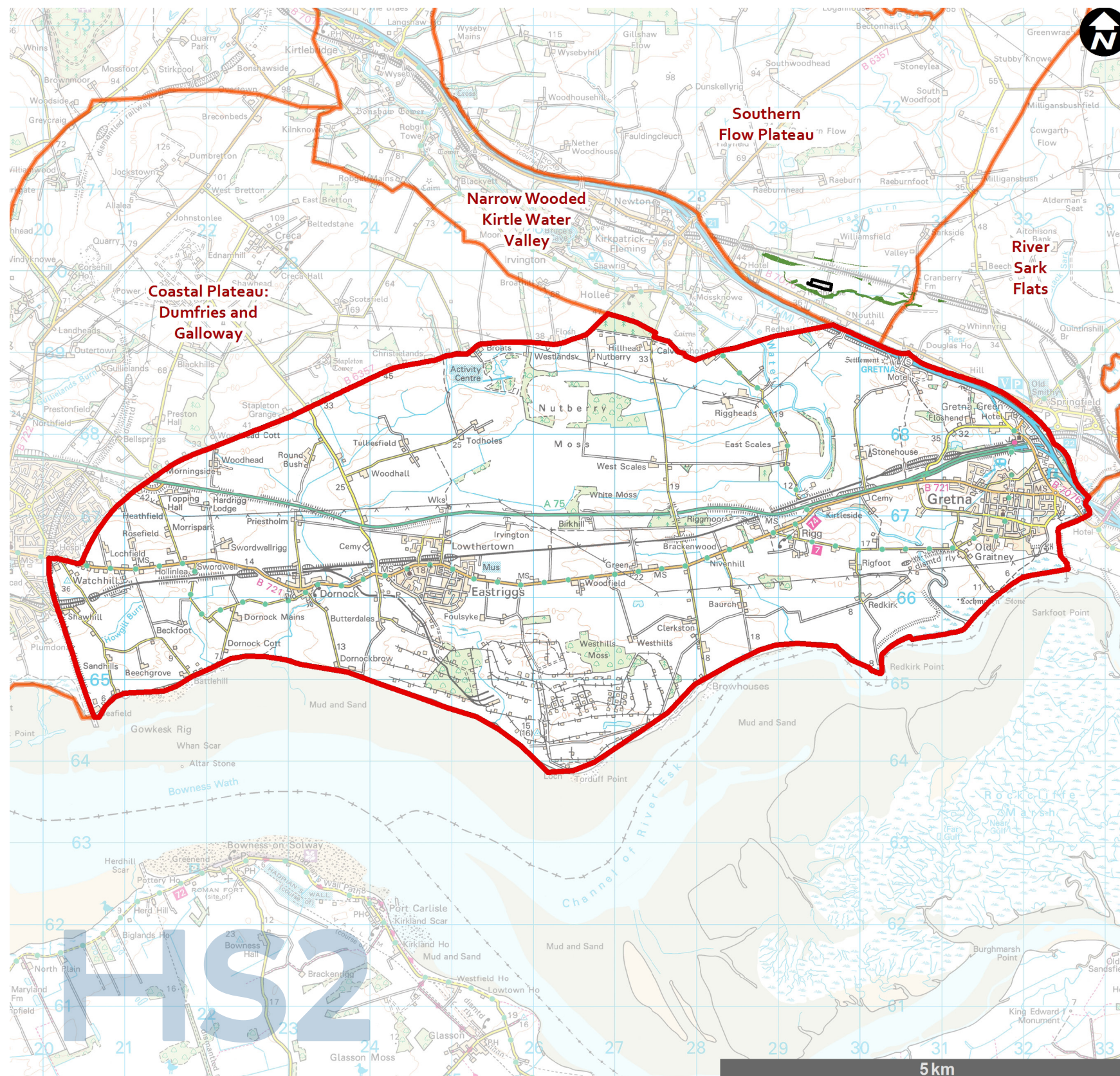
There will be no direct landscape effects for this LCA. Indirect landscape effects to the setting of the north-east boundary of the LCA, will be largely contained by the growth of intervening vegetation and maturing mitigation planting in the adjacent River Sark Flats LCA and Southern Flow Plateau LCA. The magnitude of change will remain **negligible**.

Effects will be **negligible (non-significant)**.

### Operation year 30

There will be no direct landscape effects for this LCA. Indirect landscape effects to the setting of the north-east boundary of the LCA will be contained by intervening vegetation and mature mitigation planting in the adjacent River Sark Flats LCA and Southern Flow Plateau LCA. The magnitude of change will remain **negligible**.

Effects will be **negligible (non-significant)**.



### Cumulative assessment (construction and operation)

**Construction:** There are no developments which will result in cumulative construction effects.

**Operation:** There are no developments which will result in cumulative operation effects.

No cumulative effect in construction and operation.

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# River Sark Flats LCA

## Landscape character baseline description

The River Sark Flats LCA lies north of the A74(M) and Gretna Green and to the west of the River Sark on the Scotland-England border. The terrain is level or gently rolling, rising from Gretna to the higher flow plateau in the north.

There is a simple pattern of large fields enclosed by hedgerows or fences. Cattle grazing on improved pasture predominates, with some arable fields. Settlement is limited to a few large farms and cottages that are dispersed evenly across the landscape. The route of the West Coast Main Line (WCML) crosses the southern part of this LCA, with the Carlisle Line diverging from the WCML in the south-west of the LCA and continuing westwards towards Annan. The road network is sparse. The B7076 Glasgow Road runs close to the south-western boundary of the LCA, with the A74(M) immediately beyond in the adjacent Coastal Flats LCA. Both road and rail infrastructure are well-integrated into their rural setting by the gently undulating landform and existing vegetation. As a result, infrastructure elements are not prominent within the LCA. NCN route 7 follows close to the eastern boundary of the LCA and a number of core paths, recognised by DGC, are present closer to Gretna. DGC also promotes other off and on-road walking routes, including the Quintinshill and River Sark circular route, in local tourism brochures.

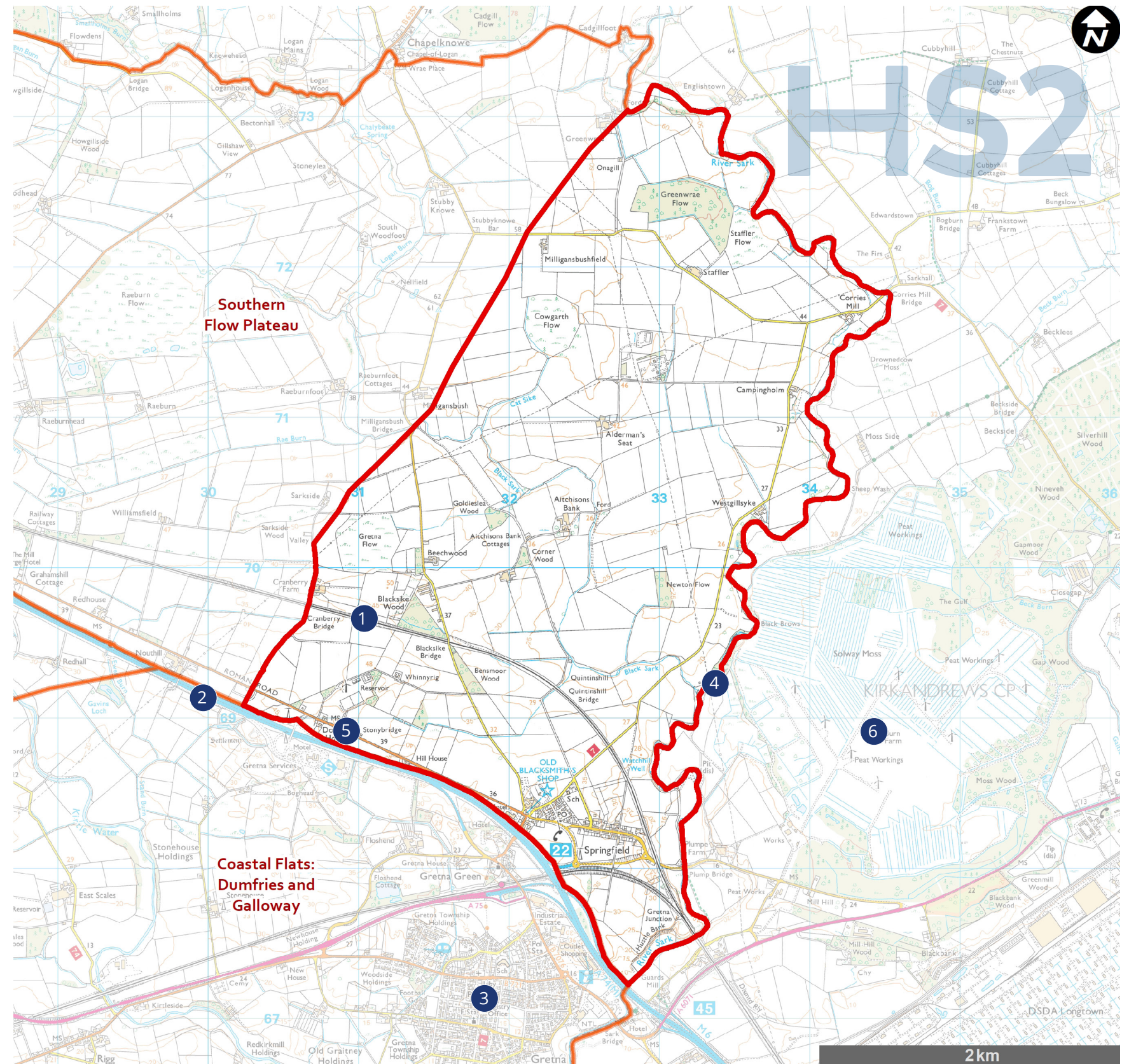
Pockets of tranquillity are found to the north of this LCA, and in particular along the course of the River Sark and its tributary burns, which are often marked by broadleaved trees, scrub and narrow woodlands. Hedgerow trees can be locally distinctive and strong onshore winds create wind-bent trees in the more exposed lower-lying land.

North of the WCML, views are long and wide with expansive skies. Where present, narrow shelterbelts and woodlands curtail the sense of openness. Two overhead power lines crossing the LCA and connecting to a substation on the higher land are a prominent feature in many views. The wind turbines associated with Beck Burn windfarm at Solway Moss are noticeable in views to the east. In the south, views extend to Solway Firth and beyond to the Cumbrian Fells.



### Key landscape characteristics

An exposed and largely rural, low-lying landscape with some gentle undulations. Improved pasture and cattle grazing are the predominant land uses on large scale fields. The course of the River Sark is often marked by broadleaved vegetation. There are long views to the south over Solway Firth to the Cumbrian Fells. Although power lines and wind turbines are evident, the landscape imparts a sense of tranquillity.



- Proposed Scheme
- LCA boundary
- 1 WCML
- 2 A74(M)
- 3 Gretna
- 4 River Sark
- 5 B7076 Glasgow Road
- 6 Beck Burn windfarm

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## Key landscape value attributes

Key landscape value attributes of the River Sark Flats LCA are set out below, interpreting landscape baseline information on the previous page and drawing on findings from limited field surveys.



### Aesthetic

A broad, low-lying river valley landscape of gently rising terrain with wide views. Shelterbelts, narrow woodland and occasional wind stunted trees are viewed against the horizon. Dispersed cottages and farms enhance the rural and tranquil aesthetic value away from transport routes. Long distance views extend over Solway Firth to the Cumbrian Fells.



### Land cover, flora and fauna

This is a predominantly intact pastoral landscape and with limited access along local lanes. Some habitats of value, including mossland, mature woodland and riparian vegetation add to landscape value. However, the presence of major infrastructure in the south of the LCA reduces tranquillity and sense of place.

## Key landscape characteristics susceptible to the Proposed Scheme



### Overall landscape value

This is a largely intact pastoral landscape within the valley of the River Sark. Tributary burns flowing into the River Sark cut through the largely level or gently undulating farmland, and their courses are often marked by broadleaved trees, scrub and narrow belts of woodland.

Settlement is sparse, and road and rail infrastructure are well integrated into their rural setting. Overhead power lines and a substation introduce some detracting elements. Lack of development and limited vegetation cover, allows for broad views and wide horizons which, depending on elevation and location, can extend southwards to Solway Firth and the Cumbrian Fells. Although power lines and wind turbines are evident, the landscape has a sense of tranquillity and remoteness away from road and rail infrastructure. The value of this LCA is therefore **medium**.

### Overall landscape susceptibility

The wide horizons and expansive views, associated with the agricultural and river valley landscape, are susceptible to change arising from the Proposed Scheme. The presence of some detracting elements and the presence of rail infrastructure, moderates overall susceptibility. The landscape therefore has a **medium** susceptibility to change resulting from the Proposed Scheme.

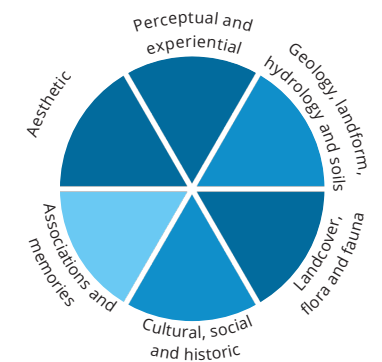
### Future baseline

There are no committed developments that will affect the landscape susceptibility to the Proposed Scheme.

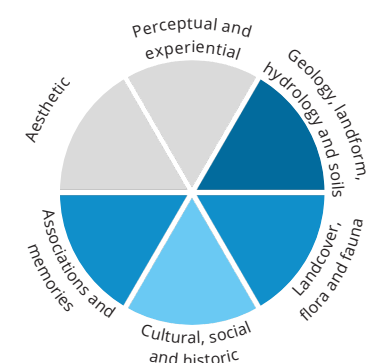
### Overall landscape sensitivity

The scenic qualities, the sense of relative remoteness despite proximity to transport infrastructure and the relationship of the pastoral and semi-natural river valley landscape are sensitive to change arising from the Proposed Scheme. The overall sensitivity of this LCA is **medium**.

### Value



### Susceptibility



### Value and susceptibility key





# Magnitude of change and level of effect

## Construction

The southern section of this LCA will be directly affected by construction works in connection with modifications to WCML, the construction of the southern reception tracks, Cranberry Farm accommodation overbridge, a pumping station and associated storage tank. Construction activity in the adjacent Southern Flow Plateau LCA will indirectly affect the wider setting of this LCA. The scale of construction activity and changes to landform and landcover will affect the character of the predominantly rural setting and gently rising landform, across the southern proportion of the LCA. However, construction activity will be in the context of existing road and rail infrastructure elements in the southern part of the LCA. The presence of construction activity will reduce the extent of local open access land although no core paths will be affected or diverted. Lower levels of tranquillity in the vicinity of WCML and the B7076, will be further reduced by the presence of construction vehicle movements and activities associated with Quintinshill sidings satellite compound. Lighting at Quintinshill sidings satellite compound in the context of a largely unlit landscape, and the presence of construction activity will be out of character with the existing rural landscape setting. The magnitude of change will be **medium**.

Effects will be **moderate adverse (significant)**.

## Operation year 1

The southern section of this LCA will be directly affected by the introduction and operation of the Proposed Scheme between WCML and the B7076. The wider setting of this LCA will also be indirectly affected by the introduction of the Proposed Scheme including Annandale depot, in the adjacent Southern Flow Plateau LCA. Modification to the WCML, a pumping station and associated storage tanks, the southern reception tracks and Cranberry Farm accommodation overbridge will introduce new large-scale elements into the rural landscape. The loss of some agricultural land and associated hedgerows, individual mature trees and small areas of woodland during construction will affect both the landscape pattern and scenic quality. Tranquillity will be further reduced in the vicinity of the new railway infrastructure which will be at a larger scale than the existing WCML. However, the southern reception tracks will be in cutting and partially integrated into the LCA by landscape earthworks. Newly planted mitigation planting will not be sufficiently mature to provide any landscape integration in year 1. Train movements will be in the context of existing train movements along the WCML. There will be indirect effects as a result of lighting in the vicinity of Annandale depot which will result in a noticeable change to the landscape character within a part of the LCA. The presence of the Proposed Scheme will result in a noticeable change to the landscape character within a proportion of the LCA. The magnitude of change will be **medium**.

Effects will be **moderate adverse (significant)**.

## Operation year 15

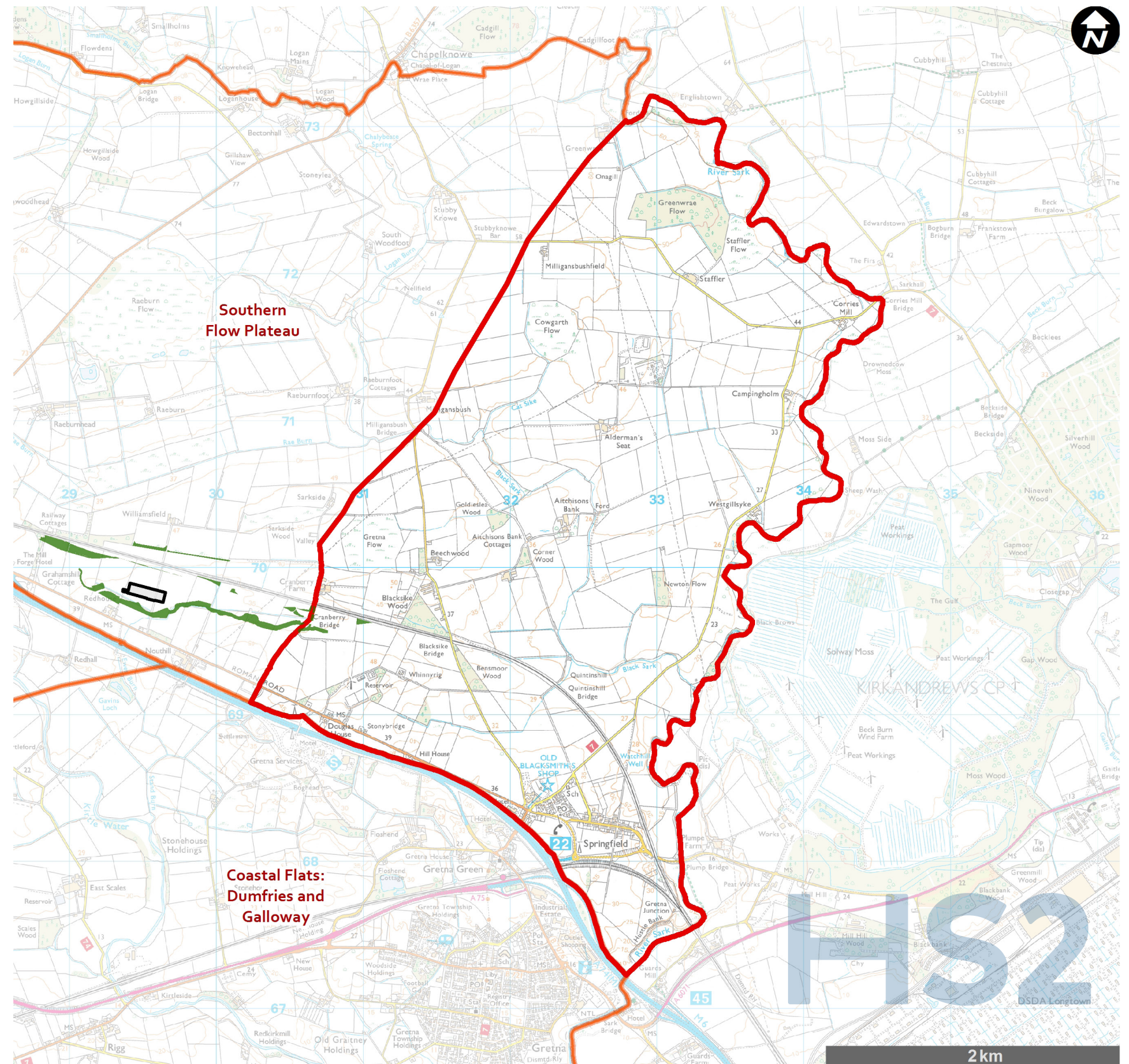
Maturing landscape mitigation planting, hedgerow and grassland habitat creation will assist in the integration of the Proposed Scheme into its landscape context. The large-scale Annandale depot, in the adjacent Southern Flow Plateau LCA, will continue to indirectly affect the wider setting of this LCA. The magnitude of change will reduce to **low**.

Effects will be **minor adverse (non-significant)**.

## Operation year 30

The greater maturity of the landscape mitigation planting will provide effective integration of structures into the landscape for elements within this LCA. Annandale depot, in the adjacent Southern Flow Plateau LCA, will also be partially integrated into its landscape setting. However, due to its scale, the depot will continue to indirectly affect the wider setting of this LCA. The magnitude of change will therefore remain **low**.

Effects will be **minor adverse (non-significant)**.



## Cumulative assessment (construction and operation)

**Construction:** There are no developments which will result in cumulative construction effects.

**Operation:** There are no developments which will result in cumulative operation effects.

No cumulative effect in construction and operation.

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# Coastal Plateau: Dumfries and Galloway LCA

## Landscape character baseline description

This LCA comprises land to the north of Solway Firth, extending northwards from south-west of Annan to the west of Kirkpatrick-Fleming. The terrain is largely level or gently rolling, falling from a higher upland fringe in the north, towards Solway Firth in the south.

Improved pasture predominates, interspersed with some arable land. Fields are typically small to medium scale and regularly shaped. Field boundaries are largely fenced, with hedgerows along rural lanes. In areas of more varied terrain, rough pasture is enclosed by drystone dykes and there are some low-lying areas of mossland and peat extraction. Large farms are dispersed evenly across this landscape, typically situated at the end of a network of straight lanes leading off main roads.

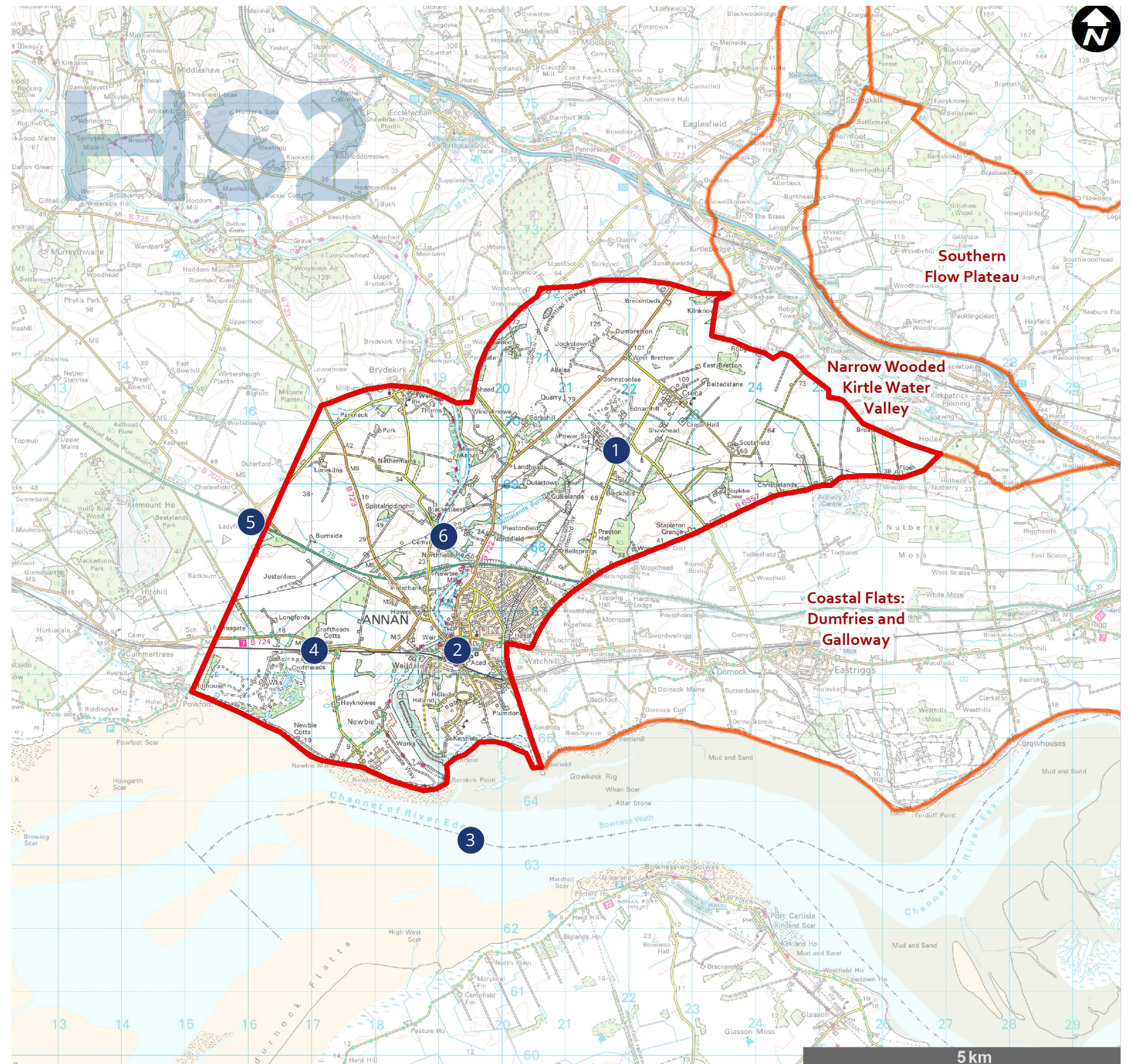
The town of Annan lies in the south-west of the LCA on the River Annan, which flows north-south to Solway Firth. Transport corridors largely buffer the town from the rural setting, with the Carlisle Line from Gretna to Kilmarnock railway in the south and the A75 immediately north. NCN route 7 passes through Annan and follows the coast to the west. A number of core paths, recognised by DGC, are present including part of the Annandale Way long distance footpath. This route, designated as one of Scotland's Great Trails, follows the comparatively well-wooded course of the river through the LCA. The presence of industrial elements including the former Chapelcross power station north-east of Annan with its converging power lines, and works at Newbie on the Solway, west of River Annan, are prominent features in the landscape.

The terrain of the plateau and sparse vegetation cover allows for wide horizons and long views, some extending beyond Solway Firth to the Cumbrian Fells. Individual wind-blown trees are focal features in the predominantly open landscape.



### Key landscape characteristics

This is a low-lying rural landscape where vegetation cover allows open views and wide horizons. Beyond the town of Annan, settlement is sparse. Industrial elements are few, but they form prominent features in the low-lying landscape. Although infrastructure is close to Annan, it is well-integrated into the rural-urban setting. Beyond the town, there is an overall sense of remoteness and tranquillity.



- Proposed Scheme
- LCA boundary
- 1 Former Chapelcross Nuclear Power Station
- 2 Annan
- 3 Solway Firth
- 4 Carlisle Line
- 5 A75
- 6 River Annan

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## Key landscape value attributes

Key landscape value attributes of the Coastal Plateau: Dumfries and Galloway LCA are set out below, interpreting landscape baseline information on the previous page and drawing on findings from limited field surveys.



### Geology, landform, hydrology and soils

This is an area with a moderate level of scenic attractiveness, with typically expansive skies despite some large-scale detracting elements. Long views extend to Solway Firth and beyond to the Cumbrian Fells on clear days. The River Annan forms an attractive wooded buffer to the western extent of Annan.



### Perceptual and experiential

There is an apparent sense of remoteness and solitude resulting from low density development, wide horizons and long views. However, taller infrastructure elements are prominent.

## Key landscape characteristics susceptible to the Proposed Scheme



### Overall landscape value

This is a raised plateau landscape located between low-lying coastal flats in the south and higher upland fringes to the north. Roads and railway infrastructure elements on the edge Annan are well integrated into the landscape. Beyond the town, the perception of remoteness within the LCA is reinforced by low density of development allowing uninterrupted long views and wide horizons in which taller infrastructure elements are prominent. Beyond the well-wooded river valley, except for small pockets of woodland and lane-side hedges, vegetation cover is relatively sparse. The value of this LCA is **medium**.

### Overall landscape susceptibility

The LCA is predominantly open, and low-lying, with a few small woods and shelterbelts. Beyond the settlements, there is a sense of remoteness and tranquillity. However the presence of existing industrial elements and infrastructure means that the LCA has some potential to accommodate change arising from construction and operation of the Proposed Scheme. The susceptibility of this LCA is **medium**.

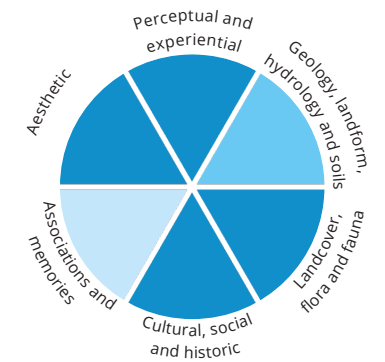
### Future baseline

There are no committed developments that will affect the landscape susceptibility to the Proposed Scheme.

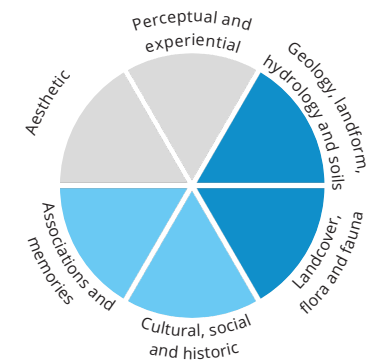
### Overall landscape sensitivity

The scenic qualities of wide horizons and a sense of apparent remoteness, co-existing with the presence of some existing industrial and infrastructure elements results in an overall **medium** sensitivity for this LCA.

### Value



### Susceptibility



### Value and susceptibility key





# Magnitude of change and level of effect

## Construction

There will be no direct or indirect landscape effects on the LCA as a result of the construction of the Proposed Scheme. Construction activity will be located to the east, beyond the boundary of the LCA, with construction activity screened by intervening terrain and vegetation. The magnitude of change will be **negligible**.

Effects will be **negligible (non-significant)**.

## Operation year 1

There will be no direct or indirect landscape effects on this LCA as a result of operation of the Proposed Scheme. The Proposed Scheme will be located beyond the boundary of the LCA and landscape effects will be contained by intervening terrain and mature vegetation. The magnitude of change will be **negligible**.

Effects will be **negligible (non-significant)**.

## Operation year 15

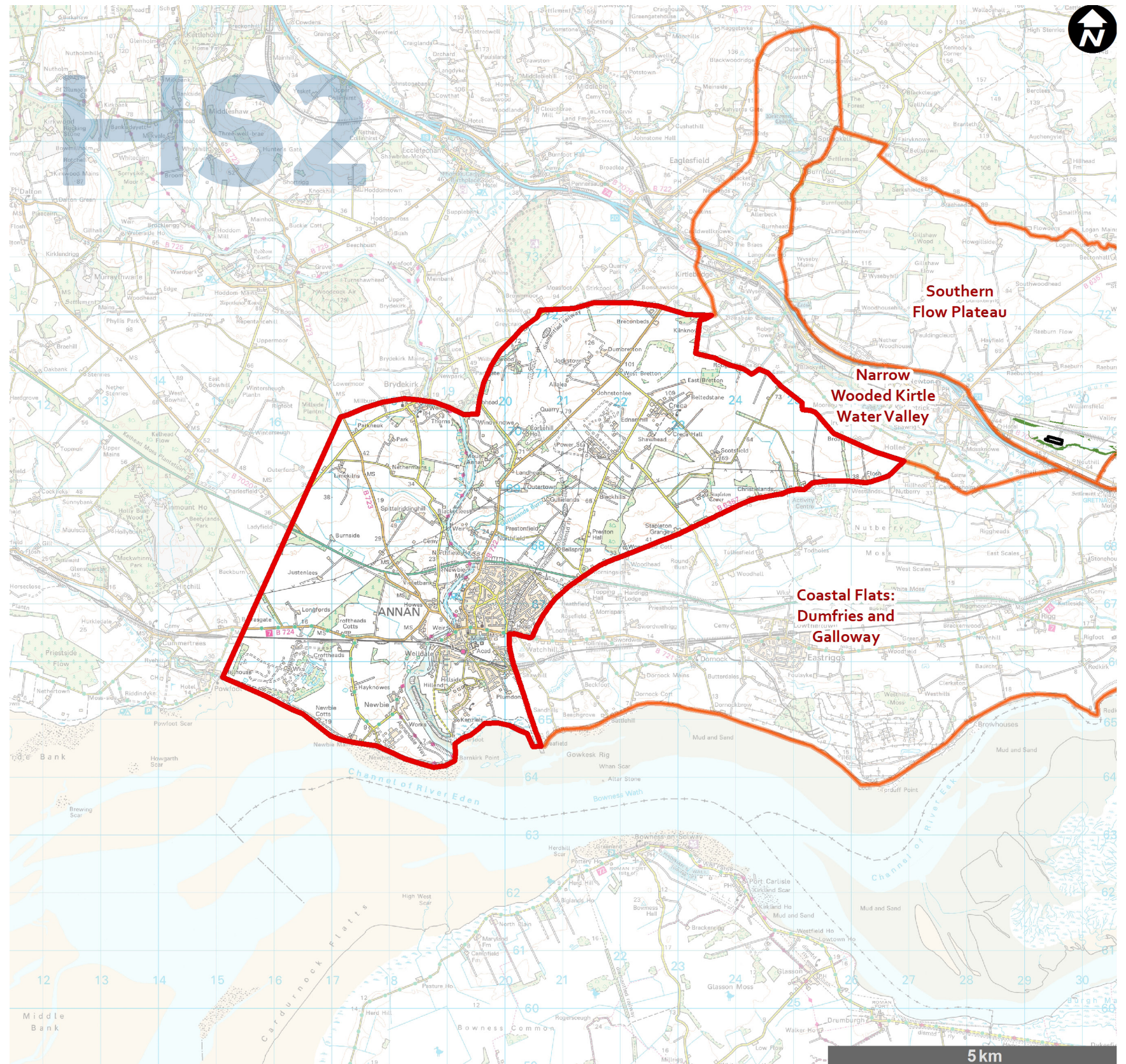
There will be no direct or indirect landscape impacts for this LCA. The magnitude of change will remain **negligible**.

Effects will be **negligible (non-significant)**.

## Operation year 30

There will be no direct or indirect landscape impacts for this LCA. The magnitude of change will remain **negligible**.

Effects will be **negligible (non-significant)**.



## Cumulative assessment (construction and operation)

**Construction:** There are no developments which will result in cumulative construction effects.

**Operation:** There are no developments which will result in cumulative operation effects.

No cumulative effect in construction and operation.

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# Southern Flow Plateau LCA

## Landscape character baseline description

This LCA comprises land to the north-west of Kirkpatrick-Fleming and the A74(M). The terrain is largely level or gently undulating, as it rises from Solway Firth in the south-west to the higher upland fringe in the north-east.

This is a predominantly rural landscape of medium-scale fields of grazing pasture with some arable farming. Field boundary hedgerows line the minor roads, though elsewhere fields are delineated by post and wire fences. To the north of the LCA, plantation woodlands and shelterbelts, including some ancient woodlands, are important focal points in this rural landscape, although in the south, woodland cover is limited. Many small burns, areas of standing water, marshy pastures and raised bogs add to the biodiversity and visual interest of the LCA. Of particular note are Raeburn Flow Site of Special Scientific Interest (SSSI) and Springkell Non-Inventory Designated Landscape.

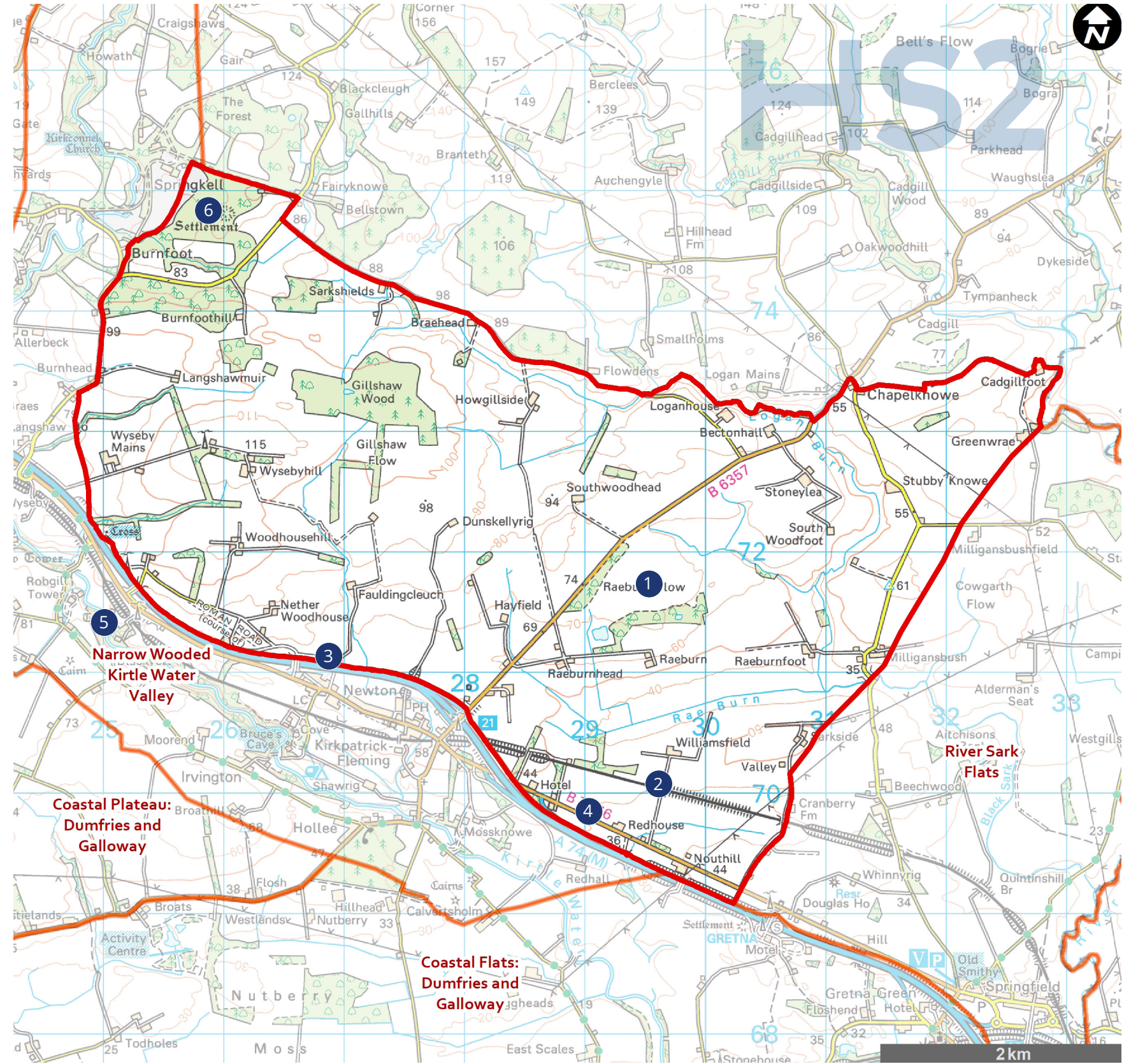
Settlement consists of large farms dispersed throughout the landscape. Listed farmhouses and a listed barn make a limited contribution to landscape character due to their disparate locations within the LCA. The road network is sparse. Much of the road and rail transport infrastructure is located at the south western edge of the LCA; the B7076 and the A74(M) lie close to WCML. WCML is in shallow cutting and is well integrated into the landscape by lineside vegetation and woodland blocks. Access to farmhouses and cottages is via local lanes and unsurfaced roads. Two overhead power lines cross the north and south eastern extents of the LCA. To the north, away from the B7076 and the WCML, tranquillity levels are high and the expansive and open views across the landscape create a perception of remoteness.



Prominent coniferous shelterbelts

### Key landscape characteristics

This is a rural landscape with a strong perception of remoteness due to the sparsity of settlement and limited road network. Woodland including plantation, ancient woodlands and shelterbelts are strong features within the low lying and largely undeveloped landscape. The presence of burns, raised bogs and standing water add to the biodiversity value of the landscape. Tranquillity levels are higher to the north of the LCA.



- Proposed Scheme
- LCA boundary
- 1 Raeburn Flow Site of Special Scientific Interest
- 2 WCML
- 3 A74(M)
- 4 B7076
- 5 Kirtle Water
- 6 Springkell

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## Key landscape value attributes

Key landscape value attributes of the Southern Flow Plateau LCA are set out below, interpreting landscape baseline information on the previous page and drawing on findings from field surveys.



### Aesthetic

Land use, woodland, watercourses and habitats of value combine to create a moderately attractive rural landscape, with some locally detracting elements. Expansive skies and long views are an important component of scenic value, despite the presence of road infrastructure and overhead power lines.



### Land cover, flora and fauna

Biodiversity value within the LCA is enhanced by the presence of ancient woodland, burns, standing water and raised bogs including Raeburn Flow SSSI.

## Key landscape characteristics susceptible to the Proposed Scheme



### Overall landscape value

An agricultural landscape in which landscape value is enhanced by the presence of burns, raised bogs, plantation woodland and ancient woodland. The sparse settlement pattern and limited road network contribute to a sense of remoteness and tranquillity. The perception of remoteness is enhanced by open views and wide skies. WCML, the B7076 and A47(M) lower tranquillity levels to the south western extent of the LCA. The value of this LCA is therefore **medium**.

### Overall landscape susceptibility

The open character of the landscape and perception of relative tranquillity and remoteness are susceptible to change arising from the Proposed Scheme. However, the presence of road and rail infrastructure elements in the south western extent of the LCA lowers susceptibility. The landscape therefore has a **medium** susceptibility to change resulting from the Proposed Scheme.

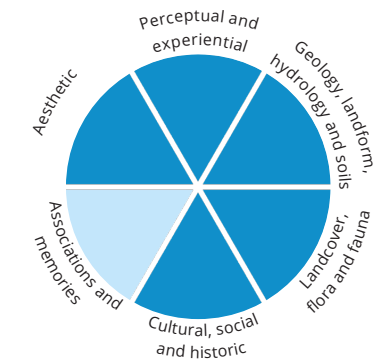
### Future baseline

There are no committed developments that will affect the landscape susceptibility to the Proposed Scheme.

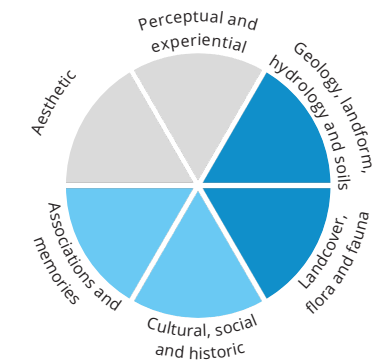
### Overall landscape sensitivity

The scenic qualities, the perception of remoteness, biodiversity value, open character and wide views across the landscape are sensitive to changes arising from the Proposed Scheme. Sensitivity is moderated by the presence of infrastructure including WCML, B7076 Glasgow Road and the proximity of A47(M) (beyond the boundary of the LCA). The overall sensitivity of the LCA is **medium**.

### Value



### Susceptibility



### Value and susceptibility key





## Magnitude of change and level of effect

### Construction

A small proportion of this LCA will be directly affected by the construction of Williamsfield Farm access diversion, Annandale depot including the depot sidings, maintenance shed and accommodation building, depot sidings underpass, the northern reception track, the B7076 realignment and modifications to the WCML. Cranberry Farm accommodation overbridge satellite compound, Annandale depot main compound and temporary earthworks stockpiles will be introduced into the agricultural landscape. Low levels of tranquillity in the vicinity of the WCML, the B7076 and the A74(M) will be further reduced by construction activity and construction vehicle movements. The removal of hedgerows, individual mature trees and pockets of woodland will be noticeable. Construction activity will affect the landscape setting of Grahamshill Farmhouse and Steading (the Mill Forge hotel and wedding venue) Grade B listed building. Short sections of Ewes Burn will be realigned, with the removal of some streamside trees and vegetation. Cranberry Farm accommodation overbridge satellite compound and Annandale depot main compound will introduce an additional light source in a largely unlit environment but will be in the context of lighting at Kirkpatrick-Fleming and from vehicles using the B7076 and the A74(M). Access and connectivity within the wider countryside, granted under the Land Reform (Scotland) Act 2003, will be reduced within the area of Annandale depot. The loss of landscape features and the introduction of construction activity will represent uncharacteristic changes across a proportion of the character area. The magnitude of change will be **medium**.

Effects will be **moderate adverse (significant)**.

### Operation year 1

The southern part of this LCA will be directly affected by the presence of Annandale depot including the depot sidings, maintenance shed and accommodation building, depot sidings underpass, northern reception track, B7076 realignment, modifications to WCML and Williamsfield Farm access diversion. Although set within the context of the WCML, the B7076 and the A74(M) transport corridors, the Proposed Scheme will introduce uncharacteristic changes to landscape character across a small proportion of this LCA. There will be a noticeable change to the pattern of agricultural land in proximity to the Proposed Scheme, including hedgerows, individual mature trees and linear woodland lost during construction. The presence of the Proposed Scheme will affect the landscape setting of Grahamshill Farmhouse and Steading (the Mill Forge hotel and wedding venue) Grade B listed building. The extent of local open access land, granted under the Land Reform (Scotland) Act 2003, will be reduced within the area of Annandale depot. The Proposed Scheme will be partially integrated into its landscape setting by landscape earthworks. However, newly planted mitigation planting will not be sufficiently mature to provide any landscape integration of the Proposed Scheme in year 1. The lighting associated with Annandale depot will result in a noticeable change to the landscape character within a part of the LCA. The presence of additional railway infrastructure at a greater scale than the existing WCML and train movements will further reduce levels of low tranquillity in the south of the LCA. The presence of the Proposed Scheme will result in a noticeable change to the landscape character within a proportion of the LCA. The magnitude of change will be **medium**.

Effects will be **moderate adverse (significant)**.

### Operation year 15

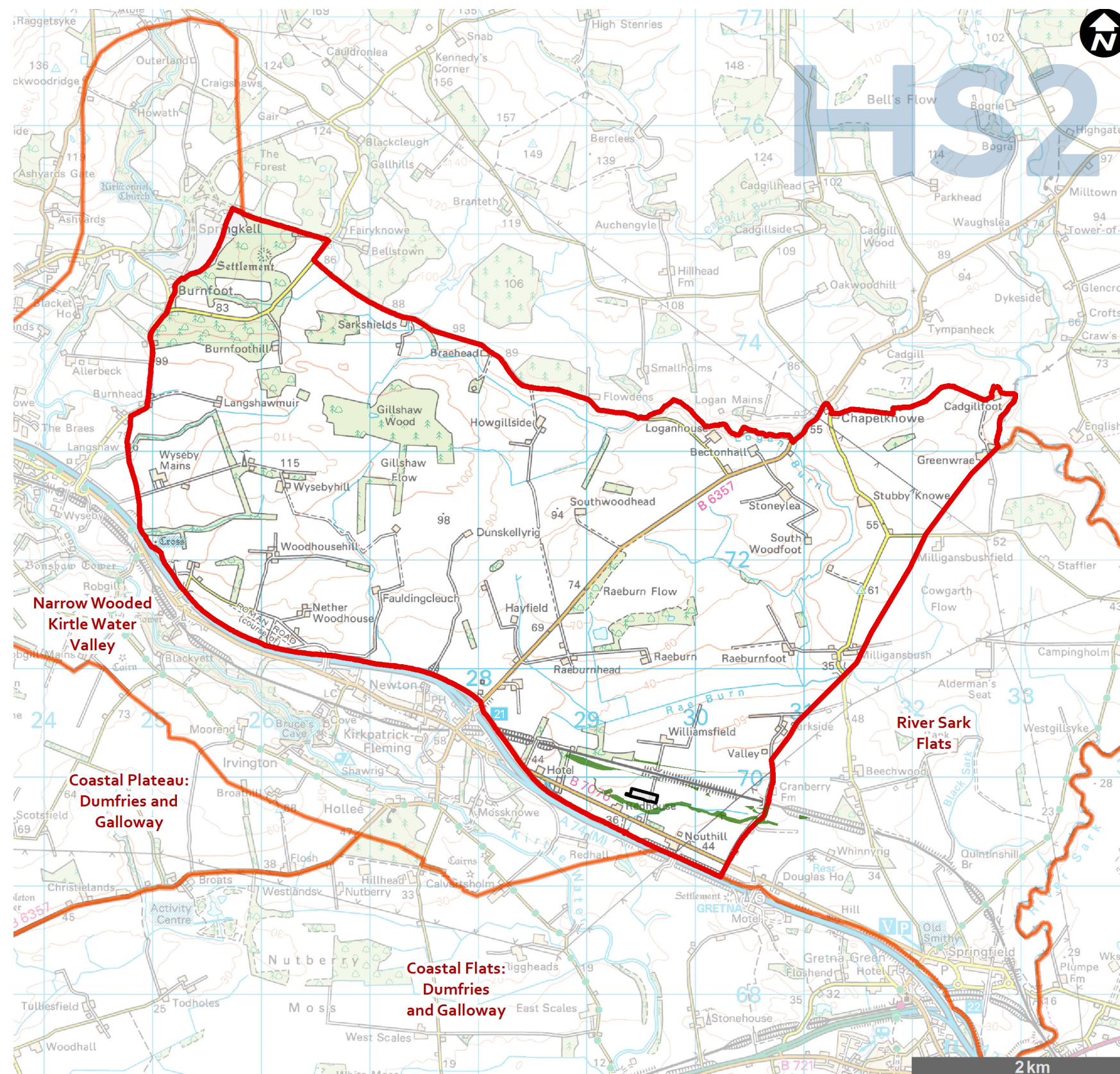
The landscape mitigation planting in association with landscape earthworks will be sufficiently established to assist with integration of the Proposed Scheme into the LCA. The Proposed Scheme will remain a new large-scale element, resulting in a noticeable change to landscape character, despite its context within the WCML, the B7076 and the A74(M) transport corridors. The magnitude of change will remain **medium**.

Effects will be **moderate adverse (significant)**.

### Operation year 30

Although the presence of the Proposed Scheme and the changes to the pattern of the landscape will remain, the greater maturity of the landscape mitigation planting will provide effective integration of the Proposed Scheme into its landscape context. The magnitude of change will reduce to **low**.

Effects will be **minor adverse (non-significant)**.



### Cumulative assessment (construction and operation)

**Construction:** There are no developments which will result in cumulative construction effects.

**Operation:** There are no developments which will result in cumulative operation effects.

No cumulative effect in construction and operation.



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# Narrow Wooded Kirtle Water Valley LCA

## Landscape character baseline description

This long, linear LCA comprises the steep-sided and well-wooded land either side of the narrow, meandering channel of the Kirtle Water, from just south of the village of Waterbeck, to downstream of Kirkpatrick-Fleming.

The sinuous channel of Kirtle Water forms the backbone of the LCA. Beyond the steep-sided river valley, the land flattens out and supports small-scale pasture and arable fields. Settlement is mainly found in the south of the LCA. The villages of Kirkpatrick-Fleming and Kirtlebridge are the two main settlements, both on the B7076. Elsewhere, scattered farms and cottages are typically sited at road bridging points across Kirtle Water. The LCA includes some grand houses, often with associated parkland and policy woodlands. Listed buildings include halls, farmhouses and towers. Landscape features of note include Mossknowe Non-Inventory Designated Landscape.

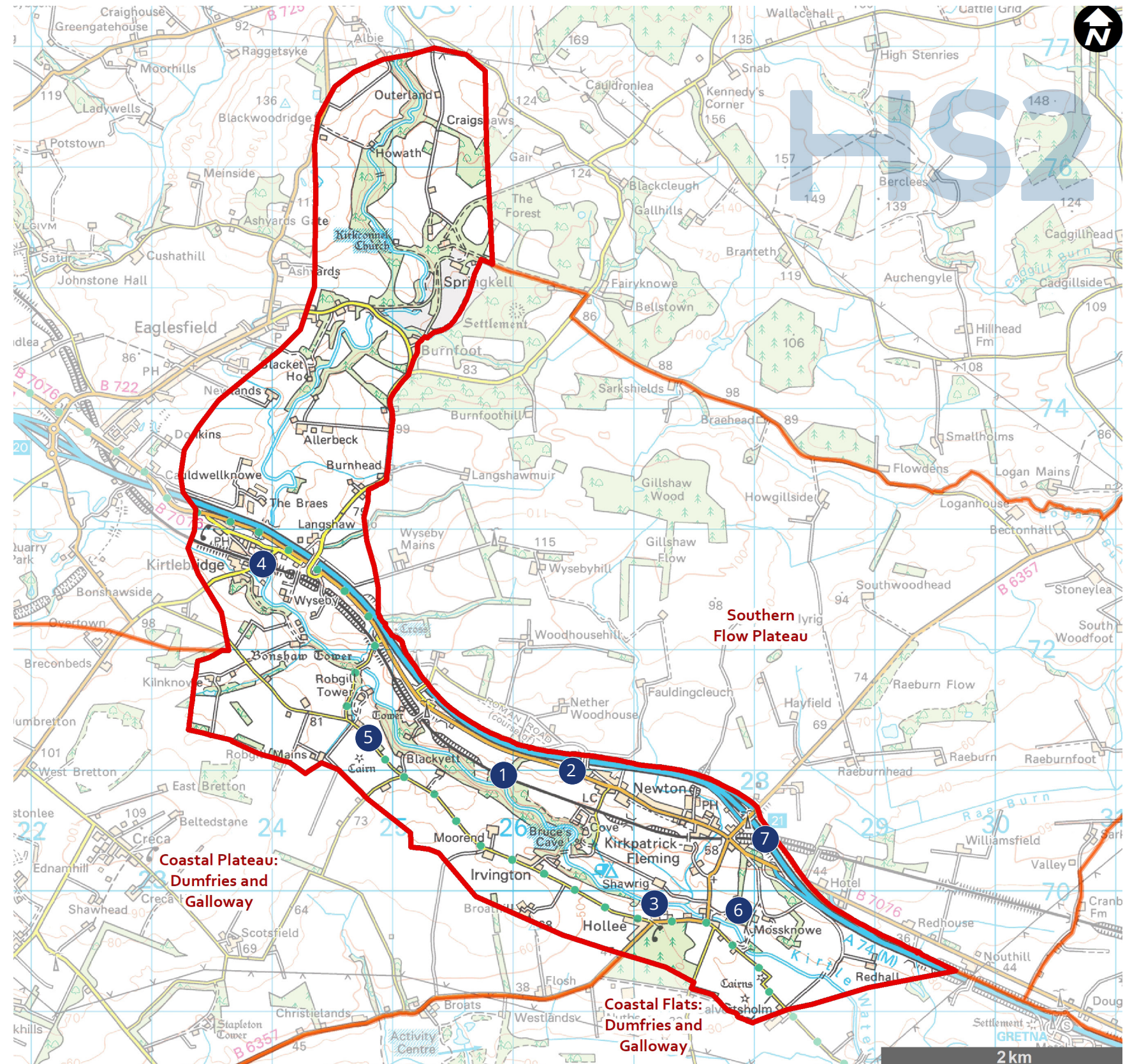
Connectivity is higher in the south of the LCA with several minor roads crossing Kirtle Water. Between Kirkpatrick-Fleming and Kirtlebridge the WCML, B7076 and A74(M) transport corridors follow the contours of the valley, crossing Kirtle Water at Kirtlebridge. Access to A74(M) is via Junction 21 south of Kirkpatrick Fleming. NCN route 74 passes through the southern section of the LCA from Calvertsholm Cottages to Kirtle Bridge and a number of core paths, recognised by DGC are present close to the river's course.

Remains of early settlement include a Roman Camp south of Kirkpatrick-Fleming and a Roman Road, now the B7076. The abundance of woodland including ancient woodland within the river valley, creates a sense of enclosure and pockets of tranquillity, despite the proximity of large-scale infrastructure elements. The steep sided valley of the Kirtle Water and associated broadleaved woodland, create an intimate scale landscape with a strong sense of place.



### Key landscape characteristics

An intimate, small scale landscape with enclosed views, despite the presence of a major transport corridor. Away from main routes, narrow lanes lead to arched stone bridges at river crossings, allowing views along the watercourse, typically appearing unspoilt by development. Occasional lush waterside pastures are enclosed by deciduous wooded slopes. There are some wider views from higher land above the river valley. Walking and cycling routes add to the recreational value of the LCA.



- Proposed Scheme
- LCA boundary
- 1 WCML
- 2 B7076 Glasgow Road
- 3 Kirtle Water
- 4 Kirtlebridge
- 5 National Cycle Network route 74
- 6 Mossknowe
- 7 A74 (M)

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## Key landscape value attributes

Key landscape value attributes of the Narrow Wooded Kirtle Water Valley LCA are set out below, interpreting landscape baseline information on the previous page and drawing on findings from field surveys.



### Aesthetic

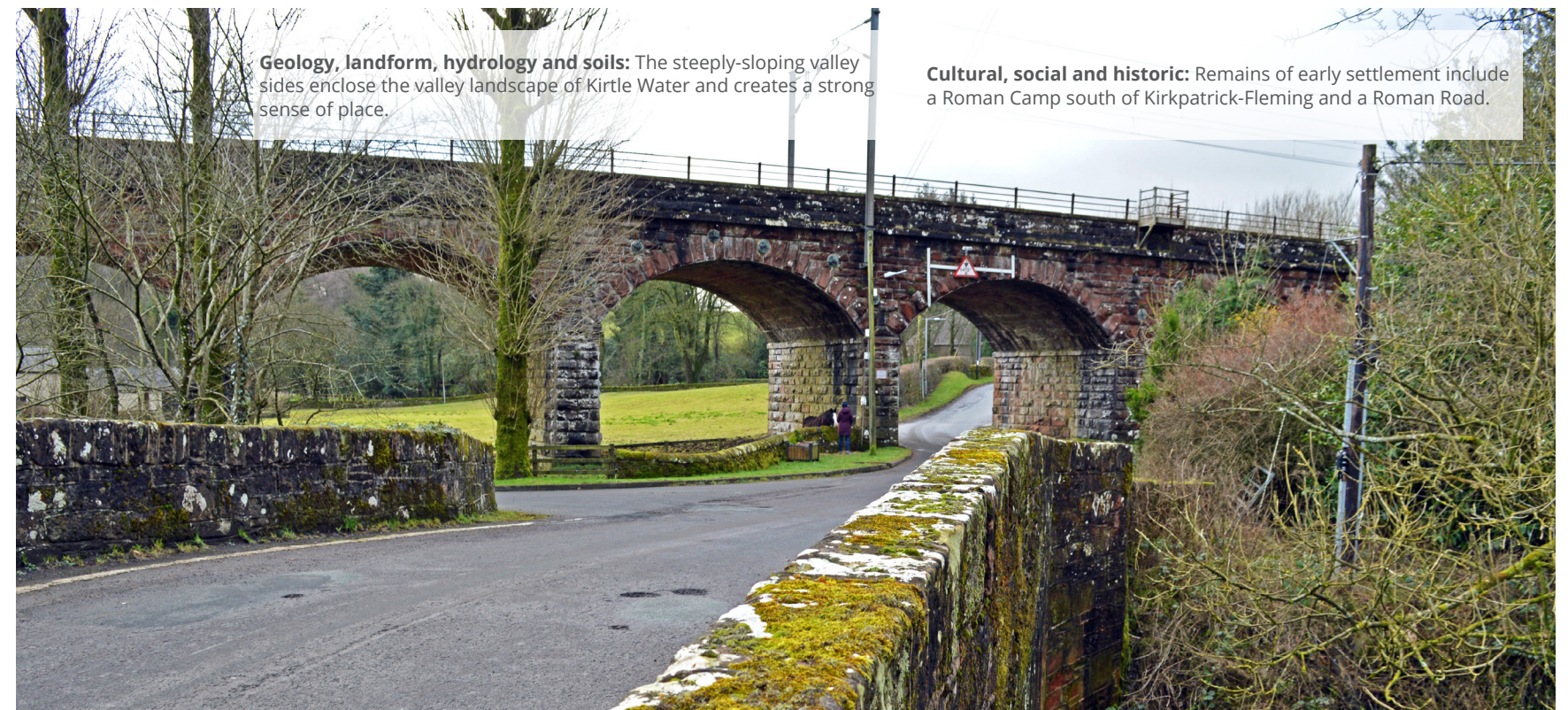
This landscape is composed of intact and distinctive, aesthetically pleasing elements which belie the presence of a major transport corridor. Views along a sinuous well-wooded valley, together with the sound and sights of a varied watercourse combine to provide a high level of scenic attractiveness. Woodland on the steeper valley sides and the unspoilt, small-scale fields on flatter land create a distinctive and tranquil sense of place.



### Land cover, flora and fauna

A river valley in which broadleaved woodlands dominate the steeper river valley sides. Small fields of arable or improved grassland are bounded by hedgerows with mature individual trees. A largely intact and unified landscape, with few detracting elements contributing to a strong sense of place.

## Key landscape characteristics susceptible to the Proposed Scheme



### Overall landscape value

The valley's historic pattern of mainly pastoral landscape remains largely intact and includes ancient and policy woodlands and landscapes in association with former halls and estates. The varied terrain and the relationship between woodland, small-scale fields and narrow river valley, provides high scenic value. Local lanes crossing the water by distinctive stone-arched bridges add to this intimate character, despite the proximity of a major transport corridor between Kirkpatrick-Fleming and Kirtlebridge. The valley's landscape pattern is generally intact despite the presence of detracting infrastructure elements. The overall value of this LCA is **medium-high**.

### Overall landscape susceptibility

The intimate scale, landscape setting of historic buildings and settlements and valued landscape assets including ancient woodland, are highly susceptible to changes arising from the Proposed Scheme. To the south of the LCA, the presence of existing infrastructure elements lowers susceptibility. The landscape therefore has a **medium** susceptibility to change resulting from the Proposed Scheme.

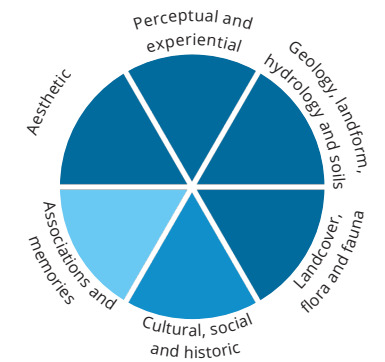
### Future baseline

There are no committed developments that will affect the landscape susceptibility to the Proposed Scheme.

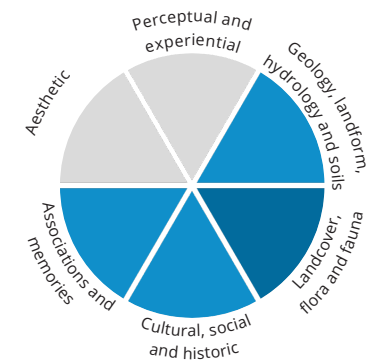
### Overall landscape sensitivity

The LCA's scenic qualities arise from the combination of a sense of historic continuity and the inter-relationship of farmed landscapes and small-scale settlements. These attributes, together with the tranquillity of the well-wooded, intimate river valley result in an overall **medium-high** sensitivity for this LCA.

### Value



### Susceptibility



### Value and susceptibility key





## Magnitude of change and level of effect

### Construction

There will be direct landscape effects across a small proportion of the LCA during modifications to WCML. However, landscape effects will be confined to the south of the LCA and will be largely contained within the B7076 and WCML corridor. Cove Crossing satellite compound, construction works and construction traffic using the B7076 Glasgow Road, will be introduced into the rural landscape on the southern edge of Kirkpatrick-Fleming. In addition, there will be limited indirect landscape effects on the setting of a small proportion of the south-eastern section of the LCA as a result of the construction of Annandale depot and the presence of lighting in the adjacent Southern Flow Plateau LCA. However, construction activity will be to the east of the A74(M) and B7076 and landscape effects will be largely contained by intervening woodland along the road corridors. The magnitude of change will be **low**.

Effects will be **minor adverse (non-significant)**.

### Operation year 1

There will be no direct landscape effects on this LCA as a result of operation of the Proposed Scheme. The Proposed Scheme will be located beyond the boundary of the LCA, to the east of the A74(M). There will be indirect landscape effects to the setting of a small proportion of the south-eastern section of the LCA due to the presence of the Annandale depot and associated lighting in the adjacent Southern Flow Plateau LCA. However, effects will be largely contained by intervening woodland. The magnitude of change will be **low**.

Effects will be **minor adverse (non-significant)**.

### Operation year 15

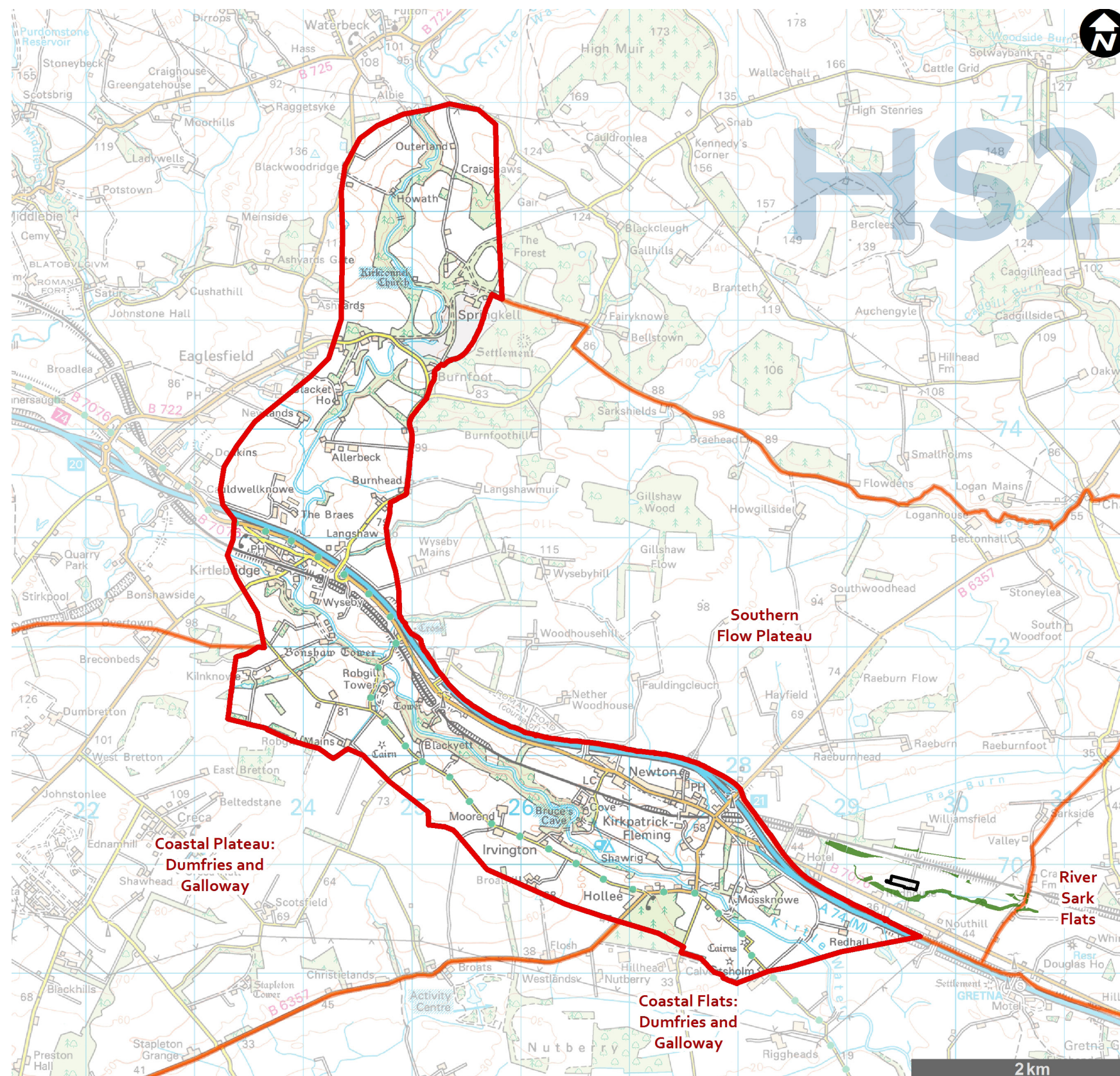
There will be no direct landscape effects for this LCA. Indirect effects on the setting of a small proportion of the LCA, will be largely contained by intervening woodland and maturing mitigation planting in association with Annandale depot, in the adjacent Southern Flow Plateau LCA. The magnitude of change will reduce to **negligible**.

Effects will be **negligible (non-significant)**.

### Operation year 30

There will be no direct or indirect landscape impacts for this LCA. The magnitude of change will remain **negligible**.

Effects will be **negligible (non-significant)**.



### Cumulative assessment (construction and operation)

**Construction:** There are no developments which will result in cumulative construction effects.

**Operation:** There are no developments which will result in cumulative operation effects.

No cumulative effect in construction and operation.

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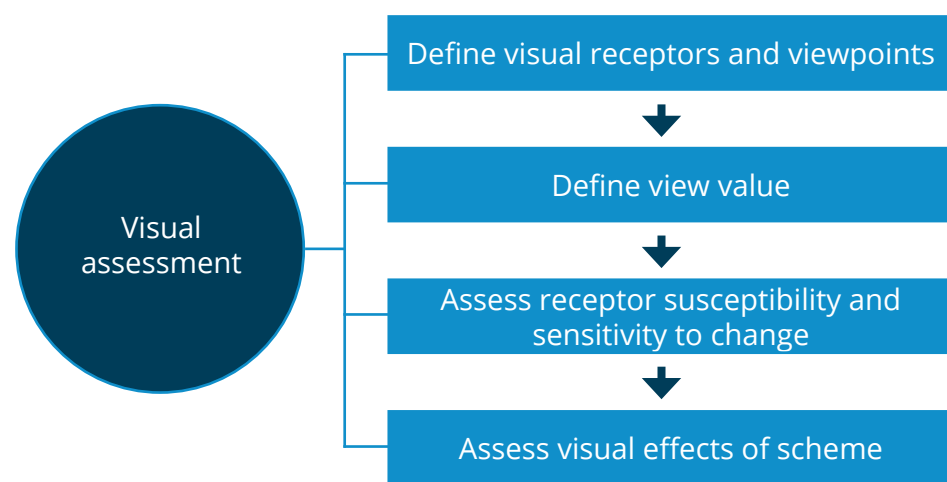


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# Part 3: Visual assessment

## 3.1 Introduction

- 3.1.1 Descriptions of the identified viewpoints are provided in this section. The viewpoints are shown Volume 5, Landscape and visual Map Book, Map Series LV-07 (construction) and LV-08 (operation). For each viewpoint, the first part of the baseline description relates to the view during the winter and the second part relates to the summer view. Where relevant the third part relates to the view at night-time and the fourth part to the future baseline.
- 3.1.2 The assessment considers the value of the view and the susceptibility of the viewer to the Proposed Scheme, and the overall sensitivity of the visual receptors.
- 3.1.3 Effects have been assessed where relevant for construction, operation year 1, year 15 and year 30. A summary of all significant visual effects is given in the Volume 4: Off-route effects, Annandale depot report, Section 11.

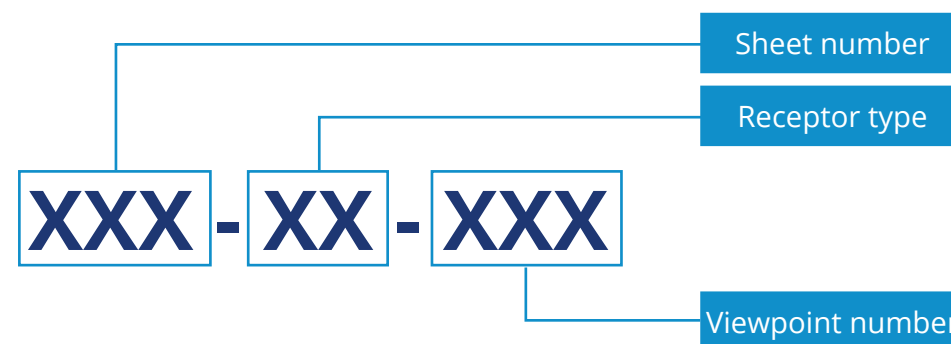


Above: The visual assessment process

- 3.1.4 Photographs have been included to represent the view from visual receptors during winter and, where relevant, summer.
- 3.1.5 On site access was limited to representative viewpoints located on adopted public roads and paths along publicly accessible core paths due to a number of factors including national restrictions associated with COVID-19. In addition, feedback has not been received from DGC. Therefore, a precautionary approach has been applied whereby the assessment has been undertaken using alternative, appropriate sources of information and professional judgement. This constitutes a 'reasonable worst case' basis for the subsequent assessment. For some visual receptors no appropriate or accessible location from which to capture representative photographs of the view was available, therefore no photograph has been included and the assessment has been undertaken based on professional judgement.
- 3.1.6 All photography included within this document has been taken in accordance with the methodology set out within the Technical Note - Landscape and visual - Approach to photography, included in the SMR.
- 3.1.7 Photomontages have also been included for relevant viewpoints. All photography associated with photomontages is verifiable and has been taken in accordance with the Technical Note - Landscape and visual - Approach to verifiable photomontages, included in the SMR. All verifiable photography includes additional image specification and data information.

## 3.2 Visual receptors

- 3.2.1 The number on each viewpoint identifies the viewpoint locations which are shown in the Map Series LV-07 (construction) and LV-08 (operation). The following numbering convention is used:



Above: Viewpoint numbering convention used

- 3.2.2 In each case, the middle number (xxx.xx.xxx) identifies the type of receptor represented, as described below (with more detail in the SMR).

01. Protected views – these relate to those viewpoints, panoramas and viewing corridors that have been designated by local authorities, county councils or other relevant stakeholders. People enjoying protected views have a high susceptibility to change;

02. Residential views – residents have a high susceptibility to changes in their views, as attention is often focused on the landscape surrounding the property, rather than on another focused activity (as will be the case in predominantly employment or industrial areas);

03. Recreational views – these receptors generally have a high susceptibility to changes in their views, as attention is focused on the enjoyment of the landscape. Receptors engaged in activities whereby attention is focused on the surrounding landscape also have a high susceptibility to changes in their views;

04. Transport views – travel through an area is often the means by which the greatest number of people view the landscape. Because of the glimpsed nature of the view from trains or vehicles, people traveling through an area on main roads have a low susceptibility to changes in their views, while those on scenic routes have a medium susceptibility. People travelling through urban areas in vehicles have a low susceptibility to changes in their views although in residential areas this increases to medium;

05. Hotels and healthcare institutions – people staying in hotels or healthcare institutions and schools have periods of time where their attention may be focused on the landscape, whilst at other times attention is more likely to be focused on other activities. Based on the level of interaction with the surrounding landscape, these receptors have a medium susceptibility to changes in their views; and

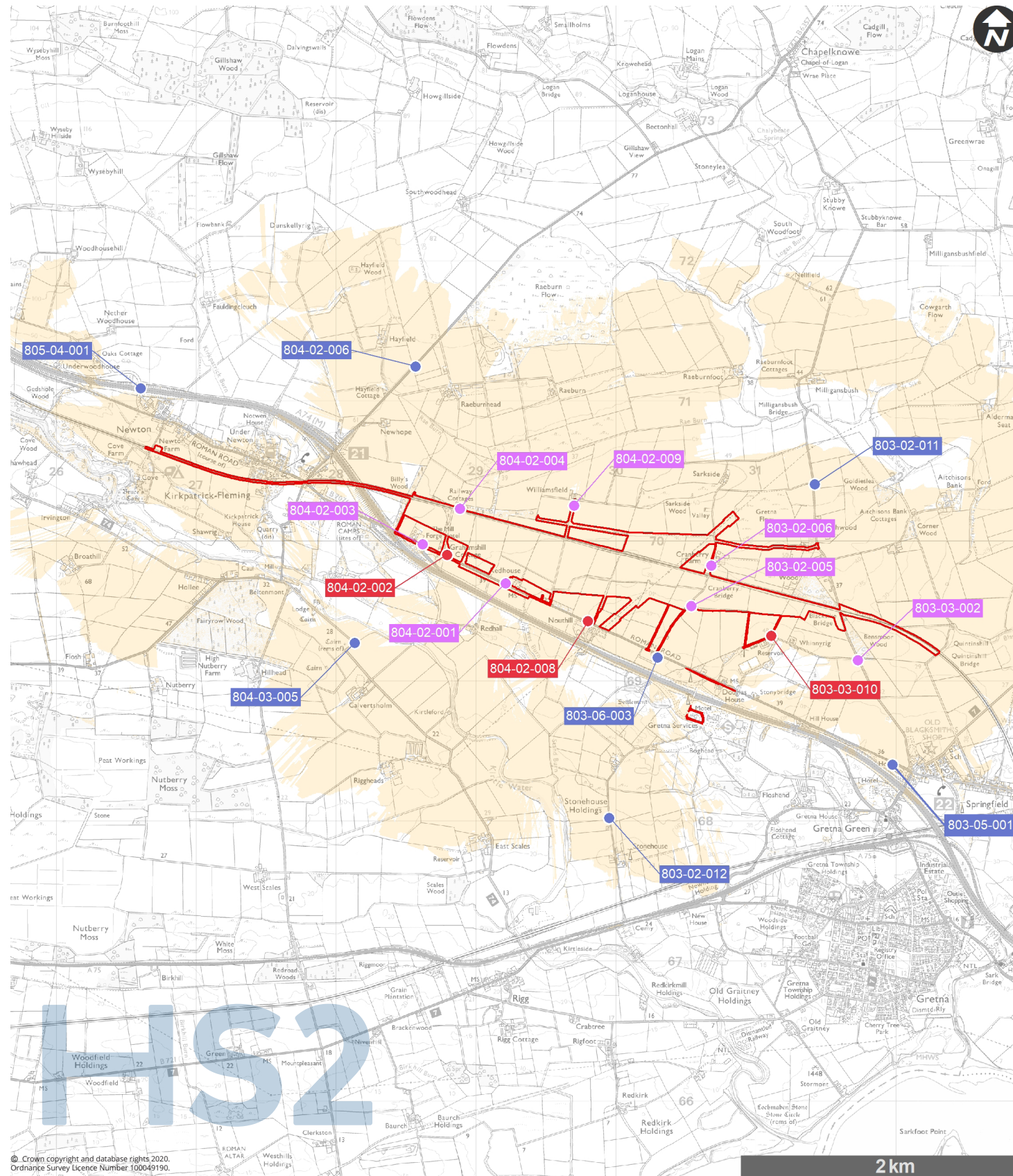
06. Employment – people at work and within educational institutions (other than residential educational facilities) are the least susceptible receptors, as their attention is likely to be focussed on their work activity. These receptors have a low susceptibility to changes in their views.

- 3.2.3 Night-time visual survey and assessments have only been undertaken where continuous working during construction or additional lighting in operation has the potential to result in significant effects on residential and certain recreational receptors. Further detail is set out within the Technical Note - Landscape and visual - Approach to night-time assessment, included in the SMR.



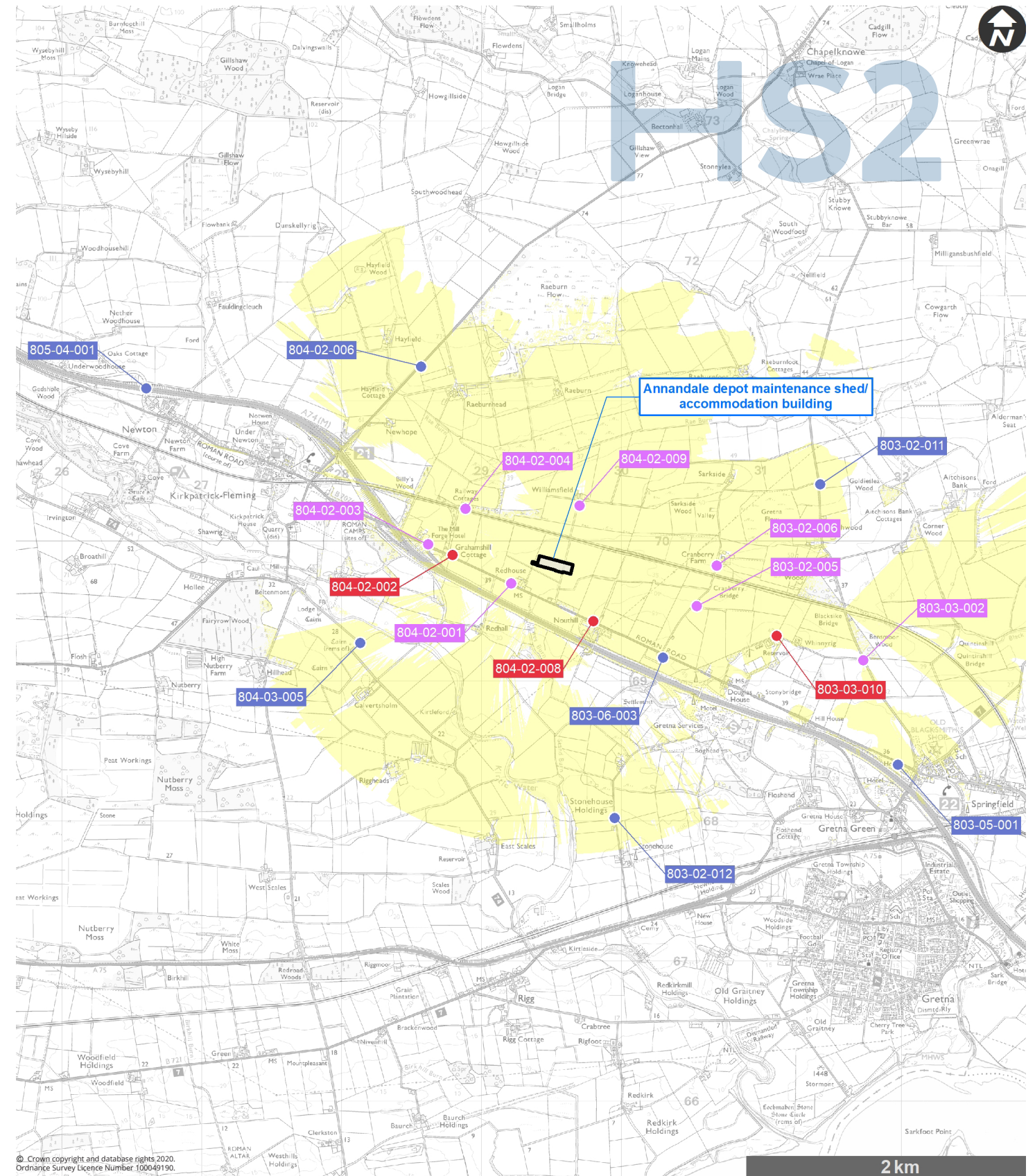
# Overview of viewpoints and photomontages in the community area

## Construction phase



- Route in tunnel
- Route on surface
- Community area boundary
- Non significantly affected viewpoint
- Significantly affected viewpoint
- Non significantly affected photomontage
- Significantly affected photomontage
- ▭ Land potentially required during construction
- ZTV construction

## Operation phase



- Route in tunnel
- Route on surface
- Community area boundary
- Non significantly affected viewpoint
- Significantly affected viewpoint
- Non significantly affected photomontage
- Significantly affected photomontage
- ZTV operation year 1



# Viewpoint 803-05-001: view north-west from Smiths Hotel at Gretna Green

This viewpoint is representative of views experienced by hotel guests.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)

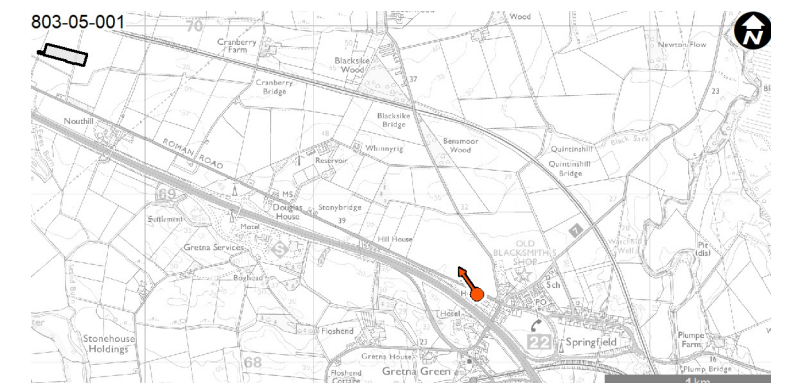


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	331974, 568404	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>  <b>Medium</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>medium</b> . The attention of hotel guests is partly focused on the landscape. They are therefore moderately susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 803-05-001: view north-west from Smiths Hotel at Gretna Green

## Visual baseline description

<b>Winter</b>	<p>There are near-distance views along the B7076, with low roadside hedgerows with individual trees allowing views of agricultural land extending to the north. In the middle distance, field boundary hedgerows, hedgerow trees and vegetation along WCML partially filter views of train movements. Overhead power lines spanning WCML are visible against the skyline. Beyond WCML, trackside vegetation, narrow belts of woodland and field boundary hedgerows on rising agricultural land extend to the north. In the far-distance there are longer views of uplands east and west of Langholm, with the upper elements of wind turbines at Ewe Hill windfarm visible on clear days. These longer views to higher land are more readily available from balconies of upper floor rooms.</p> <p>The majority of hotel rooms are oriented broadly north-south, overlooking the B7076 with guest accommodation over three floors. There is some tree planting within the hotel property boundary.</p>
<b>Summer</b>	<p>During summer, vegetation in leaf including intervening field boundary hedgerows, mature hedgerow trees and small woodlands is more prominent within the view, and partially filters views of WCML and agricultural land beyond. Overhead power lines remain visible, seen above the field boundary vegetation.</p>
<b>Night-time</b>	<p>The hotel car park is lit, as are roads and properties in Gretna and Kirkpatrick-Fleming. However, lighting in the rural area between these settlements is limited to traffic on the A74(M) and B7076, within Gretna motorway service area and at scattered farms, cottages and businesses.</p>

## Future baseline description

<b>Construction (2025)</b>	<p>There are no committed developments which will change the baseline.</p>
<b>Operation (2038)</b>	<p>There are no committed developments which will change the baseline.</p>

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		<p>Hotel guests will have views of large-scale construction activity in the middle and far distance, including the upper elements of modifications to WCML, the construction of the southern reception tracks and Cranberry Farm accommodation overbridge. The majority of views will be oblique and from upper floor balconies of the hotel. Construction activity including construction traffic using the B7076 and an unnamed road to the north-east, temporary material stockpiles and Cranberry Farm accommodation overbridge satellite compound will be introduced into views of the otherwise rural, farmed landscape, but viewed within the context of the existing the B7076 and WCML. The undergrounding of a section of 132kV overhead power line spanning WCML will be noticeable in the far distance, marked by the construction of two sealing end pylons. However, views will be largely filtered through intervening vegetation. The magnitude of change will be <b>low</b>.</p>	<b>Minor adverse (non-significant)</b>
<b>Construction night-time</b>		<p>Hotel guests will have views from upper floor balconies of artificial lighting at Cranberry Farm accommodation overbridge satellite compound in the middle distance and Annandale depot main compound in the far distance. These new areas of illumination will be seen in the context of existing light sources within the view. The controls on light spill set out in the draft Code of Construction Practice (CoCP) will limit the change these new light sources introduce to the wider views. At night there will be a <b>low</b> magnitude of change.</p>	<b>Minor adverse (non-significant)</b>
<b>Construction cumulative assessment</b>		<p>There are no developments which will result in cumulative effects.</p>	<b>No cumulative effect</b>

			<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>		<p>There will be oblique views over a narrow arc of view, of the Proposed Scheme in the far distance from upper floor hotel room balconies. However, train movements and overhead line equipment will be seen in the context of the existing WCML and two new sealing end pylons will be seen in the context of existing overhead power lines. Taller scheme elements at Annandale depot in the far distance of the view, will be largely filtered through intervening vegetation. Oblique views of the Proposed Scheme from lower-floor hotel room balconies including the southern reception tracks, will be largely filtered through intervening vegetation and screened by landscape earthworks. Views from the grounds of the hotel, will be largely unaltered. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of visual change will be <b>low</b>.</p>	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		<p>Lighting associated with Annandale depot will create a local area of sky-glow in the far distance of the view. This new area of light source will be seen in the context of existing light sources. At night, the magnitude of change will be <b>low</b>.</p>	<b>Minor adverse (non-significant)</b>
<b>Year 15</b>	<b>Summer</b>		<p>The combination of intervening vegetation and maturing mitigation planting in association with landscape earthworks, will largely screen oblique views of the Proposed Scheme from lower-floor hotel room balconies and the hotel grounds. Intervening vegetation will further filter oblique views of the taller scheme elements in the background of the view, from upper floor hotel room balconies. The magnitude of visual change will reduce to <b>negligible</b>.</p>	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		<p>Sky-glow from lighting at Annandale depot will be largely filtered through intervening vegetation and maturing mitigation planting. The magnitude of visual change will reduce to <b>negligible</b>.</p>	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		<p>The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. The magnitude of change will remain <b>negligible</b>.</p>	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		<p>Sky-glow from lit elements at Annandale depot will continue to be largely filtered through intervening vegetation and mature mitigation planting. The magnitude of visual change will remain <b>negligible</b>.</p>	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			<p>There are no developments which will result in cumulative effects.</p>	<b>No cumulative effect</b>



# Viewpoint 803-03-002: view north-west from Quintinshill and the River Sark circular walk

This viewpoint is representative of views experienced by users of the promoted Quintinshill circular walking route from Gretna Green, on the approach to Blacksike bridge.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)



## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	<b>Sensitivity of the receptor:</b>  <b>High</b>
<b>Approximate GPS co-ordinates ref.</b>	331728, 569151	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium-high</b> value as defined as a promoted local circular walking route from Gretna Green to Backsike.	
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . The attention of recreational receptors is focused on the landscape. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 803-03-002: view north-west from Quintinshill and the River Sark circular walk

## Visual baseline description

<b>Winter</b>	There are near-distance views across agricultural land north and south of the core path. The terrain is gently rising to the west. Roadside, core path and field boundary hedgerows allow views into adjacent fields. In the middle distance, field boundary hedges with mature hedgerow trees and trackside vegetation south of WCML filter the visibility of train movements. A narrow belt of coniferous trees south of the core path filters views further to the south. In the far distance, agricultural land rises to the west with roadside hedgerows and mature trees along the B7076 Glasgow Road seen against the horizon, marking a low ridge.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable. Views of the WCML and the rising agricultural land to the north are further filtered through intervening vegetation.
<b>Night-time</b>	The night-time baseline is not described for this viewpoint, as night-time effects have only been considered for occupiers of residential properties and residents staying in hotels at healthcare institutions.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Users of the promoted recreational route will have middle and far-distance views of large-scale construction works including the modification of the WCML, and construction of the southern reception tracks and Cranberry Farm accommodation overbridge. There will be close views of construction traffic using the minor road between Gretna Green and Blacksike Bridge. Cranberry Farm accommodation overbridge satellite compound, large-scale earthworks and temporary material stockpiles will be introduced into views of the otherwise rural, farmed landscape and WCML. Views west, from the unnamed road between Gretna and Blacksike Bridge will be partially screened by the rise in the landform between the viewpoint and construction works. Views east will be filtered through intervening vegetation. Travelling north from the viewpoint, the construction activity will be viewed in the context of the existing WCML visible across a large proportion of the view. The removal of field boundary vegetation and the loss of agricultural land will change the composition of the view compared with the baseline. Taller construction machinery for the Proposed Scheme will be visible in the background of the view, against the skyline. The magnitude of change will be <b>medium</b> .	<b>Moderate adverse (significant)</b>
<b>Construction night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

		<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>	Users of the promoted recreational route will experience a noticeable change to the rural character of middle-distance views. The southern reception tracks, pumping station and storage tank, Cranberry Farm accommodation overbridge and modifications of the WCML will be new and uncharacteristic elements introduced into views of the wider agricultural landscape and WCML. Views to the west will be partially screened by the rise in the landform between the viewpoint and Proposed Scheme. Views east will be filtered through intervening vegetation. Travelling north from the viewpoint, the Proposed Scheme will be viewed in the context of the existing WCML and will be visible across a proportion of the view. The southern reception tracks will be in cutting and partially screened by landscape mitigation earthworks. However, upper elements of the overhead line equipment and train movements will be partially visible above the line of mitigation earthworks. Cranberry Farm accommodation overbridge will be a new raised element within the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting in association with landscape earthworks, along field boundaries and on Cranberry Farm accommodation overbridge embankments, will largely filter views of the Proposed Scheme in the middle distance. The magnitude of change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. The magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in operational cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 803-06-003: view north-west from Cranberry depot

This viewpoint is representative of views experienced by workers at Cranberry depot.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)

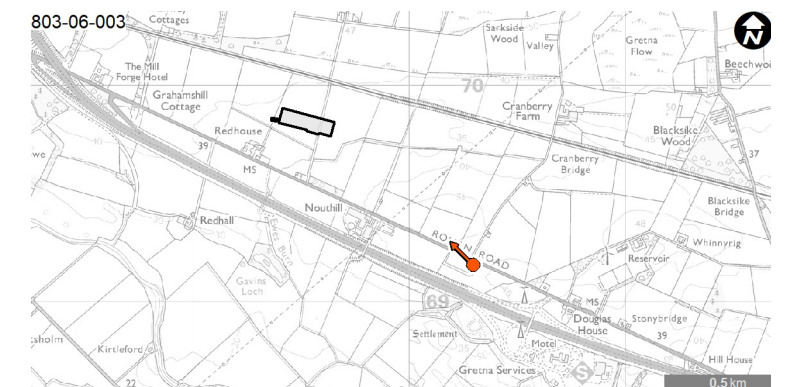


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	330296, 569170	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>low</b> . The attention of people at work is likely to be focused on their work activity. They therefore have a low susceptibility to visual change arising from the construction and operation of the Proposed Scheme.	<b>Low</b>





# Viewpoint 803-06-003: view north-west from Cranberry depot

## Visual baseline description

<b>Winter</b>	There are near-distance views of the B7076 Glasgow Road, with low roadside hedgerows and agricultural land beyond to the north. A telegraph line crosses the road. Land rises gently northwards from the B7076 Glasgow Road. In the middle distance, field boundary hedges partially filters views of WCML and train movements. An overhead power line spans the view with prominent pylons seen against the skyline. In the far distance, rising agricultural land north of WCML is visible, with field boundary vegetation and small woodlands seen, against the skyline. On a clear day, the upper elements of wind turbines at Ewe Hill windfarm are visible.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening hedgerows and small woodlands are more noticeable. Vegetation in leaf largely screens views of the WCML and land beyond to the north. However, the telegraph line and overhead power line pylons remain noticeable, against the skyline.
<b>Night-time</b>	The night-time baseline is not described for this viewpoint as night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Workers at Cranberry depot will experience a noticeable change to views in the near and middle distance during construction of the Proposed Scheme including the southern reception tracks and Cranberry Farm accommodation overbridge. Cranberry Farm Accommodation overbridge satellite compound, large scale earthworks and temporary material stockpiles will be introduced into views of the B7076, WCML and agricultural land and will be visible across the majority of the view. Construction traffic using the B7076 and the access road to Cranberry Farm, will introduce additional and uncharacteristic traffic movement into views. The removal of some roadside and field boundary vegetation and the loss of agricultural land will be noticeable. A short section of 132kV overhead power line spanning the WCML will be undergrounded. Taller elements of construction activity at Annandale main compound will be visible in the middle distance to the north-west, as will the emerging structures associated with Annandale depot. However, these views will be partially filtered through intervening vegetation. The magnitude of change will be <b>medium</b> .	<b>Minor adverse (non-significant)</b>
<b>Construction night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>		Although land in the near distance, immediately north of B7076 will remain in agricultural use, there will be a noticeable change to components across a large proportion of the view in the middle distance. There will be an increase in the extent of railway-related infrastructure, with views of the upper elements of overhead line equipment and train movements. These views will be in the context of existing rail movements on the WCML but closer in the view and at a much greater scale. The replacement southern sealing-end pylon, traction substation and carriage washer will be prominent elements in middle-distance views, seen against the skyline. Further west, the upper extents of taller elements at Annandale depot will be visible above the line of intervening vegetation, across a proportion of the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. However, landscape earthworks will provide some screening of lower components of the Proposed Scheme. The magnitude of change will be <b>medium</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 15</b>	<b>Summer</b>		Maturing mitigation planting on the landscape earthworks will partially filter views of the Proposed Scheme. However, the replacement sealing-end pylon and upper limits of overhead line equipment will remain visible in the middle distance but seen in the context of existing overhead powerlines and train movements along WCML. The upper extents of taller elements at Annandale depot will be partially visible above the line of intervening vegetation and mitigation planting, across a proportion of the view. The magnitude of change will remain <b>medium</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of mitigation planting will further screen views of the Proposed Scheme. However, the upper extents of taller elements at Annandale depot will remain partially visible above the line of intervening vegetation and mitigation planting. The magnitude of change will reduce to <b>low</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



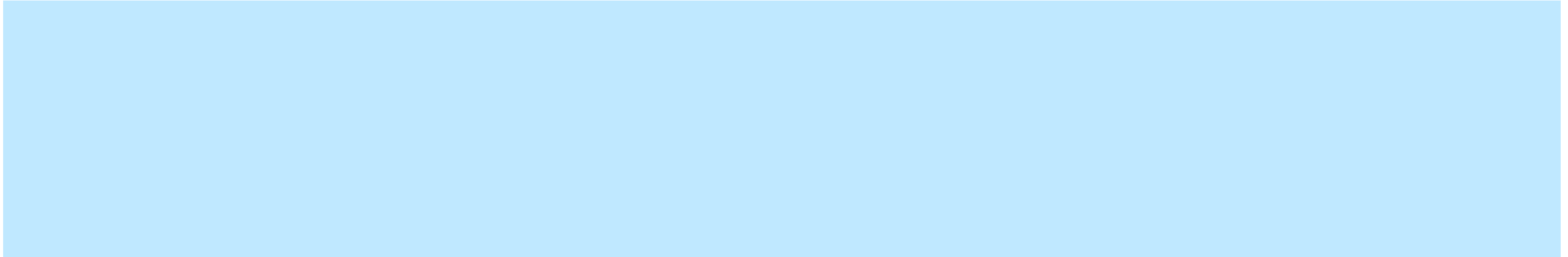
# Viewpoint 803-02-005: view north-west from Cranberry Cottage

This viewpoint is representative of views experienced by residents of Cranberry Cottage and Cranville.

Viewpoint not visited; judgments based on a precautionary approach.

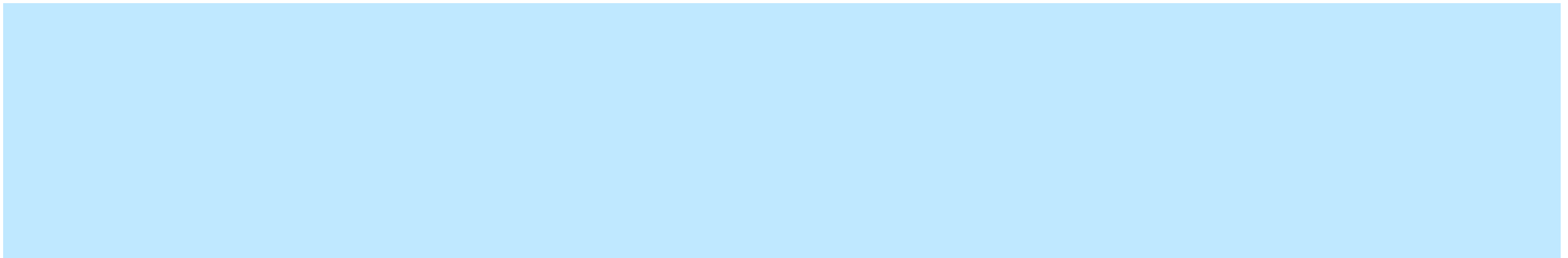
## Winter view (baseline)

It has not been possible to capture winter photography.

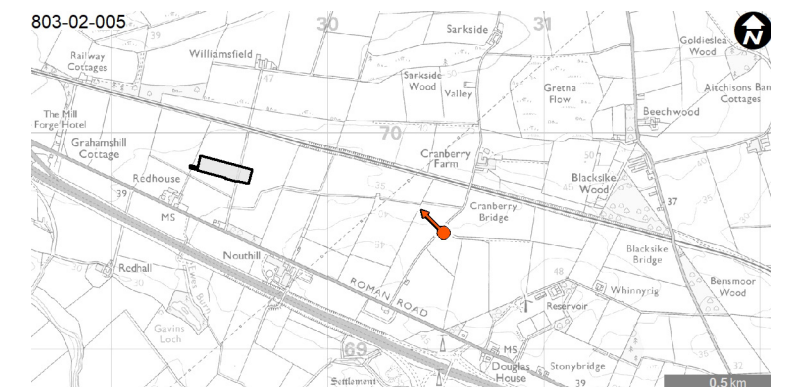


## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Not applicable	
<b>Approximate GPS co-ordinates ref.</b>	330539, 570255	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	<b>High</b>





# Viewpoint 803-02-005: view north-west from Cranberry Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views of garden vegetation and a hedged access track, linking the B7076 Glasgow Road and WCML. West of the track, a prominent overhead power line crosses agricultural land from north to south, with pylons seen against the skyline. In the middle distance agricultural land on largely level terrain extends beyond the track, south of WCML. Short sections of vegetation mark the line of Ewes Burn running from east to west, before being screened by intervening hedgerows. Field boundary and WCML trackside vegetation partially filter the visibility of train movements. In the far distance, north of WCML, agricultural land rises to the north-east, with field boundary hedgerows and small woodlands seen against the horizon. On a clear day, the upper elements of wind turbines at Ewe Hill windfarm may be visible.
<b>Summer</b>	Vegetation in leaf appears more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable. Vegetation in leaf filters and screens the visibility of the WCML and the rising agricultural land to the north. The overhead power line and pylons remain prominent.
<b>Night-time</b>	Lighting in this rural area between Gretna and Kirkpatrick-Fleming is limited to scattered farms, cottages and businesses. Traffic headlights can mark the location of local roads and lanes.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
	<b>Construction</b>	Residents will experience a substantial change to near and middle-distance views due to the presence of large-scale construction works including the construction of the southern reception tracks, Cranberry Farm accommodation overbridge, Annandale depot traction sub-station, Ewes Burn realignment and the undergrounding of a 132kV overhead power line. The removal of intervening field boundary vegetation and the loss of agricultural land will change the character of rural views. Construction activity including Cranberry Farm accommodation overbridge satellite compound, large-scale earthworks and temporary material stockpiles may be visible across the majority of the view. Construction traffic using the access track adjacent to the properties and another temporary access point from the B7076 Glasgow Road, will introduce uncharacteristic traffic movements into near and middle-distance views. Construction works from Annandale depot main compound, including the emerging maintenance shed, accommodation building, and depot sidings may also be visible in the middle distance of the view. There may be a <b>high</b> magnitude of visual change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Construction night-time</b>	Residents will have near-distance views of artificial lighting at Cranberry Farm accommodation overbridge satellite compound. This will be a new area of light source in a largely unlit, rural landscape. Cranville residents will also have middle-distance views of artificial lighting at Annandale depot main compound. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there may be a <b>high</b> magnitude of visual change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Construction cumulative assessment</b>	There are no developments which would result in cumulative effects.	<b>No cumulative effect</b>
		Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>	Residents will experience a substantial change to near and middle-distance views. The southern reception tracks, Cranberry Farm accommodation overbridge, Annandale depot traction sub-station and the southern new sealing end pylon will be new infrastructure elements introduced into views of the farmed landscape and WCML. These new elements will be at a greater scale than existing rail infrastructure and may be seen across a large proportion of the view, although partially screened by landscape earthworks. Overhead line equipment and the upper elements of train movements may be visible above the landscape earthworks and seen in the context of overhead line equipment on the WCML. The eastern elevation of the maintenance shed and accommodation building may be visible to the west, partially screened by landscape earthworks. Newly planted mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Night-time</b>	Residents may have middle-distance views of operational lighting at Annandale depot including lighting to the depot sidings and pedestrian paths between work areas. This new area of light source may create a localised area of sky glow above intervening landscape earthworks within a largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. There may be a <b>medium</b> magnitude of visual change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting in association with landscape earthworks and mitigation hedgerows along field boundaries, may partially filter and screen views of lower elements of the Proposed Scheme. The upper extents of Cranberry Farm accommodation overbridge, the southern new sealing end pylon, train movements and overhead line equipment along the southern reception tracks and northern reception track may remain visible in the middle distance, partially filtered through intervening vegetation. Mitigation planting may also filter views of the WCML and the eastern elevation of the maintenance shed and accommodation building to the west. However, maturing mitigation planting may also foreshorten views across the farmed landscape to woodland and may form the new skyline. The magnitude of visual change may reduce to <b>medium</b> , and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Operational lighting at Annandale depot may be largely filtered through intervening and maturing mitigation planting. However, a localised area of sky glow may remain noticeable. At night, there may be a <b>low</b> magnitude of visual change and a precautionary <b>minor</b> adverse effect is assessed.	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of the mitigation planting may largely filter views of the Proposed Scheme. The magnitude of visual change may reduce to <b>low</b> , and a <b>minor</b> adverse precautionary non-significant effect is assessed.	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Operational lighting at Annandale depot may be screened by the maturity of intervening vegetation. At night, there may be a <b>negligible</b> magnitude of visual change and a precautionary <b>negligible</b> significant effect is assessed.	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which would result in cumulative effects.	<b>No cumulative effect</b>



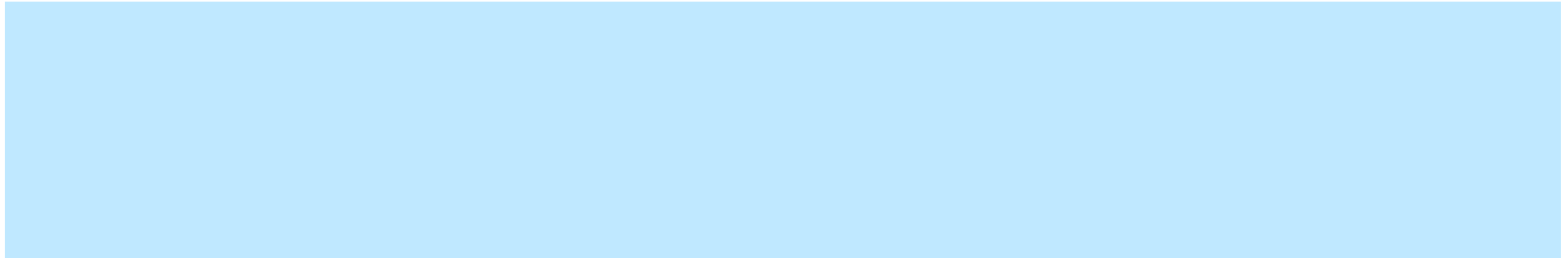
# Viewpoint 803-02-006: view south-west from Cranberry Farm

This viewpoint is representative of views experienced for residents at Cranberry Farm, Valley Cottage and Sarkside.

Viewpoint not visited; judgments based on a precautionary approach.

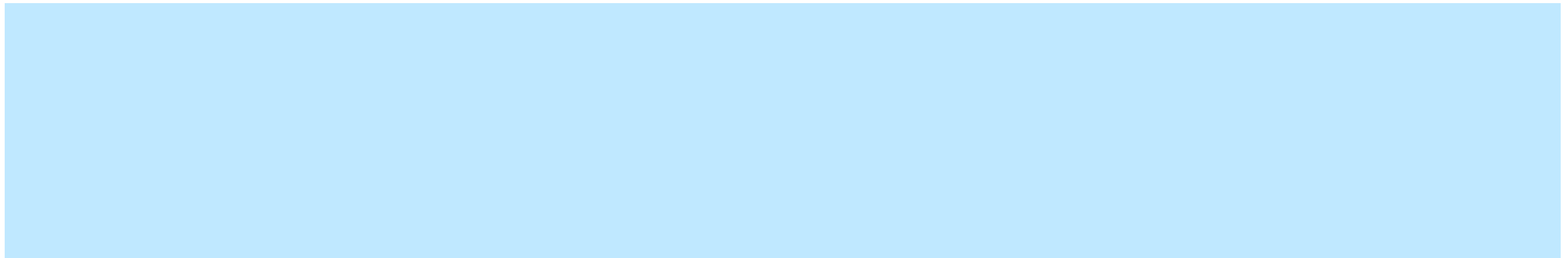
## Winter view (baseline)

It has not been possible to capture winter photography.



## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Not applicable	
<b>Approximate GPS co-ordinates ref.</b>	330680, 569827	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	<b>High</b>





# Viewpoint 803-02-006: view south-west from Cranberry Farm

## Visual baseline description

<b>Winter</b>	There are near-distance views across agricultural land north of WCML. Terrain is gently undulating, and roadside and field boundary hedgerows allow views into adjacent fields. An overhead power line crossing to the west and spanning WCML is prominent in the view. In the middle distance, field boundary hedges link with WCML trackside vegetation to filter views of train movements. The more elevated positions of Valley Cottage and Sarkside may allow wider views across the landscape beyond the WCML. North and south of WCML, the overhead power line is noticeable crossing terrain sloping gently towards the B7076 Glasgow Road, with pylons seen against the skyline. Traffic movements on the B7076 Glasgow Road are visible beyond. In the far distance, traffic on the A74(M) is also visible, with agricultural land beyond falling gently to the Kirtle Water valley and further to the south. On a clear day, views may extend south towards Solway Firth.
<b>Summer</b>	During summer, leaf cover allows the vegetation to appear more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable. Vegetation in leaf filters and screens views of WCML and agricultural land to the south. The detracting element of the overhead power line and pylons remains a prominent feature.
<b>Night-time</b>	Lighting in this rural area between Gretna and Kirkpatrick-Fleming is limited to scattered farms, cottages and businesses and lighting at Gretna Motorway Service Area.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including construction of the southern reception tracks and Cranberry Farm accommodation overbridge, Williamsfield Farm access diversion (to the north), the undergrounding of a section of 132kV overhead power line and construction of new sealing end pylons north and south of WCML. Cranberry Farm accommodation overbridge satellite compound and large-scale earthworks will be introduced into views of the undulating rural landscape and WCML infrastructure. Views of construction activity to the south of WCML may be partially filtered through intervening vegetation and existing railway infrastructure. There may be views of Annandale depot main compound, construction of the depot sidings and the emerging maintenance shed in the background of the view. The more elevated position of Valley Cottage and Sarkside may allow wider views across the landscape of construction activity beyond the WCML. Construction works may be visible across the majority of the view, in both near and middle-distance views. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Residents will have views of artificial lighting at Cranberry Farm accommodation overbridge satellite compound in the middle distance. There may also be views of artificial lighting at Annandale depot main compound in the background of the view. These new areas of light source may create localised areas of sky glow above intervening construction works and rail infrastructure, within a largely unlit rural landscape. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>
		Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>	Residents will experience a substantial change of the rural character of views in the near and middle distance. The southern reception tracks, Cranberry Farm access accommodation overbridge, the northern sealing end pylon, Annandale depot traction sub-station and the northern reception track will be new large-scale infrastructure elements introduced into views of the farmed landscape and WCML infrastructure. The southern reception tracks will be partially screened in cutting. Cranberry Farm accommodation overbridge will be a new raised element in the view. The Proposed Scheme will be at a much larger scale than existing rail infrastructure and may be visible across the majority of the view, beyond the WCML. Views may be partially filtered through intervening vegetation and screened by existing rail infrastructure. Train movements and overhead line equipment along the southern reception tracks and the northern reception track will be seen in the context of WCML. There may be views further to the south-west to the eastern elevation of the maintenance shed and accommodation building. The more elevated positions of Valley Cottage and Sarkside may allow views south of the WCML, to the wider landscape beyond the depot. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Night-time</b>	Residents may have middle-distance views of operational lighting at Annandale depot including lighting to the depot sidings area and pedestrian paths between work areas. This new area of light source will create a localised area of sky glow seen above intervening WCML rail infrastructure and within a largely unlit, rural landscape. At night, there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting may partially filter views of the Proposed Scheme. However, the upper elements of Cranberry Farm accommodation overbridge, Annandale depot traction sub-station, overhead line equipment and train movements may remain visible in the middle distance, above the line of mitigation planting. Further west, the upper elements of the maintenance shed, accommodation building and overhead line equipment within the depot sidings may also be visible above intervening and maturing mitigation planting. All views will be in the context of WCML in the near distance of the view. The magnitude of change may reduce to <b>medium</b> and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Views of operational lighting at Annandale depot, beyond WCML, may be partially filtered through the growth of intervening mitigation planting. However, some elements of light or sky-glow may be visible above intervening vegetation and within a largely unlit rural landscape. At night, the magnitude of change may reduce to <b>low</b> and a precautionary <b>minor</b> adverse effect is assessed.	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. However, some upper elements of the eastern extent of the train maintenance shed may remain partially visible in the middle distance. The magnitude of change may reduce to <b>low</b> and a precautionary <b>minor</b> adverse effect is assessed.	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Lighting at Annandale depot may be largely screened by mature intervening mitigation planting. At night, the magnitude of change may reduce to <b>negligible</b> and a precautionary <b>negligible</b> adverse effect is assessed.	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which would result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 803-03-010: view north-west from Bensmoor Wood to Douglas Steading Core Path

This viewpoint is representative of views experienced by users of the core path.

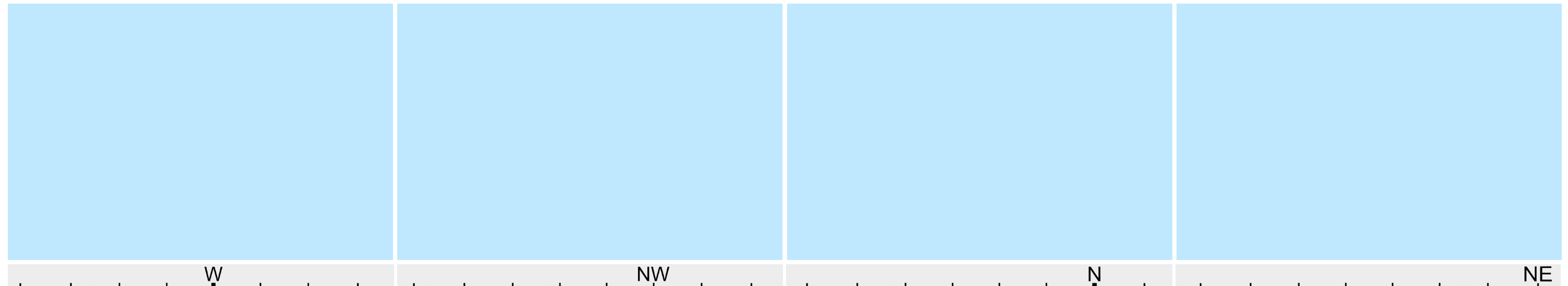
## Winter view (baseline)

Date taken: 18/03/2021 Time taken: 13:48

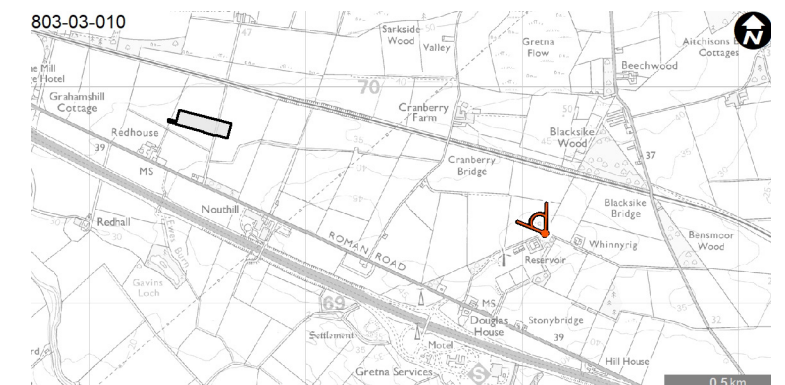


## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens	
<b>Approximate GPS co-ordinates ref.</b>	331108.733, 569324.03	
<b>Elevation:</b>	47.616m Above Ordnance Datum (AOD)	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium-high</b> value as views are from a core path.	<b>Sensitivity of the receptor:</b>  <b>High</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . The attention of recreational receptors is focused on the landscape. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 803-03-010: view north-west from Bensmoor Wood to Douglas Steading Core Path

## Visual baseline description

<b>Winter</b>	Near-distance views are across the fields west and north of the core path. Terrain is largely level and trimmed hedgerows along access track and field boundaries allow views into adjacent fields. In the middle distance, Cranberry Farm access accommodation bridge over WCML is noticeable, and though field boundary hedges link with WCML trackside vegetation to filter the visibility of train movements, overhead line equipment along WCML is visible. The pylons of a 132kV overhead power line are prominent, seen against the skyline. In the far distance, north of WCML agricultural land rises, with field boundary vegetation and small woodlands seen against the horizon. On a clear day, the upper elements of wind turbines at Ewe Hill windfarm are visible.
<b>Summer</b>	Vegetation in leaf appears more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable. Vegetation in leaf filters views of the WCML and the rising agricultural land to the north. The overhead power line and pylons remain visually prominent.
<b>Night-time</b>	The night-time baseline is not described for this viewpoint, as night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Users of the core path will have near and middle-distance views of large-scale construction works including the construction of southern reception tracks, the carriage washing plant and Cranberry Farm accommodation overbridge and works in association with the undergrounding of a 132kV overhead power line. Cranberry Farm accommodation overbridge satellite compound, large-scale earthworks and temporary material stockpiles will be uncharacteristic elements introduced into rural views and will be visible across the majority of the view in the middle distance. Removal of intervening field boundary vegetation will open up views of construction activity and the emerging structures. Construction traffic using Cranberry Farm access track will introduce uncharacteristic vehicle movements into middle-distance views. The presence of construction activity, including Annandale depot main compound, cranes and taller construction machinery, together with the emerging maintenance shed and accommodation building will be visible below the skyline. The magnitude of change will be <b>medium</b> .	<b>Moderate adverse (significant)</b>
<b>Construction night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

		<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>	Core path users will experience a noticeable change to middle-distance views. The Proposed Scheme including southern reception tracks, the carriage washing plant, a pumping station and storage tank, and Cranberry Farm accommodation overbridge, will be new and uncharacteristic elements in views south of WCML within a predominantly rural landscape. In the near distance, the eastern extent of southern reception tracks in shallow cutting will be largely screened by landscape earthworks, as will Annandale depot traction sub-station and the carriage washing plant, west of Cranberry Farm access track. The upper elements of the overhead line equipment and train movements along southern reception tracks will be partially visible above the line of the earthworks. Cranberry Farm accommodation overbridge will be a new raised element within the view, more noticeable than the WCML accommodation bridge due to its height and length. There will be views along the length of Annandale depot including the maintenance shed, accommodation building and overhead line equipment along southern reception tracks and in depot sidings. These will be new and uncharacteristic, large-scale elements introduced into views of the wider agricultural setting. The two sealing end pylons will be visible following the undergrounding of a 132kV overhead power line but will be seen in the context of existing pylons. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting in association with landscape earthworks north of Ewes Burn, on the Cranberry Farm accommodation overbridge embankments and along field boundaries, will largely filter views of the lower elements of the Proposed Scheme. However, the upper scheme elements at Annandale depot including the maintenance shed, accommodation building will remain visible in the middle distance above the line of mitigation planting. The magnitude of change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of mitigation planting will further filter views of the Proposed Scheme. Views of taller scheme elements of the at Annandale will be largely filtered with little visibility of the Proposed Scheme at Annandale depot in the middle distance of the view. The magnitude of visual change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>	Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 803-03-010: view north-west from Bensmoor Wood to Douglas Steading Core Path

This viewpoint is representative of views experienced by users of the core path.

## Current baseline - winter view

Date taken: 18/03/2021. Time taken: 13:48.



## Winter verifiable photomontage - construction

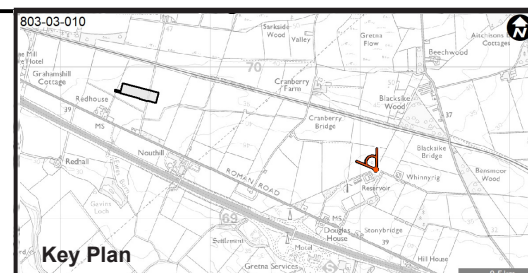


The viewpoint has been taken approximately 1538m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-785. For full details of the visual assessment at viewpoint 803-03-010 refer to Volume 5: Appendix LV-001-OR003, Part 3

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	331108.733, 569324.03	<b>Direction of View:</b>	328.291°
<b>Elevation:</b>	47.616m AOD	<b>Height of Camera:</b>	1.475m

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look during the peak construction to help inform the visual impact assessment. The construction methods and siting of construction activities of the LV-01-785 Proposed Scheme may be subject to change in response to consultation and ongoing design. The extent of land required temporarily to construct the Proposed Scheme will not extend beyond that shown in the photomontage. Changes in the construction of the Proposed Scheme will not result in any significant adverse change in the environmental effects reported in the assessment.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).



<b>Map Number</b>	LV-01-785
<b>Map Name</b>	Verifiable Photomontage Peak Construction Phase - Winter Viewpoint 803-03-010
<b>Community Area :</b>	OR003

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**Date:** Jun 21



# Viewpoint 803-03-010: view north-west from Bensmoor Wood to Douglas Steading Core Path

This viewpoint is representative of views experienced by users of the core path.

## Current baseline - winter view

Date taken: 18/03/2021. Time taken: 13:48.



## Winter verifiable photomontage - operation year 1

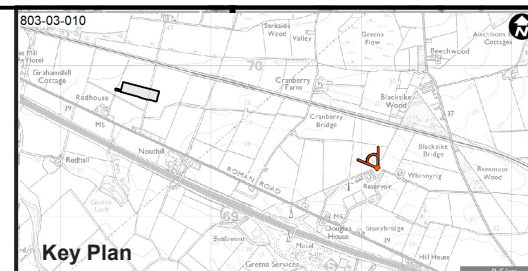


The viewpoint has been taken approximately 1538m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-786. For full details of the visual assessment at viewpoint 803-03-010 refer to Volume 5: Appendix LV-001-OR003, Part 3

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	331108.733, 569324.03	<b>Direction of View:</b>	328.291°
<b>Elevation:</b>	47.616m AOD	<b>Height of Camera:</b>	1.475m

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look in 2038 (opening year) to help inform the visual impact assessment. The design of the LV-01-786 Proposed Scheme may be subject to design development in response to consultation. Development of detail design after Hybrid Bill submission will not result in any significant adverse change in the environmental effects reported in the assessment. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).



<b>Map Number</b>	LV-01-786
<b>Map Name</b>	Verifiable Photomontage Operation Year 1 (2038) - Winter Viewpoint 803-03-010
<b>Community Area :</b>	OR003

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**Date:** Jun 21



# Viewpoint 803-02-011: view south-west from south of Milligansbush

This viewpoint is representative of views experienced by residents on the local road south of Milligansbush and Milligansbush Bridge.

## Winter view (baseline)

Date taken: 30/03/2021 (stitched panorama)

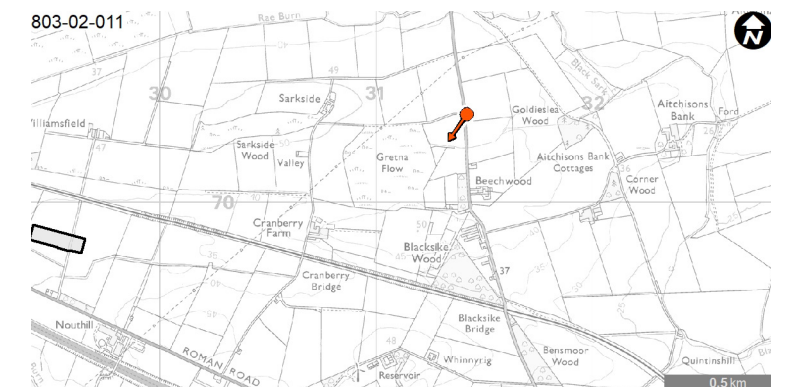


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	331419, 570408	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	High





# Viewpoint 803-02-011: view south-west from south of Milligansbush

## Visual baseline description

<b>Winter</b>	There are near-distance views along the minor road between Gretna Green and Chapelknowe. Hedgerows with intermittent trees line the road, allowing views of agricultural land beyond. The terrain is largely level. In the middle distance, field boundary hedges, roadside and hedgerow trees and small areas of woodland, link with buildings on both sides of the road at Beechwood and beyond at Blacksike, forming an intermediate horizon. To the south, land rises gently towards the WCML. To the west, an overhead power line runs from the middle distance towards gently rising terrain in the far distance. East of the power line, buildings at Cranberry Farm are visible against the horizon. In the far-distance, views extend to the Lake District fells on clear days.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening hedgerows and small woodlands are more noticeable. Vegetation in leaf to the south and south-west further filters and screens the visibility of buildings in the middle distance. The views of Lake District fells on clear days remain.
<b>Night-time</b>	In this rural area north of Gretna Green, lighting is limited to scattered farms, cottages and businesses. Traffic headlights can mark the location of local roads, lanes and access tracks.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Residents will experience a slight change to oblique views in the middle and far distance in association with the undergrounding of a section of 132kV overhead power line north of the WCML, and the construction of Cranberry Farm accommodation overbridge and Annandale depot. The upper elements of construction equipment, including cranes will be visible within the Cranberry Farm accommodation overbridge satellite compound and Annandale depot main compound. These will be discrete thin elements discernable across a small proportion of the view and seen against the skyline. The removal of field boundary vegetation and the loss of agricultural land will not be a noticeable change to the character of the baseline view. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
<b>Construction night-time</b>		Residents will have oblique, middle-distance views of artificial lighting at Cranberry Farm accommodation overbridge satellite compound which will create a localised area of sky-glow seen above intervening vegetation, within a largely unlit, rural landscape. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there will be a <b>negligible</b> magnitude of change.	<b>Negligible (non-significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>		Residents will experience a limited change to oblique views in the middle and far distance, across a small proportion of the view. The extent of overhead power line within the view will be shorter compared to the baseline, with a sealing end tower visible to the west, beyond Cranberry Farm. The upper section of depot buildings at Annandale depot will be glimpsed between and beyond intervening woodland and field boundary hedgerows. However, mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Residents will have views of operational lighting at Annandale depot including lighting to the depot sidings and pedestrian paths between work areas in the far distance. This new area of light source within a largely unlit, rural landscape and will create a localised area of sky-glow largely screened by intervening vegetation. The lights will be designed to reduce the visual impact of the lighting installation. At night there will be a <b>negligible</b> magnitude of change.	<b>Negligible (non-significant)</b>
<b>Year 15</b>	<b>Summer</b>		Maturing mitigation planting will largely filter oblique views of the Proposed Scheme in the middle and far distance. The magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Views of operational lighting at Annandale depot will be largely screened by intervening vegetation and maturing mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of intervening mitigation planting will further screen oblique views of the Proposed Scheme. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Views of operational lighting at Annandale depot will be largely screened by intervening vegetation and mature mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 803-02-012: view north from Stonehouse

This viewpoint is representative of views experienced by residents at Stonehouse and along the local road from the A75 towards Gretna Services.

## Winter view (baseline)

Date taken: 30/03/2021 (stitched panorama)

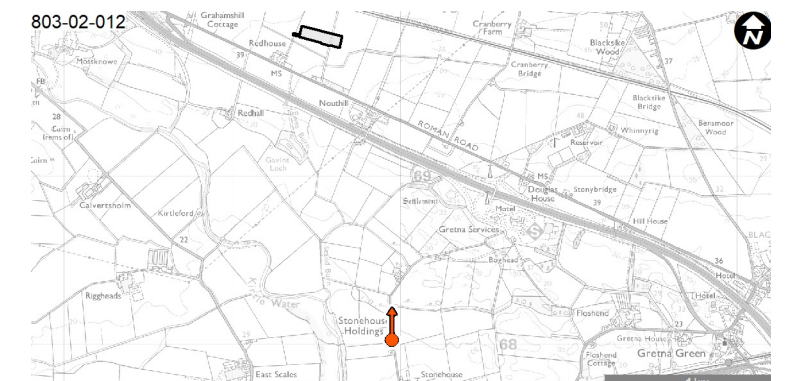


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	329951, 568025	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	<b>High</b>





# Viewpoint 803-02-012: view north from Stonehouse

## Visual baseline description

<b>Winter</b>	There are near-distance views along an access track north of the A75 linking properties and farms at Stonehouse. Hedgerows with some hedgerow trees line the track and allow views of agricultural land beyond. Terrain falls steadily to the north to tributary streams of the Stand and Ewes Burns and west towards the valley of Kirtle Water. In the middle distance, agricultural land rises beyond the Stand and Ewes Burns and their tributary streams towards the A74(M) and B7076 Glasgow Road. South of the A74(M), an overhead power line crosses the view from north-east to south-west. In the far-distance, views extend over rising terrain north of the B7076 Glasgow Road towards conifer plantations on the slopes of higher land around the upper reaches of Kirtle Water.
<b>Summer</b>	During the summer, vegetation in leaf including intervening field boundary hedgerows, mature hedgerow trees and small woodlands is more prominent within the view. Vegetation in leaf filters and further screens the visibility of the A74(M) and B7076 Glasgow Road road corridors and the rising agricultural land to the north.
<b>Night-time</b>	Lighting in this rural area between Gretna and Kirkpatrick Fleming is limited to scattered farms, cottages and businesses, including Gretna Service area. Traffic headlights can mark the location of the A74(M) and local roads and lanes.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Residents will have middle to far-distance views of construction traffic using a construction traffic route over the A74(M) and vehicle turning area in the Gretna Services fuel station. However, these traffic movements will not be uncharacteristic in the view. There will be far-distance views of taller elements of construction works, including cranes, to the north of the A47(M) road corridor. Construction activity will be visible across a small proportion of the view and views will be largely filtered through intervening vegetation. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
<b>Construction night-time</b>		Residents will have far-distance views of artificial lighting at Cranberry Farm accommodation overbridge satellite compound and Annandale depot main compound. These new areas of light source will create localised areas of sky-glow seen above intervening vegetation, within a largely unlit, rural landscape, but viewed in the context of traffic headlights on the A74(M) and B7076 road corridors and Gretna Service area. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there will be a <b>low</b> magnitude of change.	<b>Minor adverse (non-significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>
		<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>	Residents will experience a slight change to far-distance views, across a small proportion of the view. Views of the upper elements of Annandale depot will be largely filtered through intervening field boundary hedgerows and woodlands. Newly planted mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Residents will have distant views of operational lighting at Annandale depot including lighting to the depot sidings and pedestrian paths between work areas in the far distance. This new area of light source will create a localised area of sky-glow, seen above intervening vegetation, within a largely unlit, rural landscape, but viewed in the context of traffic headlights on the A74(M) and B7076 road corridors. The Gretna Service area lights will be designed to reduce the visual impact of the lighting installation. At night there will be a <b>negligible</b> magnitude of change.	<b>Negligible (non-significant)</b>
<b>Year 15</b>	<b>Summer</b>	Far-distance views of the Proposed Scheme will be largely filtered through intervening vegetation and maturing mitigation planting. The magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>	Views of operational lighting associated with Annandale depot will be largely filtered through intervening vegetation and maturing mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>	Far-distance views of the Proposed Scheme will continue to be largely filtered through intervening vegetation and mature mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>	Mature mitigation planting and intervening vegetation will largely filter views of operational lighting as Annandale depot. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-02-001: view north from Redhouse Farm and Cottage

This viewpoint is representative of views experienced by residents of Redhouse Farm and Redhouse Cottage.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)

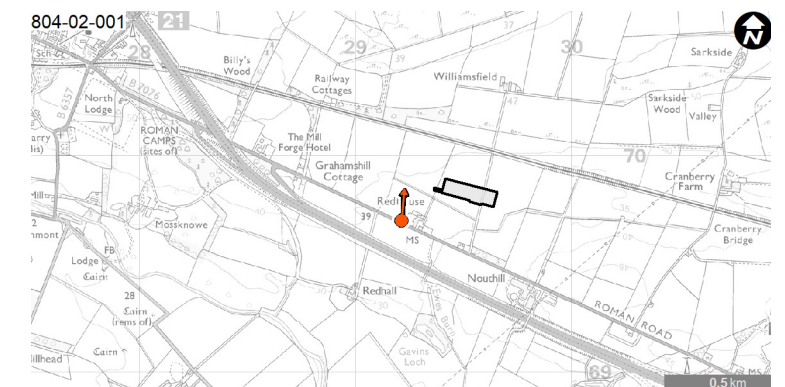


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	329304 , 569750	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>  <b>High</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 804-02-001: view north from Redhouse Farm and Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views of agricultural land with hedgerows and trees to field boundaries, immediately north of the B7076 Glasgow Road. Farm outbuildings partially screen views north and west from the farmhouse. Largely level terrain extends north towards WCML. Redhouse Cottage is single storey and views are partially filtered through stream-side vegetation along Ewes Burn. A telegraph line parallel with and south of WCML breaks the horizon. In the middle distance, trackside vegetation marks the route of WCML, with views of train movements. Beyond WCML, field boundary hedgerows, small blocks of woodland and individual trees are noticeable within the rising terrain. In the far distance there are intervening layers of field boundary vegetation, with narrow woodland blocks seen against the skyline.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and filters views of the WCML and beyond. Leaf cover brings the focus of attention to the near and middle distance. Views from Redhouse Cottage are further filtered through garden vegetation and by waterside growth along Ewes Burn.
<b>Night-time</b>	This rural area between Greta and Kirkpatrick Fleming has limited light sources except for scattered farms, cottages and businesses and from traffic on local roads and lanes.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including the construction of Annandale depot maintenance shed, accommodation building, depot sidings and access underpass and the northern reception track. Some views will be filtered through intervening vegetation and screened by intervening farm buildings. Annandale depot main compound, large-scale earthworks and temporary material stockpiles will be introduced into views of the agricultural landscape, woodland and road and rail infrastructure. Construction traffic accessing the main construction area from the B7076, will introduce additional and uncharacteristic traffic movements into views. The removal of field boundary and streamside vegetation and the change from agricultural land use will be noticeable. Activities during the construction of the access road, car park, balancing ponds, together with cranes and taller construction machinery associated with the emerging maintenance shed and accommodation building will be prominent within the view with the depot sidings and the northern reception track visible beyond. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Residents will have near-distance views of artificial lighting at Annandale depot main compound. This will be a new area of light source in a largely unlit, rural landscape. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night, there will be a <b>high</b> magnitude of change.	<b>Major adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>
		<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>	Residents will experience a substantial change to the rural character of near and middle-distance views. Annandale depot will introduce new and large-scale infrastructure elements into views of the agricultural landscape, woodland and road and rail infrastructure. The Proposed Scheme will be at a far greater scale and closer in the view than WCML and will be visible across the majority of the view. However, some views will be filtered through intervening garden vegetation and screened by intervening farm buildings and landscape earthworks. The access road off the realigned B7076 will be seen in the near distance, with views of the upper elements of Annandale depot accommodation building and maintenance shed visible beyond. The maintenance shed will form the new skyline across a large proportion of the view. The proximity and height of the maintenance shed and landscape earthworks will foreshorten some views northwards, screening views of higher rural land beyond WCML. Train movements and overhead line equipment at the depot sidings and northern reception track will be visible in the middle distance and seen in the context of WCML. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
	<b>Night-time</b>	Residents will have views of operational lighting at Annandale depot including lighting to the depot sidings and pedestrian paths between work areas, seen beyond and to either side of the train maintenance shed. This new area of light source will create a localised area of sky glow seen above intervening landscape earthworks and within a largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. At night there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting in association with landscape earthworks and along the Annandale depot access road off the realigned B7076 Glasgow Road, will partially filter views of the lower extents of the maintenance shed, accommodation building and depot sidings in the near distance. However, the upper extents of the main elevation of the maintenance shed and accommodation building will remain prominent within the view, seen against the skyline. East and west of the maintenance shed, some upper elements of train movements and overhead line equipment in the depot sidings will also be visible. Although mitigation planting will help to integrate the Proposed Scheme, a substantial alteration to the characteristics of the view will remain. The magnitude of change will remain <b>high</b> .	<b>Major adverse (significant)</b>
	<b>Night-time</b>	Operational lighting at Annandale depot will create a localised area of sky-glow seen above intervening vegetation within a largely unlit, rural landscape. Lighting will be largely filtered through intervening vegetation. The magnitude of change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of mitigation planting will provide denser screening in summer months reducing the visibility of overhead line equipment and train movements. However, some visibility of the upper elements of the train maintenance shed will remain. The magnitude of change will reduce to <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Maturing mitigation planting will further filter views operational lighting at Annandale depot. At night, the magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-02-002: view north-east from Grahamshill Cottage

This viewpoint is representative of views experienced by residents of Grahamshill Cottage and East Lodge.

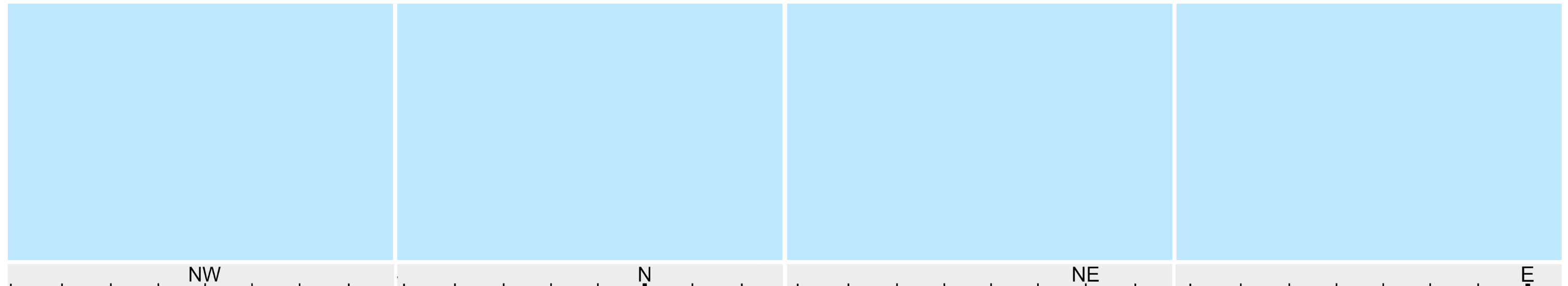
## Winter view (baseline)

Date taken: 18/03/2021 Time taken: 11:07

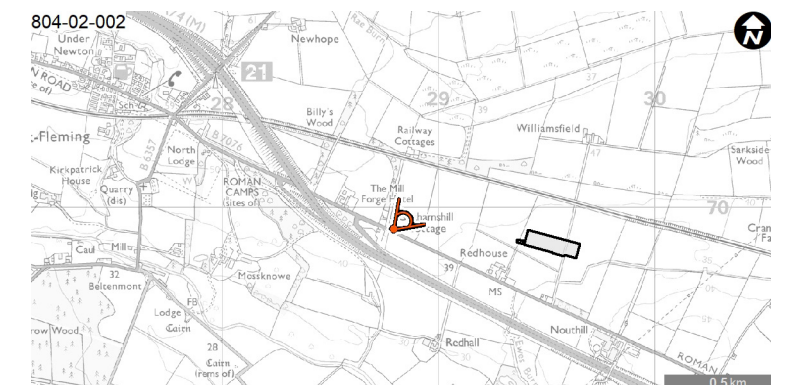


## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens	
<b>Approximate GPS co-ordinates ref.</b>	328793.263, 569900.924	
<b>Elevation:</b>	43.575m AOD	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b> <b>High</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 804-02-002: view north-east from Grahamshill Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views of garden vegetation and field boundary vegetation immediately east of an access track leading from the B7076 Glasgow Road, north to WCML. East of the access track, agricultural land with gapped field boundary hedgerows and mature hedgerow trees extends north on gently rising terrain towards WCML, the route marked by trackside vegetation and overhead line equipment. A telegraph line crosses the view from east to west. In the middle distance, to the north, immediately beyond WCML, Grahamshill Railway Cottage is visible, whilst to the west are the buildings at Redhouse Farm, north of the B7076 Glasgow Road. Rising terrain north of WCML is largely screened by intervening field boundary and trackside vegetation and a narrow woodland belt immediately beyond the railway. However, some far-distance views over intervening vegetation are available in the north east, with overhead power lines and the wind turbines of Beck Burn windfarm at Solway Moss visible.
<b>Summer</b>	Vegetation in leaf is more prominent in the view, with hedgerow gaps appearing less noticeable. Boundary hedgerows and trackside vegetation filter views towards WCML, with views on rising terrain to the north screened.
<b>Night-time</b>	Lighting in this rural area has limited light sources in views looking north and east, with the exception of scattered farms and cottages. Headlights from traffic on the B7076 Glasgow Road and A74(M) are noticeable.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including construction of the northern reception track and headshunt, and modifications to the WCML. Large-scale construction works and temporary material stockpiles will be introduced into views of the farmed landscape, woodland and rail infrastructure. Construction activity will be visible across a large proportion of the view. However, some views will be partially filtered through intervening vegetation and screened by intervening buildings. The removal of sections of field boundary hedgerows, trackside vegetation and sections of the narrow belt of woodland north of Grahamshill Cottage and the loss of agricultural land will change the composition of the view and will open up views of construction activity and the emerging structures. Taller elements of construction plant, traffic movements and the emerging structures of the Proposed Scheme will be seen in oblique views to the east in the middle distance and viewed against the skyline across a proportion of the view. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Residents will have oblique views of artificial lighting at Annandale depot main compound. This new area of light source will create a localised area of sky glow seen in the middle distance. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>
		Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>	Residents will experience a substantial change to the composition of views in the middle distance. Landscape earthworks south of the headshunt cutting, modifications to WCML, northern reception track, train maintenance shed, accommodation building and depot sidings will be new large-scale elements introduced into views of the agricultural landscape. The headshunt will be in cutting and the northern reception track will run parallel to the WCML. Although views will be in the context of the WCML, the Proposed Scheme will be at a much larger scale than existing rail infrastructure. Landscape earthworks south and west of the headshunt cutting and balancing pond will screen the headshunt and lower sections of the depot sidings, although taller elements including the maintenance shed, accommodation building, overhead line equipment and train movements will be visible above the line of the earthworks. The maintenance shed and accommodation building will be new and uncharacteristic buildings, prominent within the view and will create a new skyline across a small proportion of the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme. The magnitude of visual change will be <b>high</b> .	<b>Major adverse (significant)</b>
	<b>Night-time</b>	Operational lighting associated with Annandale depot will create a localised area of sky-glow seen above intervening vegetation and within a largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. At night, there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>	Maturing mitigation planting in association with landscape earthworks and new hedgerow planting will partially filter views of lower elements of the Proposed Scheme. However, taller elements including the upper elevation of the maintenance shed and accommodation building will be noticeable in the middle distance, seen above the landscape mitigation planting and visible against the skyline. Near-distance views over agricultural land south of the WCML will include replacement field boundary hedgerows filtering views of landscape earthworks south of the headshunt. Woodland planting between the headshunt and the northern reception track will largely screen views further north, beyond the WCML. Woodland planting on the landscape earthworks south and west of the maintenance shed and south of the northern reception track will foreshorten views to the north and east. A noticeable alteration in the character of views resulting from the Proposed Scheme will remain, although partially screened by intervening vegetation. The magnitude of change will reduce to <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>	Views of operational lighting associated with Annandale depot will be partially filtered through maturing mitigation planting. At night, the magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>	The greater maturity of the mitigation planting will further screen views of the Proposed Scheme. However, some taller elements at Annandale depot will be visible, partially screened by intervening vegetation. The magnitude of visual change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>	Operational lighting associated with Annandale depot will continue to be largely filtered through intervening mitigation planting. The magnitude of visual change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-02-002: view north-east from Grahamshill Cottage

This viewpoint is representative of views experienced by residents of Grahamshill Cottage and East Lodge.

## Current baseline - winter view

Date taken: 18/03/2021. Time taken: 11:07.



## Winter verifiable photomontage - construction



The viewpoint has been taken approximately 571m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-787. For full details of the visual assessment at viewpoint 804-02-002 refer to Volume 5: Appendix LV-001-OR003, Part 3.

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look during the peak construction to help inform the visual impact assessment. The construction methods and siting of construction activities of the LV-01-787 Proposed Scheme may be subject to change in response to consultation and ongoing design. The extent of land required temporarily to construct the Proposed Scheme will not extend beyond that shown in the photomontage. Changes in the construction of the Proposed Scheme will not result in any significant adverse change in the environmental effects reported in the assessment.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	328793.263, 569900.924	<b>Direction of View:</b>	26.675°
<b>Elevation:</b>	43.575m AOD	<b>Height of Camera:</b>	1.619m

<p><b>Key Plan</b></p>	Map Number LV-01-787	<p>HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered in England. Registration number 06791686. Registered office: One Canada Square, London, E14 5AB.</p> <p>© Crown copyright and database rights 2020. Ordnance Survey Licence Number 100049190.</p>
	Map Name Verifiable Photomontage Peak Construction Phase - Winter Viewpoint 804-02-002	
	Community Area : OR003	

Date: Jun 21



# Viewpoint 804-02-002: view north-east from Grahamshill Cottage

This viewpoint is representative of views experienced by residents of Grahamshill Cottage and East Lodge.

## Current baseline - winter view

Date taken: 18/03/2021. Time taken: 11:07.



## Winter verifiable photomontage - operation year 1

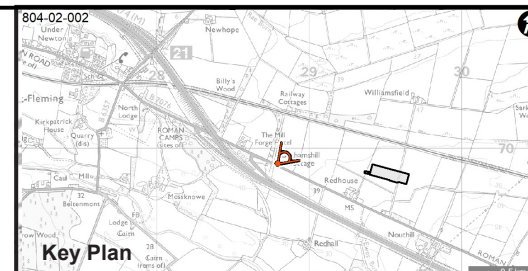


The viewpoint has been taken approximately 571m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-788. For full details of the visual assessment at viewpoint 804-02-002 refer to Volume 5: Appendix LV-001-OR003, Part 3.

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	328793.263, 569900.924	<b>Direction of View:</b>	26.675°
<b>Elevation:</b>	43.575m AOD	<b>Height of Camera:</b>	1.619m

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look in 2038 (opening year) to help inform the visual impact assessment. The design of the LV-08-OR003 Proposed Scheme may be subject to design development in response to consultation. Development of detail design after Hybrid Bill submission will not result in any significant adverse change in the environmental effects reported in the assessment. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).



<b>Map Number</b>	LV-01-788
<b>Map Name</b>	Verifiable Photomontage Operation Year 1 (2038) - Winter Viewpoint 804-02-002
<b>Community Area :</b>	OR003

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**Date:** Jun 21



# Viewpoint 804-02-003: view north-east from The Mill Forge hotel and wedding venue

This viewpoint is representative of views experienced by residents and hotel guests.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)



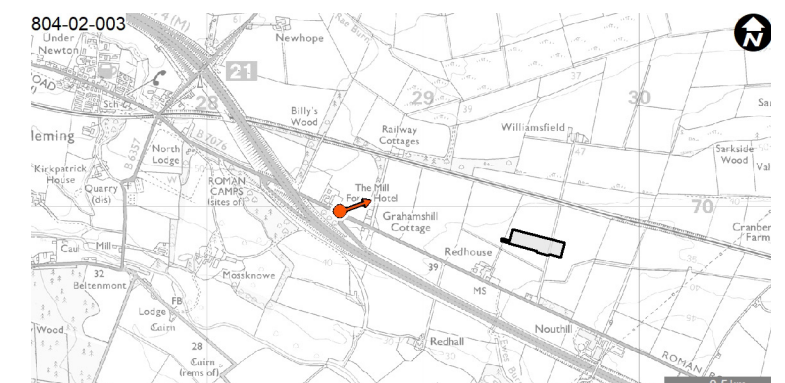
## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length
<b>Approximate GPS co-ordinates ref.</b>	328583, 570085
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment and the attention of the wedding venue and hotel guests are partially focused on the landscape. They are both therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.

**Sensitivity of the receptor:**  
**High**



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# Viewpoint 804-02-003: view north-east from The Mill Forge hotel and wedding venue

## Visual baseline description

<b>Winter</b>	This viewpoint is located on the B7076, east of Kirkpatrick-Fleming. There are near-distance views of agricultural land north of the road, seen over a low hedge. Terrain rises gently towards a narrow belt of hedgerows and mature trees north of the B7076, lining a track extending from Grahamshill Cottage to south of WCML. This narrow belt of vegetation forms a low horizon in the middle distance, linking with WCML trackside trees and hedgerows and largely screening views of agricultural land further east. Roadside hedges and mature trees line the B7076 to the east and screen views of an A74(M) on-slip. A narrow extent of far-distance view is glimpsed to the north beyond WCML, with rising agricultural land bounded by hedgerows and hedgerow trees. However, a narrow belt of woodland north of WCML restricts the width of the far-distance view.
<b>Summer</b>	Vegetation in leaf appears more prominent in the view and gaps in hedgerows and in the narrow belt of woodland north of Grahamshill Cottage are less evident. Vegetation filters views towards WCML and rising land beyond. Summer foliage brings the focus of attention to the near and middle distance, with distant views of the skyline being more filtered.
<b>Night-time</b>	This rural area has limited light sources in views looking north and east, with the exception of scattered farms and cottages. Headlights from traffic on the A74(M) and the B7076 are noticeable.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including construction of the northern reception track and headshunt, and modifications to the WCML. Large-scale construction works and temporary material stockpiles will be introduced into views of the farmed landscape, woodland and rail infrastructure. Construction activity will be visible across a large proportion of the view. However, some views will be partially filtered through intervening vegetation and screened by intervening buildings. The removal of sections of field boundary hedgerows, trackside vegetation, parts of the narrow belt of woodland north of Grahamshill Cottage and the loss of agricultural land will change the composition of the view and will open up views of construction activity and the emerging structures. Taller elements of construction plant and emerging structures of the Proposed Scheme will be seen in oblique views to the east in the middle distance and viewed against the skyline across a proportion of the view. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Residents will have oblique views of artificial lighting at Annandale depot main compound. This new area of light source will create a localised area of sky-glow seen in the middle distance. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night, there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>		Residents and hotel guests will experience a substantial change to the composition of views in the middle distance. Landscape earthworks south of the headshunt cutting, modifications to WCML, northern reception track, train maintenance shed, accommodation building and depot sidings will be new large-scale elements introduced into views of the, woodland and rail infrastructure. The headshunt will be in cutting and the northern reception track will run parallel to the WCML. Although views will be in the context of WCML, the extent of the Proposed Scheme will be at a much larger scale than the existing rail infrastructure. Vegetation removed during construction will allow open views to the north. Landscape earthworks south and west of the headshunt cutting and a balancing pond will screen the headshunt and lower sections of the Proposed Scheme, although taller elements including the maintenance shed, accommodation building, overhead line equipment and train movements will be visible above the line of the earthworks. The maintenance shed and accommodation building will be new and uncharacteristic buildings, prominent within the view and will create a new skyline across a small proportion of the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme. The magnitude of visual change will be <b>high</b> .	<b>Major adverse (significant)</b>
	<b>Night-time</b>		Operational lighting associated with Annandale depot will create a localised area of sky glow seen above intervening vegetation and within a largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. At night, there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>		Maturing mitigation planting in association with landscape earthworks and new hedgerow planting will partially filter views of lower elements of the Proposed Scheme. However, taller elements including the upper elevation of the depot maintenance shed and accommodation building will be noticeable in the middle distance, seen above the landscape mitigation planting and against the skyline. Near-distance views over agricultural land south of the WCML will include replacement field boundary hedgerows filtering views of landscape earthworks south of the headshunt. Woodland planting between the headshunt and the northern reception track will largely screen views further north, beyond the WCML. Woodland planting on the landscape earthworks south and west of the maintenance shed and south of the northern reception track will foreshorten views to the north and east. A noticeable alteration in the character of views resulting from the Proposed Scheme will remain, although partially screened by intervening vegetation. The magnitude of change will reduce to <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>		Views of operational lighting associated with Annandale depot in the middle distance, will be partially filtered through intervening and maturing mitigation planting. At night, the magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. The magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Middle-distance views of operational lighting associated with Annandale depot will be largely filtered through intervening mature mitigation planting. At night, the magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>	



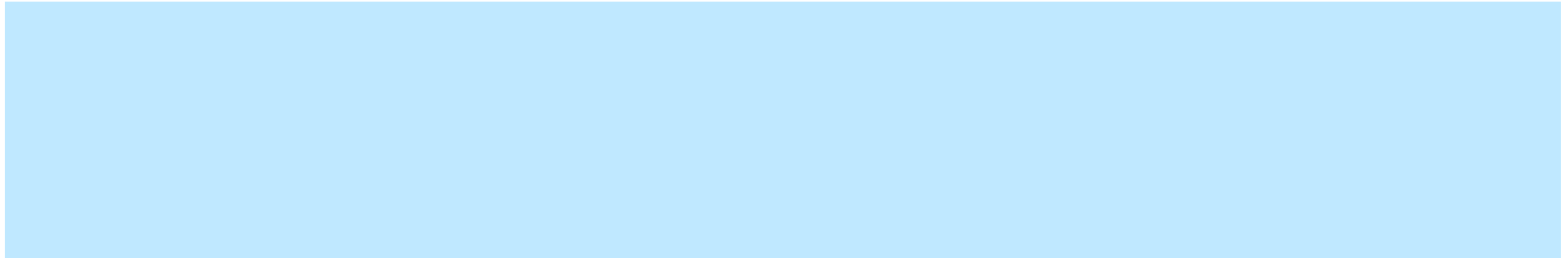
# Viewpoint 804-02-004: view south-east from Grahamshill Railway Cottage

This viewpoint is representative of views experienced by residents of Grahamshill Railway Cottage.

Viewpoint not visited; judgments based on a precautionary approach.

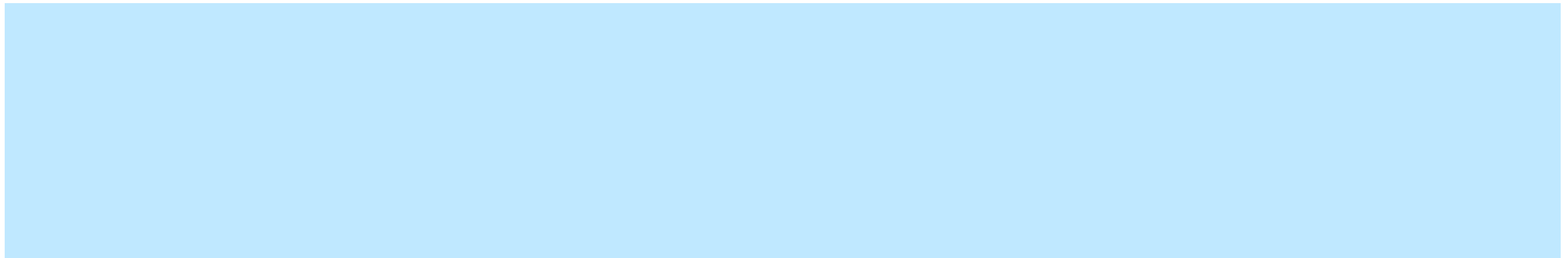
## Winter view (baseline)

It has not been possible to capture winter photography.

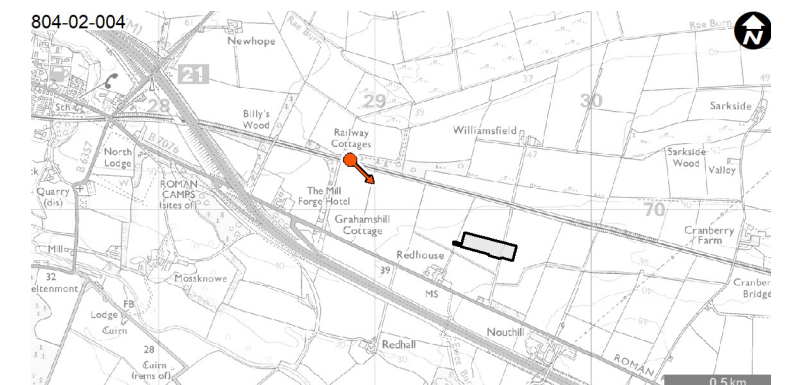


## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Not applicable	
<b>Approximate GPS co-ordinates ref.</b>	328885, 570231	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b> <b>High</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment and are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 804-02-004: view south-east from Grahamshill Railway Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views of garden vegetation and WCML trackside vegetation. South of WCML, terrain falls gently towards the B7076 Glasgow Road. Agricultural fields are lined by hedgerows and hedgerow trees. A narrow belt of mature vegetation west of a track from the B7076 Glasgow Road at Grahamshill cottage to south of WCML screens views to the west, whilst woodland immediately north of WCML closes the eastern view. In the middle distance, traffic movements on the B7076 Glasgow Road may be visible through intervening roadside and field boundary vegetation, although vehicle movements on the A74(M) further south may be largely screened by a combination of a cutting and roadside vegetation. Far distance views may extend beyond the A74(M) over the Kirtle Water valley. On a clear day Solway Firth may be visible.
<b>Summer</b>	Vegetation in leaf vegetation is more prominent in the view and gaps in field boundary hedgerows are less evident. Vegetation in leaf further may filter views of traffic movements on the B7076 Glasgow Road and A74(M).
<b>Night-time</b>	Light sources in this rural area are limited to lighting at scattered farms and cottages and vehicle headlights on the A74(M), B7076 Glasgow Road and local lanes.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including construction of the northern reception track, Annandale depot maintenance shed, accommodation buildings, depot sidings and headshunt, and modifications to the WCML. Construction activity, large-scale earthworks and temporary material stockpiles may replace views across WCML to the farmed, rural landscape. There will be a substantial change to the character of the view. The removal of field boundary hedgerows with mature trees and small areas of woodland will open up views of construction activity and the emerging structures. There may be oblique views of Annandale depot main compound and the construction of the maintenance shed, depot sidings and accommodation building in the middle distance. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Artificial lighting associated with Annandale depot main compound may create a localised area of sky glow seen in the middle distance in oblique views. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>		Residents will experience a substantial change to the composition of views in the near and middle distance. The northern reception track, headshunt and modifications to WCML will be new large-scale infrastructure elements introduced into near-distance views of WCML and the rural farmed landscape. The Proposed Scheme will be at a much greater scale than existing rail infrastructure and may be visible across the entire view. The northern reception track will run parallel to the WCML and the headshunt will be in cutting. There may be views of upper elements of the Proposed Scheme including overhead line equipment and train movements, but these will be seen in the context of the WCML. Annandale depot maintenance shed, accommodation building and depot sidings may be visible in the middle distance in oblique views to the east and may form the skyline across a proportion of the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Night-time</b>		Residents may have middle-distance views of operational lighting at Annandale depot including lighting to the depot sidings and pedestrian paths between work areas. This new area of light source may create a localised area of sky glow above intervening landscape earthworks within a largely unlit, rural landscape. At night, there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>		The greater maturity of mitigation planting may largely screen views of the Proposed Scheme, although some taller elements may remain visible, above the line of mitigation planting. The magnitude of change may reduce to <b>low</b> and a precautionary <b>minor</b> adverse effect is assessed.	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Views of operational lighting at Annandale depot may be largely filtered through intervening mitigation planting. At night, there may be a <b>low</b> magnitude of change and a precautionary <b>minor</b> adverse non-significant effect is assessed.	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of the mitigation planting may further filter views of the Proposed Scheme. The magnitude of change may reduce to <b>negligible</b> and a precautionary <b>negligible</b> non-significant effect is assessed.	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Mature mitigation planting may screen views of operational lighting at Annandale depot. The magnitude of change may remain <b>negligible</b> and a precautionary <b>negligible</b> adverse non-significant effect is assessed.	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-03-005: view east from National Cycle Network route 74

This viewpoint is representative of views experienced by cyclists along a section of National Cycle Network route 74 following a minor road south-east of B6357 at Hollee.

## Winter view (baseline)

Date taken: 18/01/2021 (stitched panorama)

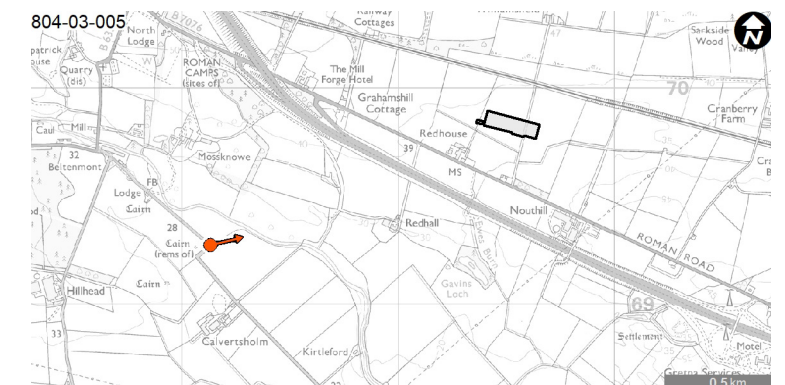


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	328132 , 569275	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium-high</b> value as it lies along part of the National Cycle Network.	<b>Sensitivity of the receptor:</b>  <b>Medium-High</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>medium-high</b> . The attention of recreational receptors is focused largely on the landscape. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 804-03-005: view east from National Cycle Network route 74

## Visual baseline description

<b>Winter</b>	There are near-distance views along a local lane lined by gapped, low hedgerows and post and rail fences. Views extend over gently falling terrain to Kirtle Water valley, marked by mature streamside trees and hedgerows. Mossknowe House is prominent on a low ridge beyond Kirtle Water, visible through a break in estate woodland. In the middle distance, land rises to the A74(M) and B7076 Glasgow Road corridors, with traffic movements screened by intervening field boundary vegetation. East of the road corridor, largely level agricultural land extends towards WCML, with glimpsed train movements. In the far distance, beyond WCML, hedged fields are visible on more steeply rising terrain, with small woodland belts and individual trees seen against the skyline.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable, especially when seen against the skyline. Vegetation in leaf filters and screens views of rising agricultural land to the north and east. Mossknowe House remains visible through a gap in vegetation along Kirtle Water.
<b>Night-time</b>	The night-time baseline is not described for this viewpoint, as night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and at healthcare institutions.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Users of NCN route 74 will have far-distance views of construction works for the Annandale depot and the construction of two new sealing end pylons as part of the undergrounding of a section of a 132kV overhead power line. Taller construction machinery, cranes and the emerging Annandale depot maintenance shed, depot sidings and accommodation building, will be introduced into views of an otherwise gently undulating, farmed landscape, woodland and the A74(M) and B7076 Glasgow Road road corridors. The construction works will be seen as a series of components in the far distance, across a small proportion of the view. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
<b>Construction night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>		Users of NCN route 74 will experience a slight change to the rural character of far-distance views. The upper elevation of Annandale depot maintenance shed and accommodation building will be visible across a small proportion of the view, partially filtered through intervening vegetation and seen in the context of the A74(M) and B7076 Glasgow Road road corridors. The loss of agricultural land across a small proportion of the view and the resultant alteration in character will be discernible. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 15</b>	<b>Summer</b>		Intervening vegetation and maturing mitigation planting in association with landscape earthworks, will largely filter views of the Proposed Scheme in the far distance. However, some extents of the upper elements of the train maintenance shed will be visible above the line of mitigation planting. The magnitude of change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. The magnitude of visual change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-02-006: view south-east from the B6357 at the Rae Burn

This viewpoint is representative of views experienced by residential receptors at Raeburnhead and Hayfield Cottage.

## Winter view (baseline)

Date taken: 30/03/2021 (stitched panorama)

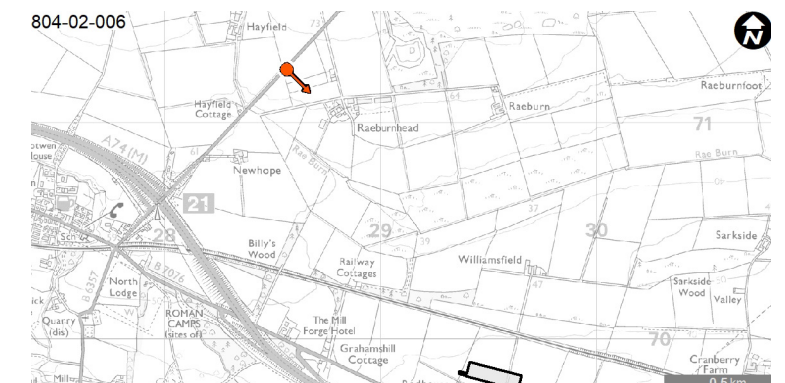


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	328568 , 571248	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residential receptors have a strong interest in their visual environment and are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	<b>High</b>





# Viewpoint 804-02-006: view south-east from the B6357 at the Rae Burn

## Visual baseline description

<b>Winter</b>	There are near-distance views along the B6357, Canonbie to Kirkpatrick-Fleming Road. Hedgerows with intermittent hedgerow trees line the road, allowing views of agricultural land beyond. To the east, a telegraph line runs parallel to the road. Terrain falls gently to the course of the Raeburn, crossed by the B5637 north of Hayfield Cottage. In the middle distance, field boundary hedges and hedgerow trees link with small woodlands, conifer plantations and buildings at Newhope Farm and Raeburnhead Farm to form an intermediate horizon, as terrain falls to the south towards trackside vegetation and woodland north of WCML. In the far distance, views of the Kirtle Water and beyond to Solway Firth are screened by intervening vegetation. However, on a clear day, the upper slopes of fells in the Lake District National Park beyond Solway Firth can be seen in the background of the view.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable, especially when seen against the skyline. Vegetation in leaf on the falling terrain to the south and south-west further filters and screens the visibility of land in the middle distance and of far-distance views of the Lake District fells on clear days. In the near-distance, telegraph lines remain visible.
<b>Night-time</b>	Lighting in this rural area north of Gretna and Kirkpatrick-Fleming is limited to scattered farms, cottages and businesses and background sky glow from the settlements. Traffic headlights can mark the location of local roads, lanes and access tracks.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		<b>Temporary effects during construction</b>	<b>Significance of effect</b>
<b>Construction</b>		Residents will have oblique, far-distance views of some upper elements of construction machinery associated with the construction of Annandale depot. Construction activity will be visible across a small proportion of the view and views will be largely filtered through intervening vegetation. The magnitude of change will be <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Construction night-time</b>		Residents will have far-distance views of artificial lighting at Annandale depot main compound. This new area of light source will create localised areas of sky-glow seen above intervening vegetation, within a largely unlit, rural landscape. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night there will be a <b>negligible</b> magnitude of change.	<b>Negligible (non-significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			<b>Permanent effects during operation</b>	<b>Significance of effect</b>
<b>Year 1</b>	<b>Winter</b>		Residents will experience a slight change to oblique views in the far distance. The visibility of Annandale depot buildings, depot sidings and associated infrastructure will be limited to the western extent of the train maintenance shed roof on clear days. Views will be largely filtered through intervening vegetation. However, mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views, the magnitude of change will be <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Residents will have far-distance views of operational lighting associated with Annandale depot. This new area of light source will create a localised area of sky-glow seen above intervening vegetation within a largely unlit, rural landscape. Lights will be designed to reduce the visual impact of the lighting installation. The magnitude of change will be <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 15</b>	<b>Summer</b>		Intervening vegetation and maturing mitigation planting in association with landscape earthworks will largely filter views of the Proposed Scheme. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Operational lighting associated with Annandale depot will be further filtered through maturing mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		Far-distance views of the Proposed Scheme will be further filtered through mature mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Operational lighting associated with Annandale depot will be further filtered through mature mitigation planting. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

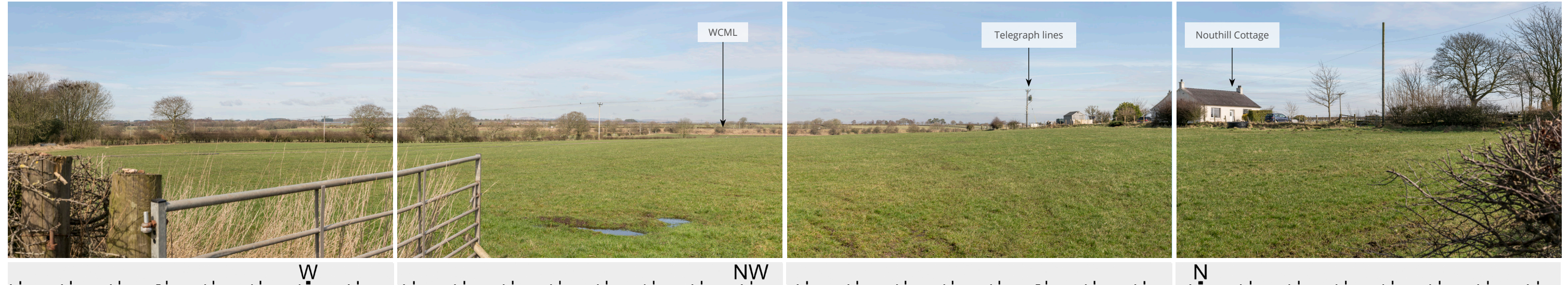


# Viewpoint 804-02-008: view north-west from Nouthill Farm and Cottage

This viewpoint is representative of views experienced by residents at Nouthill Farm and Nouthill Cottage.

## Winter view (baseline)

Date taken: 18/03/2021 Time taken: 12:30

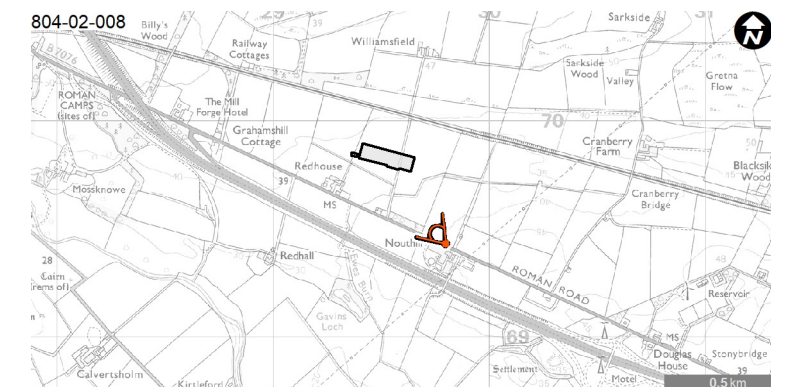


## Summer view (baseline)

Date taken: 03/06/2021 Time taken: 11:35



<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens
<b>Approximate GPS co-ordinates ref.</b>	329800.067, 569430.748
<b>Elevation:</b>	39.661m AOD
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.
<b>Sensitivity of the receptor:</b>	
<b>High</b>	





# Viewpoint 804-02-008: view north-west from Nouthill Farm and Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views over field boundary hedgerows to agricultural land north of the B7076 Glasgow Road. Terrain falls gently away to the north and west. A telegraph line is prominent crossing fields north of the cottage access track. In the middle distance, a narrow shelter belt north of the B7076 Glasgow Road screens views of Redhouse Farm and Cottage and field boundary hedges link with WCML trackside vegetation to filter the visibility of train movements within a cutting, although overhead line equipment is visible. In the far distance, rising agricultural land north of WCML is visible with field boundary vegetation and small woodlands seen against the horizon. On a clear day, the upper elements of wind turbines at Ewe Hill windfarm are visible.
<b>Summer</b>	Vegetation in leaf appears more noticeable in the view and intervening field boundary hedgerows and small woodlands are more distinctive. Vegetation in leaf filters and screens views of the WCML and beyond of the rising agricultural land to the north.
<b>Night-time</b>	In this rural location between Gretna and Kirkpatrick-Fleming, lighting elements are limited. However, traffic headlights on the B7076 Glasgow Road and local lanes together with lighting at scattered farms, cottages and businesses are visible.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Residents will have near and middle-distance views of large-scale construction works including the construction of Annandale depot maintenance shed, accommodation building, depot sidings and B7076 Glasgow Road realignment. Construction works will be visible across the majority of the view, with some views partially filtered through intervening vegetation. Construction activity including Annandale depot main compound and large-scale earthworks will replace views of the agricultural landscape, woodland, WCML and B7076 Glasgow Road. Construction traffic using the B7076 Glasgow Road will introduce uncharacteristic vehicles into close views. Annandale depot main compound and temporary material stockpiles will be in the middle distance, with construction activity for the maintenance shed, accommodation building and depot sidings beyond. The emerging structures, cranes and taller construction machinery will be visible against the skyline. The undergrounding of a section of 132kV overhead power line spanning the WCML and the emerging southern sealing end pylon will also be visible to the east. The removal of field boundary vegetation in the middle distance will be a noticeable change in the composition of the view. Construction works will be visible across the full width of view resulting in a substantial alteration to the character of the view. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		Residents will have near-distance views of artificial lighting at Annandale depot main compound. This will be a new area of light source within the view within a largely unlit, rural landscape. The controls on light spill set out in the draft CoCP will limit the change these new light sources introduce to the wider view. At night, there will be a <b>high</b> magnitude of visual change.	<b>Major adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>		Residents will experience a substantial change to middle-distance views seen over intervening road and trackside hedgerows and agricultural land. Annandale depot, including the maintenance shed, accommodation building and depot sidings will be new large-scale elements that will partially replace views of the otherwise agricultural landscape and woodland. The Proposed Scheme will be visible across a large proportion of the view. The Proposed Scheme will be at a much greater scale than the existing WCML and will substantially change the predominantly rural character of the view. Middle and far-distance views to the north and west will be foreshortened by the presence of the train maintenance shed and accommodation building. Landscape earthworks will partially screen views of the lower sections of the accommodation building and maintenance shed, beyond which a wide extent of the depot sidings and the upper elements of overhead line equipment and train movements will be visible. Far-distance views of the rural landscape to the north will be visible beyond the Proposed Scheme. Newly planted mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. The magnitude of change will be <b>high</b> .	<b>Major adverse (significant)</b>
	<b>Night-time</b>		Residents will have middle-distance views of operational lighting at Annandale depot including lighting to the depot sidings area and pedestrian paths between work areas. This new area of light source will be uncharacteristic within this largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. At night, there will be a <b>medium</b> magnitude of change.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>		Maturing mitigation planting in association with landscape earthworks will partially filter and screen views of lower elements of the Proposed Scheme. The upper extents of Annandale depot including the train maintenance shed, accommodation building and overhead line equipment will remain visible in middle-distance views, partially filtered through intervening vegetation. Views will be in the context of WCML and the B7076 Glasgow Road road corridor. The magnitude of visual change will reduce to <b>medium</b> .	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>		Maturing mitigation planting will partially filter views of operational lighting at Annandale depot. This localised area of sky-glow will be largely filtered through intervening mitigation planting within a largely unlit, rural landscape. The magnitude of visual change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of the mitigation planting will further screen views of the Proposed Scheme. Although some upper elements of the train maintenance shed will remain visible, seen above intervening mitigation planting. The magnitude of change will reduce to <b>low</b> .	<b>Minor adverse (non-significant)</b>
	<b>Night-time</b>		Maturing mitigation planting will further filter views of operational lighting at Annandale depot. The magnitude of visual change will reduce to <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Viewpoint 804-02-008: view north-west from Nouthill Farm and Cottage

This viewpoint is representative of views experienced by residents at Nouthill Farm and Nouthill Cottage.

## Current baseline - winter view

Date taken: 18/03/2021. Time taken: 12:30.



## Winter verifiable photomontage - operation year 1



The viewpoint has been taken approximately 318m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-783. For full details of the visual assessment at viewpoint 804-02-008 refer to Volume 5: Appendix LV-001-OR003, Part 3.

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look in 2038 (opening year) to help inform the visual impact assessment. The design of the LV-08-OR003 Proposed Scheme may be subject to design development in response to consultation. Development of detail design after Hybrid Bill submission will not result in any significant adverse change in the environmental effects reported in the assessment. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	329800.067, 569430.748	<b>Direction of View:</b>	318.741°
<b>Elevation:</b>	39.661m AOD	<b>Height of Camera:</b>	1.598m

<p><b>Key Plan</b></p>	<p>Map Number LV-01-783</p>	<p><b>HS2</b> HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered in England. Registration number 06791686. Registered office: One Canada Square, London, E14 5AB.</p> <p>© Crown copyright and database rights 2020. Ordnance Survey Licence Number 100049190.</p>
	<p>Map Name Verifiable Photomontage Operation Year 1 (2038) - Winter Viewpoint 804-02-008</p>	
	<p>Community Area : OR003</p>	

Date: Jun 21



# Viewpoint 804-02-008: view north-west from Nouthill Farm and Cottage

This viewpoint is representative of views experienced by residents at Nouthill Farm and Nouthill Cottage.

## Current baseline - summer view

Date taken: 03/06/2021 Time taken: 11:35



## Summer verifiable photomontage - operation year 15



The viewpoint has been taken approximately 318m away from the Proposed Scheme. Viewpoint location shown on Map LV-01-784. For full details of the visual assessment at viewpoint 804-02-008 refer to Volume 5: Appendix LV-07-MA02, Part 3.

This verifiable photomontage (Type 4 as described in Visual Representation of Development Proposals LI TGN 06/19) provides an illustration of how the Proposed Scheme may look in 2053 (15 years after opening) to help inform the visual impact assessment. The design of the Proposed Scheme may be subject to design development in response to consultation. Development of detail design after hybrid Bill submission will not result in any significant adverse change in the environmental effects reported in the assessment. Where new planting is proposed, it has been shown as semi-mature trees which have put on 15 years of growth to illustrate how the Proposed Scheme will further integrate into the landscape over time.

Each individual image represents a 39.6° horizontal field of view with planar projection. At this scale the images do not lend themselves to direct comparison out in the field. Therefore, for viewing in the field, it is recommended that each image from the panoramic photomontage is printed individually, onto an A3 landscape sheet (image size 390mm x 260mm) to be viewed at a comfortable arms length. For further details on the selection of photomontage locations, verifiable methodology and presentation refer to the Landscape and visual assessment Technical Note - Approach to verifiable photomontages (SMR Volume 5: Appendix CT-001-00001).

<b>Camera:</b>	Sony a7RII, FFS, Zeiss Loxia 50mm f/2.0 lens		
<b>Approximate GPS co-ordinates ref.</b>	329800.067, 569430.748	<b>Direction of View:</b>	318.741°
<b>Elevation:</b>	39.661m AOD	<b>Height of Camera:</b>	1.598m

<p><b>Key Plan</b></p>	<p>Map Number LV-01-784</p>	<p><b>HS2</b> HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered in England. Registration number 06791686. Registered office: One Canada Square, London, E14 5AB.</p> <p>© Crown copyright and database rights 2020. Ordnance Survey Licence Number 100049190.</p>
	<p>Map Name Verifiable Photomontage Operation Year 15 (2053) - Summer Viewpoint 804-02-008</p>	
	<p>Community Area : OR003</p>	

Date: Jun 21



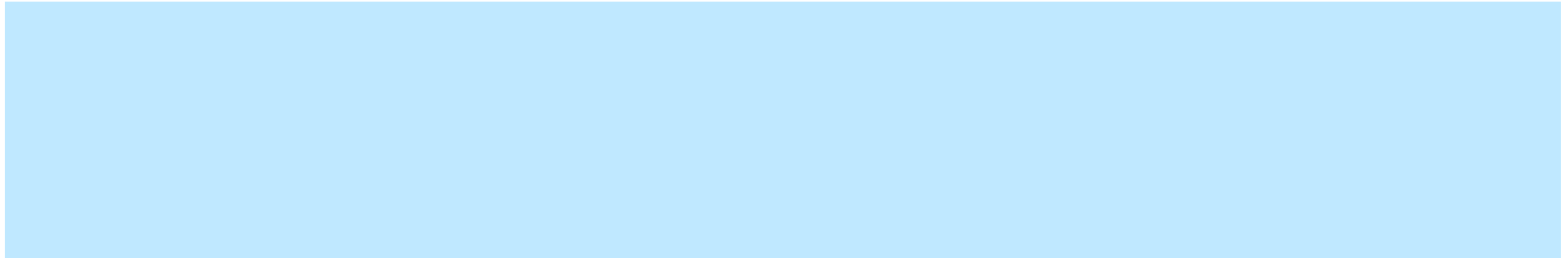
# Viewpoint 804-02-009: view south-east from Williamsfield Farm and Cottage

This viewpoint is representative of views experienced by residents of Williamsfield Farm and Cottage.

Viewpoint not visited; judgments based on a precautionary approach.

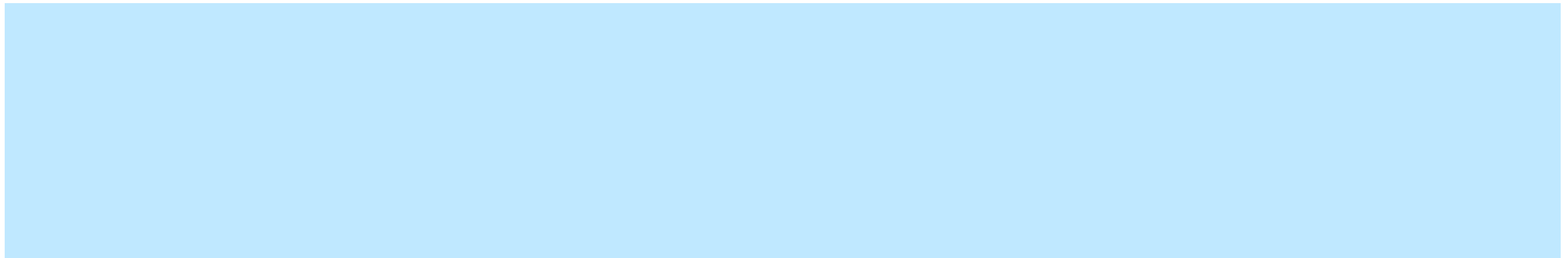
## Winter view (baseline)

It has not been possible to capture winter photography.

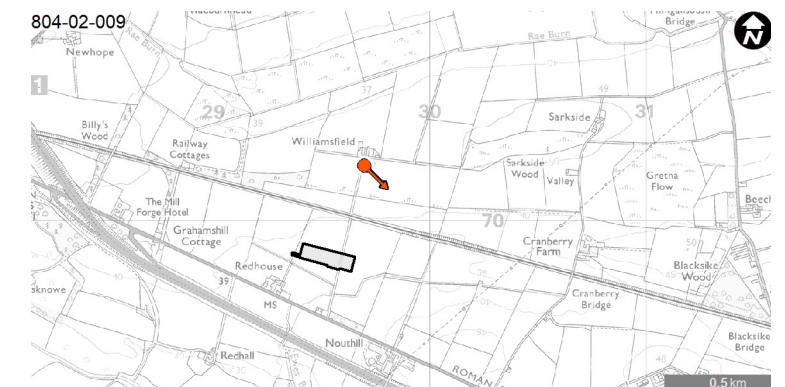


## Summer view (baseline)

It has not been possible to capture summer photography.



<b>Camera:</b>	Not applicable	
<b>Approximate GPS co-ordinates ref.</b>	329698, 570278	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>medium</b> value. The view is undesignated and there are some detracting elements in the view.	<b>Sensitivity of the receptor:</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>high</b> . Residents have a strong interest in their visual environment. They are therefore highly susceptible to visual change arising from the construction and operation of the Proposed Scheme.	High





# Viewpoint 804-02-009: view south-east from Williamsfield Farm and Cottage

## Visual baseline description

<b>Winter</b>	There are near-distance views of garden boundary vegetation, and adjoining agricultural land bounded by hedgerows. A farm access track leads south to an underbridge beneath WCML and terrain falls gently from the viewpoint to the south. In the middle distance, narrow woodland belts enclose the view to the west, whilst hedgerow and trackside vegetation north of WCML filter views beyond. South of WCML, some traffic movements on the B7076 Glasgow Road and beyond on an embanked section of the A74(M), may be visible, filtered through layers of field boundary vegetation. In the far distance, views extend over land beyond the A74(M) and the Kirtle Water valley. On clear days, views may extend to Solway Firth.
<b>Summer</b>	Vegetation in leaf appears more prominent in the view and gaps in field boundary hedgerows are less evident. Vegetation in leaf may largely screen views of traffic movements on the B7076 Glasgow Road and A74(M).
<b>Night-time</b>	In this rural area between Gretna and Kirkpatrick-Fleming, light sources are limited. However, traffic headlights on the B7076 Glasgow Road, A47(M) and local lanes, together with lighting at scattered farms, cottages and businesses may be visible.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Residents will have near, middle and far-distance views of large-scale construction works including the construction of Williamsfield Farm access diversion, the northern reception track and Annandale depot maintenance shed, accommodation building and depot sidings. The removal of intervening vegetation may open up views of construction activity and the emerging structures. However, some views may be partially filtered through intervening vegetation. Annandale depot main compound and large-scale earthworks will be introduced into views of the rural landscape, rail and road infrastructure. There will be a substantial change to the character of the view. Construction works may be visible across the majority of the view with taller construction machinery such as cranes and the emerging maintenance shed and accommodation building prominent against the skyline. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
<b>Construction night-time</b>		There may be views of artificial lighting at Annandale depot main compound in the middle distance. This new area of light source may create a localised area of sky glow seen above intervening construction works and the WCML. The controls on light spill set out in the draft CoCP will limit the level of change these new light sources introduce to the wider view. At night there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	No cumulative effect

			Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>		Residents will experience a substantial change to the composition of near and middle-distance views. Williamsfield Farm access diversion will be visible in the near distance to the north of WCML. The northern reception track, and Annandale depot including the maintenance shed, accommodation building, and depot sidings may be visible across the majority of the view to the south of WCML. Overhead line equipment and train movements may be seen in the context of the WCML. However, the Proposed Scheme will be at a much greater scale than existing rail infrastructure and may substantially alter the character of rural views. The maintenance shed and accommodation buildings may create the new skyline across a small proportion of the view. Mitigation planting will not be sufficiently established to assist in the filtering of views or the visual integration of the Proposed Scheme into views. There may be a <b>high</b> magnitude of change and a precautionary <b>major</b> adverse effect is assessed.	<b>Major adverse (significant)</b>
	<b>Night-time</b>		Residents may have views of operational lighting associated with Annandale depot, most notably the depot sidings. This new area of light source may create a localised area of sky glow, which may be visible across the majority of the view in the middle distance within a largely unlit, rural landscape. The lights will be designed to reduce the visual impact of the lighting installation. At night there may be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
<b>Year 15</b>	<b>Summer</b>		Maturing mitigation planting along the diverted Williamsfield Farm access track and in a woodland belt west of the access track, may partially filter views of vehicle movements along this track and of train movements along the WCML. Mitigation planting between the WCML, the northern reception track and depot sidings, may partially filter views of the Proposed Scheme south of the WCML. However, the taller elements of Annandale depot including the maintenance shed and accommodation building, may remain visible above the line of mitigation planting in the middle distance, and may continue to form the skyline across a proportion of the view. The magnitude of change may reduce to <b>medium</b> and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>		Views of operational lighting at Annandale depot may be partially filtered through intervening and maturing mitigation planting. However, some localised skyglow may remain visible above the line of planting. At night there may be a <b>low</b> magnitude of visual change and a precautionary <b>minor</b> adverse effect is assessed.	<b>Minor adverse (non-significant)</b>
<b>Year 30</b>	<b>Summer</b>		The greater maturity of the mitigation planting will further filter views of the Proposed Scheme. The upper extents of the maintenance shed and accommodation building may continue to form the skyline across a small proportion of the view. However, the growth of mitigation planting may limit the availability of former long-distance views towards Solway Firth. There may continue to be a <b>medium</b> magnitude of change and a precautionary <b>moderate</b> adverse effect is assessed.	<b>Moderate adverse (significant)</b>
	<b>Night-time</b>		Views of operational lighting at Annandale depot may be largely filtered through intervening mitigation planting. However, some localised skyglow may remain visible. At night there may be a <b>negligible</b> magnitude of visual change and a precautionary <b>negligible</b> adverse effect is assessed.	<b>Negligible (non-significant)</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	No cumulative effect



# Viewpoint 805-04-001: view south-east from the A74(M) overbridge at Newton

This viewpoint is representative of views experienced by road users along the A47(M).

## Winter view (baseline)

Date taken: 30/03/2021 (stitched panorama)

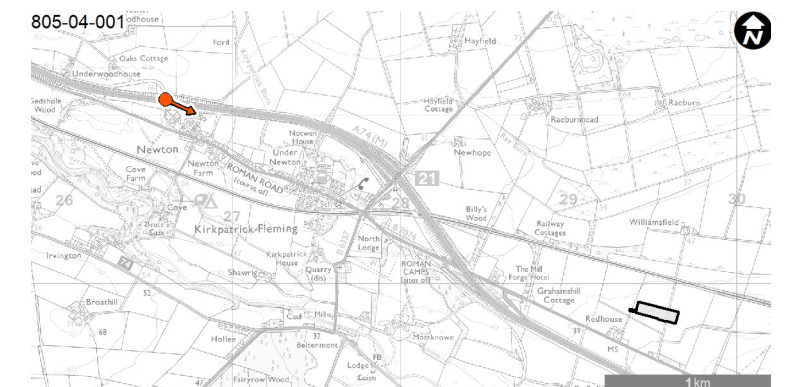


## Summer view (baseline)

Date taken: 19/05/2021 (stitched panorama)



<b>Camera:</b>	Nikon D3200 SLR 50mm (equivalent) focal length	
<b>Approximate GPS co-ordinates ref.</b>	326603, 571093	
<b>Value of the viewpoint:</b>	This viewpoint has a <b>low</b> value as defined as a part of the public highway.	<b>Sensitivity of the receptor:</b>  <b>Low</b>
<b>Susceptibility of the receptor to the change arising from the Proposed Scheme:</b>	The susceptibility of these receptors is <b>low</b> . Road users travelling along major roads are proportionally less focused on their visual environment. They are therefore less susceptible to visual change arising from the construction and operation of the Proposed Scheme.	





# Viewpoint 805-04-001: view south-east from the A74(M) overbridge at Newton

## Visual baseline description

<b>Winter</b>	There are near and middle-distance views along the motorway corridor from an overbridge spanning the A74(M). The bridge links properties and farms in Woodhouse, north of the A74(M) to the B7076 Glasgow Road Roman Road in Newton and Kirkpatrick-Fleming. Either side of the motorway, mature woodland planting on cutting slopes screen views beyond the road corridor. In the middle distance, there are views along the motorway, beyond roadside planting, to agricultural land bounded by hedgerows on largely level terrain. In the far distance, woodland on cutting and embankment slopes at junction 21 off-slip and overbridge, forms the background of the view, screening views beyond to the east.
<b>Summer</b>	Vegetation in leaf is more prominent in the view and intervening field boundary hedgerows and small woodlands are more noticeable, especially when seen against the skyline. Vegetation in leaf further screens the visibility of agricultural land north and south of the motorway.
<b>Night-time</b>	The night-time baseline is not described for this viewpoint as night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.

## Future baseline description

<b>Construction (2025)</b>	There are no committed developments which will change the baseline.
<b>Operation (2038)</b>	There are no committed developments which will change the baseline.

## Visual impact assessment

		Temporary effects during construction	Significance of effect
<b>Construction</b>		Mature roadside vegetation along the A74(M) road corridor and at junction 21 overbridge with the B6357, will largely filter views of construction works in association with the Proposed Scheme. Due to the narrow arc of view along the motorway corridor, there will not be any visibility of construction machinery, operations or emergent depot buildings. The magnitude of change will be <b>negligible</b> .	<b>Negligible (non-significant)</b>
<b>Construction night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Construction cumulative assessment</b>		There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>

			Permanent effects during operation	Significance of effect
<b>Year 1</b>	<b>Winter</b>		Mature roadside vegetation along the A74(M) corridor and at junction 21 overbridge with the B6357 will largely screen views of the Proposed Scheme in operation. Due to the narrow arc of view along the motorway corridor and constraints on wider views, the magnitude of change will be <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 15</b>	<b>Summer</b>		Views of the Proposed Scheme will continue to be screened by mature roadside vegetation. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Year 30</b>	<b>Summer</b>		Views of the Proposed Scheme will continue to be screened by intervening vegetation. The magnitude of change will remain <b>negligible</b> .	<b>Negligible (non-significant)</b>
	<b>Night-time</b>		Night-time effects have only been considered for occupiers of residential properties and residents staying in hotels and healthcare institutions.	<b>Not assessed</b>
<b>Operation cumulative assessment</b>			There are no developments which will result in cumulative effects.	<b>No cumulative effect</b>



# Non-significantly affected viewpoints: construction phase

Table 2: Schedule of non-significantly affected viewpoints, with justification

Viewpoint number	Construction	Construction night-time	Construction cumulative	Justification
803-05-001	Minor adverse	Minor adverse	No cumulative effect	Due to distance from the Proposed Scheme, the proportion of the view affected and the medium sensitivity of the receptor.
803-06-003	Minor adverse	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme, the proportion of the view affected and the low sensitivity of the receptor.
803-02-011	Minor adverse	Negligible	No cumulative effect	Due to distance from the Proposed Scheme and the proportion of the view affected.
803-02-012	Minor adverse	Minor adverse	No cumulative effect	Due to distance from the Proposed Scheme and the proportion of the view affected.
804-03-005	Minor adverse	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme and the proportion of the view affected.
804-02-006	Negligible	Negligible	No cumulative effect	Due to distance from the Proposed Scheme and the proportion of the view affected.
805-04-001	Negligible	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme, the proportion of the views affected and the low sensitivity of the receptor.



# Non-significantly affected viewpoints: operation phase

Table 3: Schedule of non-significantly affected viewpoints, with justification

Viewpoint number	Operation year 1 (2038)		Operation year 15 (2053)		Operation year 30 (2068)		Operation cumulative	Justification
	Winter	Night-time	Summer	Night-time	Summer	Night-time		
803-05-001	Minor adverse	Minor adverse	Negligible	Negligible	Negligible	Negligible	No cumulative effect	Due to distance from the Proposed Scheme, proportion of the view affected and the medium sensitivity of the receptor.
803-06-003	Minor adverse	Not assessed	Minor adverse	Not assessed	Negligible	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme, proportion of the view affected and the low sensitivity of the receptor.
803-02-011	Minor adverse	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect	Due to distance from the Proposed Scheme and proportion of the view affected.
803-02-012	Minor adverse	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect	Due to distance from the Proposed Scheme and proportion of the view affected.
804-03-005	Minor adverse	Not assessed	Negligible	Not assessed	Negligible	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme, medium-high sensitivity of the receptor and the proportion of the view affected.
804-02-006	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect	Due to distance from the Proposed Scheme and proportion of the view affected.
805-04-001	Negligible	Not assessed	Negligible	Not assessed	Negligible	Not assessed	No cumulative effect	Due to distance from the Proposed Scheme, proportion of the view affected and the low sensitivity of the receptor.



## Part 4: Assessment matrices

### 4.1 Landscape assessment matrix

4.1.1 Table 4 below summarises the assessment of significance for all of the LCA identified in the Off Route Works - Annandale depot area. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 4, Off-route effects report: Annandale depot area, Section 11.

**Table 4: Landscape assessment matrix summarising the assessment of significance for all of the LCA identified in the Off Route Works - Annandale depot area**

LCA	Construction	Construction cumulative	Operation year 1 (2038)	Operation year 15 (2053)	Operation year 30 (2068)	Operation cumulative
Coastal Flats: Dumfries and Galloway	Negligible	No cumulative effect	Negligible	Negligible	Negligible	No cumulative effect
River Sark Flats	Moderate adverse	No cumulative effect	Moderate adverse	Minor adverse	Minor adverse	No cumulative effect
Coastal Plateau: Dumfries and Galloway	Negligible	No cumulative effect	Negligible	Negligible	Negligible	No cumulative effect
Southern Flow Plateau	Moderate adverse	No cumulative effect	Moderate adverse	Moderate adverse	Minor adverse	No cumulative effect
Narrow Wooded Kirtle Water Valley	Minor adverse	No cumulative effect	Minor adverse	Negligible	Negligible	No cumulative effect



## 4.2 Visual assessment matrix

4.2.1 Table 5 below summarises the assessment of significance for all the representative viewpoints identified in the Off Route Works - Annandale depot area. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 4, Off-route effects report: Annandale depot area (OR003), Section 11. The night-time assessment (reported in Part 3 of this document, as appropriate) has only been undertaken for certain receptors with a view of proposed continuous lighting during either construction or operation. Further detail on this is provided within the Technical Note: Approach to night-time assessment, contained within the SMR. In most cases, in urban areas, additional lighting is not considered to give rise to significant effects due to the widespread presence of street lighting, lightspill from adjacent buildings and skyglow. Where there is no direct near-distance visibility of additional lighting, no further assessment has been undertaken.

**Table 5: Visual assessment matrix summarising the assessment of significance for all of the viewpoints identified in the Off Route Works - Annandale depot Community Area report**

Viewpoints		Construction			Operation year 1 (2038)		Operation year 15 (2053)		Operation year 30 (2068)		Operation cumulative
		Winter	Night-time	Cumulative	Winter	Night-time	Summer	Night-time	Summer	Night-time	
803-05-001	View north-west from Smiths Hotel at Gretna Green	Minor adverse	Minor adverse	No cumulative effect	Minor adverse	Minor adverse	Negligible	Negligible	Negligible	Negligible	No cumulative effect
803-03-002	View north-west from Quintinshill and the River Sark circular walk	Moderate adverse	Not assessed	No cumulative effect	Moderate adverse	Not assessed	Minor adverse	Not assessed	Negligible	Not assessed	No cumulative effect
803-06-003	View north-west from Cranberry depot	Minor adverse	Not assessed	No cumulative effect	Minor adverse	Not assessed	Minor adverse	Not assessed	Negligible	Not assessed	No cumulative effect
803-02-005	View north-west from Cranberry Cottage	Major adverse	Major adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Minor adverse	Minor adverse	Negligible	No cumulative effect
803-02-006	View south-west from Cranberry Farm	Major adverse	Moderate adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Minor adverse	Minor adverse	Negligible	No cumulative effect
803-03-010	View north-west from Bensmoor Wood to Douglas Steading Core Path	Moderate adverse	Not assessed	No cumulative effect	Moderate adverse	Not assessed	Minor adverse	Not assessed	Negligible	Not assessed	No cumulative effect
803-02-011	View south-west from south of Milligansbush	Minor adverse	Negligible	No cumulative effect	Minor adverse	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect
803-02-012	View north from Stonehouse	Minor adverse	Minor adverse	No cumulative effect	Minor adverse	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect
804-02-001	View north from Redhouse Farm and Cottage	Major adverse	Major adverse	No cumulative effect	Major adverse	Moderate adverse	Major adverse	Minor adverse	Moderate adverse	Negligible	No cumulative effect
804-02-002	View north-east from Grahamshill Cottage	Major adverse	Moderate adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Negligible	Minor adverse	Negligible	No cumulative effect
804-02-003	View north-east from The Mill Forge hotel and wedding venue	Major adverse	Moderate adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Negligible	Negligible	Negligible	No cumulative effect
804-02-004	View south-east from Grahamshill Railway Cottage	Major adverse	Moderate adverse	No cumulative effect	Major adverse	Moderate adverse	Minor adverse	Minor adverse	Negligible	Negligible	No cumulative effect
804-03-005	View east from National Cycle Network route 74	Minor adverse	Not assessed	No cumulative effect	Minor adverse	Not assessed	Negligible	Not assessed	Negligible	Not assessed	No cumulative effect
804-02-006	View south-east from the B6357 at the Rae Burn	Negligible	Negligible	No cumulative effect	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	No cumulative effect
804-02-008	View north-west from Nouthill Farm and Cottage	Major adverse	Major adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Minor adverse	Minor adverse	Negligible	No cumulative effect
804-02-009	View south-east from Williamsfield Farm and Cottage	Major adverse	Moderate adverse	No cumulative effect	Major adverse	Moderate adverse	Moderate adverse	Minor adverse	Moderate adverse	Negligible	No cumulative effect
805-04-001	View south-east from the A74(M) overbridge at Newton	Negligible	Not assessed	No cumulative effect	Negligible	Not assessed	Negligible	Not assessed	Negligible	Not assessed	No cumulative effect