A57 Link Roads
TR001034
6.6 Environmental Scoping Report and Opinion

(as submitted November 2017 and received December 2017)

APFP Regulation 5(2)(a)

Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

June 2021

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A57 Link Roads Scheme

Development Consent Order 202[x]

6.6 ENVIRONMENTAL SCOPING REPORT AND OPINION

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010034
Application Document Reference	TR010034/APP/6.6
Author:	A57 Link Roads Scheme Project Team, Highways England

Version	Date	Status of Version
Rev 1.0	June 2021	DCO Application

Trans-Pennine Upgrade Programme
Environmental Impact Assessment
Scoping Report

November 2017

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Infrastructure Planning

Trans-Pennine Upgrade Programme

ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

Regulation Number:	Regulation 10(3)
Author:	Mwale Mutale

Version	Date	Status of Version
Rev 1.0	22.10.17	Initial Draft
Rev 2.0	26.10.17	Updated Draft
Rev 3.0	07.11.17	Final

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CONTENTS

1 INTRODUCTION

1.1 Purpose of the Report

1.1.1 The purpose of this Environmental Impact Assessment (EIA) Scoping Report is to establish the scope of the Environmental Statement (ES) for the two Nationally Significant Infrastructure Project (NSIP) schemes identified within the Trans-Pennine Upgrade Programme:

- Mottram Moor Link Road Scheme
- A57(T) to A57 Link Road Scheme

1.1.2 The ES will be prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI No. 572) (hereafter referred to as the 'EIA Regulations'), and will accompany Highways England's application for development consent.

1.1.3 In accordance with paragraph 22 of the Highway and Railway (Nationally Significant Infrastructure Project) Order 2013, both schemes are considered to constitute a NSIP in their own right. This is because both schemes are 'construction of a highway wholly in England' (paragraph 22 (1) (a) and (2) (a)), 'the Secretary of State will be the highway authority for the highway' (paragraph 22 (2) (b)) and 'the area of development of each scheme (the land on which the highway is to be constructed and any adjoining land expected to be used in connection with its construction) is greater than 7.5ha' (paragraph 22 (2) (c) and (4) (c)).

1.1.4 However, for the purposes of this EIA Scoping Report (and the subsequent ES), the Mottram Moor Link Road and the A57(T) to A57 Link Road will be combined and assessed as one scheme (hereafter referred to as 'the Scheme'), in recognition that neither scheme can happen without the other, they are inextricably linked, and they have been combined for assessment purposes during the options development stage. Furthermore, it is considered that this approach accords with paragraph 9 of the Guidance on associated development applications for major infrastructure projects (Department for Communities and Local Government (DCLG), April 2013), which states *"a single application can cover more than one project requiring development consent under the Planning Act. Applicants are encouraged, as far as is possible, to make a single application where developments are clearly linked"*.

1.1.5 This EIA Scoping Report has been prepared in accordance with the Regulation 10(3) of the EIA Regulations, the Planning Inspectorate's Advice Note 7: Preliminary Environmental Information, Screening and Scoping (Version 5, March 2015) and Highways England's Environmental Scoping Report structure document (Version 2, 01/06/17). It should be noted that the latter requires the reporting of potential (pre-mitigation) impacts within each environmental topic chapter. However, following discussion with Highways England, it has been agreed that potential (pre-mitigation) impacts will not be reported in this EIA Scoping Report, to ensure accordance with the approach outlined in Volume 11 of Design Manual for Roads and Bridges (DMRB).

1.1.6 Table 1-1 outlines the information required to be included in a scoping opinion request in accordance with Regulation 10 (3) of the EIA Regulations, and Table 1-

2 outlines the information required to be included in a scoping opinion request in accordance with the Planning Inspectorate's Advice Note 7: Preliminary Environmental Information, Screening and Scoping (Version 5, March 2015). Both tables outline where each element of information can be found within this EIA Scoping Report.

Table 1-1: Information Required by Regulation 10(3) of the EIA Regulations

Information Required by Regulation 10(3) of the EIA Regulations	Location in this Scoping Report
A plan sufficient to identify the land.	Figures 1.2 and 1.3 at Appendix B
A description of the proposed development, including its location and technical capacity.	Section 2.4
An explanation of the likely significant effects of the development on the environment.	Chapter 5

Table 1-2: Information Requested by the Planning Inspectorate's Advice Note 7 (2015)

Information Required by Advice Note 7	Location in this Scoping Report
A plan showing: ▪ The proposed draft DCO site boundary (identified by a red line) including any associated development. ▪ Any permanent land take required for the proposed development. ▪ Any temporary land take required for construction, including construction compounds. ▪ Any existing infrastructure which would be retained or upgraded for use as part of the proposed development and any existing infrastructure which would be removed. ▪ Features including planning constraints and designated areas on and around the site, such as national parks or historic landscapes.	Figures 1.2, 1.3, 5.1-5.17 and 6.1 at Appendix B
An outline of the main alternatives considered and the reasons for selecting a preferred option.	Chapter 3
Results of desktop and baseline studies where available.	Chapter 5 contains a summary of the baseline information obtained for each topic area. Given the extent of baseline information gathered for previous environmental assessment work, it

Information Required by Advice Note 7	Location in this Scoping Report
	would be impractical to include all baseline information in this Scoping Report. However, figures contained at Appendix B depict the currently known key baseline constraints.
Referenced plans presented at an appropriate scale to convey clearly the information and all known aspects associated with the proposal.	Figures 1.2 and 1.3 at Appendix B
Guidance and best practice to be relied upon, and whether this has been agreed with the relevant bodies together with copies of correspondence to support these agreements	Chapter 5
Methods used or proposed to be used to predict impacts and the significance criteria framework used.	Chapter 5 and Appendix A
Any mitigation proposed and predicted residual impacts	Chapter 5
Where impacts from consequential or cumulative development have been identified, how applicants intend to assess these impacts in the ES	Chapter 6
An indication of any European designated nature conservation sites that are likely to be significantly affected by the proposed development and the nature of the likely significant impact of these sites.	Chapter 5
Key topics covered as part of the applicants' scoping exercise	Chapter 5
An outline of the structure of the proposed ES	Chapter 10
Where the applicant wishes to scope out matters, justification should be provided, preferably supported by evidence of agreement with the relevant consultation bodies.	Chapters 5 and 7

1.2 Overview of the Project

1.2.1 The Trans-Pennine Upgrade Programme is made up of measures announced in March 2015's Road Investment Strategy (RIS), published by the Department for Transport (DfT). These measures comprised the following schemes:

- Mottram Moor Link Road - a new dual-carriageway link road from the M67 terminal roundabout to a new junction at A57(T) Mottram Moor and a new single carriageway link;
- A57(T) to A57 Link Road – a new single carriageway link from the A57 at

Mottram Moor to a new junction on the A57 at Brookfield, bypassing the existing A628/A57 and A57 Woolley Lane/Hadfield road junctions;

- A628 Climbing Lanes – consideration of the provision of two overtaking lanes on the A628 near Woodhead Bridge;
- Safety and Technology Improvements – safety measures focused on addressing accident clusters and the provision of traffic light cameras, speed cameras and message signs to allow drivers to make informed decisions; and
- Upgrade of the A61 at Tankersley to dual carriageway (referred to as 'A61 Dualling').

1.2.2 However, since the RIS was published, the development of 'A628 Climbing Lanes' and 'A61 Dualling' schemes has been postponed until a later date to allow further consideration of the benefits associated with them.

1.2.3 Outside of the RIS, Highways England has previously considered a scheme to improve the junction of the A616 and A61 known as the 'Westwood Roundabout' due to the proximity of this scheme to the A61 Dualling. Although not specifically stated in the RIS, this scheme is now being progressed as part of the Trans-Pennine Upgrade Programme.

1.2.4 Further to public consultation on the schemes outlined above that constitute the Trans-Pennine Upgrade Programme, a 'Preferred Route Announcement' was made on 2 November 2017. The 'Preferred Route' comprises:

- Mottram Moor Link Road and A57(T) to A57 Link Road (Option A);
- Safety and Technology Improvements; and
- Westwood Roundabout.

1.2.5 As stated in Section 1.1, the Mottram Moor Link Road and the A57(T) to A57 Link Road are considered to be NSIPs in their own right, in accordance with paragraph 22 of the Highway and Railway (Nationally Significant Infrastructure Project) Order 2013. However, the other 'Preferred Route' schemes (Safety and Technology Improvements and Westwood Roundabout) are not considered to be NSIPs. Furthermore, following a review of the advice provided in Guidance on associated development applications for major infrastructure projects (DCLG, April 2013), neither are they considered to be associated development.

1.2.6 The reason for this is that Paragraph 3 of Guidance on associated development applications for major infrastructure projects (DCLG, April 2013) states that *"associated development is defined in the Planning Act as development which is associated with the principal development"*. It is considered that neither the Safety and Technology Improvements or Westwood Roundabout are associated with either the Mottram Moor Link Road or the A57(T) to A57 Link Road.

1.2.7 Furthermore, paragraph 5(i) of Guidance on associated development applications for major infrastructure projects (DCLG, April 2013) states *"the definition of associated development….requires a direct relationship between associated development and the principal development. Associated development should therefore either support the construction or operation of the principal development, or help address its impacts"*. Again, it is considered that neither the Safety and Technology Improvements or Westwood Roundabout have a direct relationship

with either the Mottram Moor Link Road or the A57(T) to A57 Link Road, and neither do they support the construction or operation of the Mottram Moor Link Road or the A57(T) to A57 Link Road, or help address impacts of the Mottram Moor Link Road or the A57(T) to A57 Link Road. Neither do the Safety and Technology Improvements or Westwood Roundabout fall under the examples of associated development (highways) provided in Annex A of Guidance on associated development applications for major infrastructure projects (DCLG, April 2013).

1.2.8 Therefore, the Safety and Technology Improvements and Westwood Roundabout schemes will not be referenced in the remainder of this EIA Scoping Report.

2 THE PROJECT

2.1 Need for the Project

2.1.1 The primary Trans-Pennine road route between the Manchester and Sheffield City regions is the trunk route consisting of the A57, A628, A616 and A61. It predominantly consists of all-purpose single carriageways, with steep gradients and sharp bends, and is particularly affected by inclement weather due to the altitude and exposure of the carriageway (approximately 442m at the Woodhead pass, its highest point).

2.1.2 The trunk route connects the M67 at Mottram in the east of the Manchester City Region with the M1 in the north west of the Sheffield City Region.

2.1.3 High priority challenges identified in the Stage 1 Feasibility Report[1] were:

- Journey times are increased by delays at junctions and the geometry and topography of routes;
- Long term traffic growth will bring some urban sections of routes to their capacity;
- Accidents reduce journey time reliability, with high accident rates on some routes and a number of accident clusters;
- Severe weather causes road closures which reduce journey time reliability;
- Maintenance on single carriageway sections reduces journey time reliability; and
- Asset condition, including the standard, age and damage to infrastructure, reduce journey time reliability through significant maintenance operations and risk from closures.
- There is a lack of technology to assist in the operation and management of the routes and provide information for travellers.

2.2 Project Objectives

2.2.1 The high-level objectives are:

- Connectivity – improving the connectivity between Manchester and Sheffield through reduction in journey times and improved journey-time reliability;
- Environmental – avoiding unacceptable impacts on the natural environment and landscape in the Peak District National Park, and optimising environmental opportunities;
- Societal – improving air quality and reducing noise impacts, and addressing the levels of severance on the Trans-Pennine routes in urban areas;
- Capacity – reducing delays and queues that occur during peak hours and

[1] Trans-Pennine Routes Feasibility Study Stage 1 Report February 2015

improving the performance of junctions on the routes;

- Resilience – improving the resilience of the routes through reductions in the number of incidents and reduction of their impacts; and
- Safety – reductions in the number of accidents and reductions in their impacts.

2.3 Project Location

2.3.1 Figure 1.1 at Appendix B presents the location of the Scheme.

2.4 Project Description

2.4.1 The Scheme is shown on Figure 1.2 at Appendix B and permanent and temporary land take is shown on Figure 1.3 at Appendix B. The Scheme includes the following components:

- A new offline bypass of 1.12 miles (1.8km) of dual carriageway road connecting the junction of the M67, A57(T) and A560 to the A57(T) Mottram Moor
- A new offline bypass of 0.81 mile (1.3km) of single carriageway connecting the A57(T) Mottram Moor to the A57 Woolley Bridge
- Creation of four new junctions (Roe Cross Road Junction on Roe Cross Road, Cricket Ground Junction on the new bypass, Mottram Moor Junction on Mottram Moor, and Brookfield Junction on Woolley Bridge road)
- Creation of four new structures (Old Hall Farm underpass, Mottram Tunnel, Carr House Farm underpass, and River Etherow Bridge).
- One main compound area located close to the M67/A57(T)/A560 Junction, with three other locations along the route for storage.

2.4.2 Associated works for temporary access, temporary lay-down, work areas and ancillary works will also be required.

Route Alignment

2.4.3 The Scheme commences with a new connection to the existing roundabout at the end of the M67 at its junction with the A57(T) and the A560, known as Terminal Roundabout.

2.4.4 From the Terminal Roundabout an all-purpose dual carriageway will run to the north east across existing farmland toward Mottram Moor.

2.4.5 A new junction in the form of a roundabout, Cricket Ground Junction, will be created to the west of Roe Cross Road. This junction will facilitate a connection with a new junction on Roe Cross Road. Roe Cross Road Junction will take the form of a signalised 'T' junction connecting the new bypass to Roe Cross Road.

2.4.6 From Cricket Ground Roundabout, the Scheme will enter the proposed Mottram Tunnel. Mottram Tunnel is proposed to be a dual bore tunnel constructed using the cut and cover method to carry the new road beneath the community of Mottram.

2.4.7 After exiting the Mottram Tunnel, the Scheme will be in cutting of approximately 12m deep known as Mottram Cutting, and continue towards a new junction,

Mottram Moor with the existing Mottram Moor. Mottram Moor Junction will take the form of a roundabout connecting Mottram Moor with the new Mottram Moor Link Road.

2.4.8 The separated sections of Mottram Moor would be connected with the realigned Mottram Moor in the form of an uncontrolled junction to retain access to the existing properties on Mottram Moor.

2.4.9 The route then continues as an all-purpose single carriageway, across existing farmland heading toward the River Etherow. A new structure would be constructed to carry the Scheme over the River Etherow.

2.4.10 The route would then terminate to a new signal controlled 'T' junction on Woolley Bridge Road, known as Brookfield Junction.

2.4.11 The final layout of all junctions will be dependent upon the results of traffic modelling.

Earthwork Design

2.4.12 The earthworks design is currently being finalised and is being optimised to minimise the depth of the proposed Mottram Tunnel cutting, whilst still providing environmental screening to the route.

2.4.13 Between the M67 Terminal Roundabout and Cricket Ground Junction and Mottram Moor Junction and Brookfield Junction, a series of mounds are proposed either side of the route to enhance the level of environmental screening.

Highway Structures

2.4.14 Table 2-1 presents a list of the proposed structures along the Scheme.

Table 2-1: Proposed Structures

Name of Structure	Detail of Proposed Works
Old Hall Lane Underpass	New underpass to maintain connectivity for the agricultural land either side of the Scheme and provide a crossing point for 2 No. public rights of way
Mottram Tunnel	New cut and cover tunnel to carry the Scheme beneath the community of Mottram
Carr House Farm Underpass	New underpass to provide connectivity for Carr House Farm onto Mottram Moor
River Etherow Bridge	New bridge to carry the Scheme over the River Etherow
Culverts	A number of culverts will be required to carry existing watercourse beneath the Scheme

2.4.15 Construction details of all proposed structures will be determined through the design phase.

Highway Drainage

2.4.16 The new highway drainage will be designed to meet the requirements of Highways England, as well as stakeholders including the Environment Agency, local authorities and United Utilities where possible. It is envisaged that along the length

of the Scheme, attenuation ponds will be used to reduce the flow into outfall to existing watercourses.

Highways Lighting

2.4.17 The requirement for lighting is currently being developed and the extent of any new lighting is not yet confirmed.

2.4.18 The lighting design would minimise light pollution which can cause sky glow, glare and light trespass. The design of the lighting would take into account potential landscape and ecological effects.

Non-Motorised User (NMU) Provision

2.4.19 Where the proposed route would affect existing public rights of way, network provision would be made to ensure routes remain open by providing suitable crossing points or diversions.

2.4.20 All junctions that interface with NMU's will be designed to take account of NMUs.

2.4.21 All NMU provision on the existing A57(T) and A57 will be maintained with possible improvements that will be agreed with the relevant local highway authorities.

2.4.22 No provisions are planned for Non-Motorised Users (NMU's) along with the Scheme. Instead, they will be encouraged to use facilities provided along the existing A57 corridor. NMU's will be prohibited from using the section of the Mottram Moor Link Road between Cricket Ground and Mottram Moor Junction due to the Mottram Tunnel.

Construction

2.4.23 Construction is anticipated to last for approximately 3 years and would commence in March 2020.

Terminal Roundabout

2.4.24 Construction of the new connection onto the existing terminal roundabout would be likely to require some lane closures on the roundabout carriageway to allow the new connection to be built.

Roe Cross Road Junction

2.4.25 Construction of the Roe Cross Road Junction would be likely to require a series of lane closures on the existing Roe Cross Road. It is anticipated that after discussion with the local highway authority, it will be necessary to ensure that a minimum of a single lane is required at this location.

Mottram Moor Junction

2.4.26 Construction of Mottram Moor Junction will require a series of lane closures. It is anticipated that once parts of the new carriageway are complete, traffic will be temporarily diverted onto them to facilitate construction of the remaining sections of the junction. Access will be maintained to all existing properties at all times.

Brookfield Junction

2.4.27 Construction of Brookfield Junction would be likely to require a series of lane closures on the existing Woolley Bridge Road. It is anticipated that after discussion with the local highway authority, it will be necessary to ensure that a minimum of a single lane is required at this location.

Mottram Tunnel

2.4.28 Mottram Tunnel is proposed to be constructed using the cut and cover method. It is currently planned that the tunnel will be constructed in a number of sections. Three existing roads cross the tunnel - Roe Cross Road, Old Road and Old Hall Lane. It is currently proposed that traffic flows will be maintained on Roe Cross Road and Old Road during tunnel construction. This would be by the use of a temporary road which would be constructed adjacent to the existing roads. Traffic would then be diverted onto the temporary road until the works were completed and the existing roads reinstated in their previous locations. Proposals are currently being considered for Old Hall Lane, but Old Hall Lane may be temporarily severed for the duration of the works in that area. Access would be provided from either side of the works, and NMU's along Old Hall Lane would be provided with a temporary diversion for the duration of the closure.

Mottram Moor Link Road and the A57(T) to A57 Link Road

2.4.29 The construction of the Mottram Moor Link Road and the A57(T) to A57 Link Road will require significant excavations and deposition of fill material to achieve the required vertical profile. Interfaces with existing public rights of way would need to be managed. Most of the Scheme can be constructed in a sterile site.

Demolition

2.4.30 A number of properties would need to be demolished in the vicinity of the Mottram Tunnel.

Services and Utility Diversions

2.4.31 A number of services will be required to be diverted where the new junctions intersect with the existing highway network.

2.4.32 A significant number of utilities will also be required to be diverted on Roe Cross Road, Old Road and Old Hall Lane due to the construction of Mottram Tunnel.

3 ASSESSMENT OF ALTERNATIVES

3.1 Assessment Methodology

3.1.1 A sifting exercise has been undertaken in order to identify the most optimal options in terms of development design, technology, location, size and scale. Section 3.2 details the sifting processes undertaken, but is summarised as follows:

Early Options Sifting Exercise

3.1.2 Initial options in relation to the Trans-Pennine Upgrade Programme at the time of sifting were in relation to the Mottram Moor Link Road and A57(T) to A57 Link Road. Assessment considerations for overall recommendation were based on value for money; journey time benefits; delay reductions and least environmental impacts.

First Sift (Strategic Sift)

3.1.3 Assessment was undertaken using the Early Assessment and Sifting Tool (EAST); an Additional Sift Tool and a high level economic assessment using Transport User Benefit Appraisal (TUBA).

Long List Sift Exercise

3.1.4 Assessment was undertaken using the EAST, alongside an Additional Sift Tool which considered the performance of each option against the project objectives.

Second Sift Exercise

3.1.5 Assessment undertaken using the Options Appraisal Framework.

3.2 Reasonable Alternatives Studied

3.2.1 A scheme to help alleviate traffic congestion along the A57/A628 trunk road through Mottram, Hollingworth (in the Tameside district of Greater Manchester) and Tintwistle (in the High Peak district of Derbyshire and partly within the Peak District National Park) was first introduced to the Roads Programme in 1989. Following appraisal of alternatives, two routes were presented at Public Consultation in 1992 and in October 1993, the Secretary of State announced a Preferred Route for a bypass scheme. However, the bypass was suspended from the Roads Programme in 1996.

3.2.2 In 'A New Deal for Trunk Roads in England' published in July 1998, the A57/A628 Mottram -Tintwistle Bypass and A628/A616 Route Restraint Measures was listed as a scheme for which preparation would continue to enable it to be taken forward without delay, subject to full appraisal and the views of the Regional Planning Bodies. The Scheme was approved in principle, subject to further appraisal, at the North West Regional Planning Conference in April 1999.

3.2.3 In January 2000, the Highways Agency conducted an assessment of the impacts of various strategies to solve the traffic problems within the three villages of Mottram, Hollingworth and Tintwistle and within the wider area. The results of these assessments were presented to the Regional Planning Bodies in November 2002 and, following their approval, a scheme was included in the Government's Targeted Programme of Improvements (TPI) in April 2003. The assessment concluded that there were no realistic alternatives to a bypass of the villages.

3.2.4 The preferred route promoted in 2003 was a bypass of approximately 5.7km in

length, which would bypass the existing A57/A628 route in the villages of Mottram, Hollingworth and Tintwistle, with a link road connecting to the A57 at Mottram Moor between Mottram and Hollingworth. An extension of this link road from the A57 Mottram Moor to the A57 Woolley Lane was being promoted jointly as the Glossop Spur by Tameside Metropolitan Borough Council and Derbyshire County Council. This followed the same alignment as the Brown Route considered in the Early Options Sifting Exercises (see paragraphs 3.2.10 to 3.2.15 below and Figure 3.3 at Appendix B).

3.2.5 Both the A57/A628 Mottram - Tintwistle Bypass and A628 Route Restraint Measures, and the Glossop Spur projects were subject to public inquiry in 2007. The public inquiry closed in 2009 and the A57/A628 Mottram - Tintwistle Bypass and A628 Route Restraint Measures project was removed from the Highways Agency programme.

Historic Scheme Options

3.2.6 During the intricate history of work in this area, numerous options have been considered and discarded. A review was undertaken during the early sifting exercises to capture these historic options and the reasons for rejection at the time.

3.2.7 The Mottram Moor Link Road and the A57(T) to A57 Link Road options presented for consideration within this EIA Scoping Report have been informed by learning from historic options studies. For example, options generally considered to be less preferable have not been reconsidered at this time, and design development has been informed by historic study information where applicable.

The Trans-Pennine Feasibility Study

3.2.8 In 2015, the DfT commissioned a series of feasibility studies to investigate solutions to some of the most significant and longstanding congestion hotspots in the country. A study was undertaken to identify the opportunities and understand the case for future investment on Trans-Pennine routes that will improve connectivity between Manchester and Sheffield, and that are deliverable, affordable and offer value for money. This study considered three western end variants of:

- Bypass of Mottram, Hollingworth and Tintwistle;
- Mottram Moor Link Road; and
- A57 Mottram One Way.

3.2.9 The study also recognised a need for a central package of improvements along the A57/A628/A61 to accompany each western end variant, which included the A57(T) to A57 Link road.

Early Options Sifting Exercises

Coverage of the Sifting Process

3.2.10 The initial options at the time of sifting were in relation to the Mottram Moor Link Road and A57(T) to A57 Link Road.

3.2.11 This decision to progress this western end variant (in conjunction with the central package of improvements) was based on this option having a good strategic fit and alignment with stakeholder aspirations, and is expected to deliver a positive effect on the economy at a lower cost than the full Mottram, Hollingworth and Tintwistle

bypass whilst providing good journey time and reliability benefits. The overall recommendation for this option being progressed was based on:

- High value for money case and it would improve connectivity between Manchester and Sheffield to some extent, but recognises that it does not provide significant additional capacity for these trips.
- Journey time benefits for both local trips from in and around the Mottram/Tintwistle/Glossop area and for existing Trans-Pennine trips using the A628 or A57 with an expected improvement in reliability for all users.
- Effective in reducing delays on the A628 and A57 and moves traffic from the village of Mottram which will bring benefits for local residents in the form of improved air quality, less noise, reduced accidents and reduced severance.
- Expected to bring slight adverse impacts to the landscape, noise, historic environment, biodiversity and the water environment.
- Anticipated that delivery of all elements of the package could be completed by early 2023.

3.2.12 A decision was made to extend the brief to include options to benefit Hollingworth and Tintwistle; and so the Brown Route, Red Route and Blue Route options were brought into the sifting process. These were considered with the intention of progressing a longer bypass option as part of a phased approach due to funding being unavailable within the current RIS.

3.2.13 An original long list of nine Mottram Moor Link Road options were presented to Highways England in September 2015. In accordance with the design brief, these included long bypass options (of Mottram, Hollingworth and Tintwistle) and short bypass options (of Mottram only) and included the option to include or exclude the A57(T) to A57 Link Road.

3.2.14 These nine options were:

- Options 0, 3 & 4 – options for A57(T) to A57 Link Road crossing the A57(T) close to Mottram (Figure 3.1 at Appendix B).
- Options 1, 2 & 5 – options for A57(T) to A57 Link Road crossing the A57(T) closer to the Gun Inn junction at Hollingworth (Figure 3.2 at Appendix B).
- Brown Route, Blue Route and Red Route – options for a Mottram, Hollingworth, and Tintwistle Bypass (Figure 3.3 at Appendix B). The Brown Route was the preferred route for the Mottram, Hollingworth and Tintwistle Bypass taken to Public Inquiry in 2007.

First Sift (Strategic Sift)

3.2.15 This sift was completed using EAST, alongside an Additional Sift Tool which considered the performance of each option against the Trans-Pennine Upgrade Programme objectives.

3.2.16 Highways England decided that a sifting exercise should be completed in an attempt to inform a strategic decision as to whether to pursue a long or short bypass. For this reason, the First Sift exercise was completed using one long and

one short bypass option (Option A and Brown Route), considering these both with and without the inclusion of the A57(T) to A57 Link Road.

3.2.17 The first sift included the following elements:

- Appraisal using an additional sift tool
- Appraisal using the EAST
- A high level economic assessment using TUBA

3.2.18 The following broad conclusions were drawn from the first sift.

- The Brown Route performs better economically than Option A route (both with and without the A57(T) to A57 Link Road)
- Options with the A57(T) to A57 Link Road perform better than the comparative option without the A57(T) to A57 Link Road.

3.2.19 A decision was made to remove options without the A57(T) to A57 Link Road, as these performed less well. However, a strategic decision between long and short bypass options could not be made at the time of sifting, and so it was decided to proceed to a Long List Sift.

Long List Sift Exercise

3.2.20 This sift was completed using the EAST, alongside an Additional Sift Tool which considered the performance of each option against the Trans-Pennine Upgrade Programme objectives.

3.2.21 The nine Mottram Moor Link Road options presented in September 2015 were all considered as part of the Long List Sift, all with the inclusion of the A57(T) to A57 Link Road.

3.2.22 The options discarded at this stage were:

- Options 1 and 2: The proximity of these two options to the Gun Inn junction affected the potential deliverability and feasibility in comparison to Option B which is of a similar alignment.
- Options 3 and 4: The highway alignment of these two options was less preferable in terms of Highways Standards in comparison to Option A.
- Blue Route: This route would pass directly between Hollingworth and Tintwistle, potentially bringing additional severance issues between the two villages. The route would also include the upgrade of the existing road within Tintwistle Conservation Area.
- Red Route: This route would require construction over the top of Arnfield Reservoir, which was considered to pose deliverability challenges.

3.2.23 The best performing options that were taken forward to the Second Sift Exercise were:

- Brown Route. It was the better performing of the Mottram, Hollingworth, & Tintwistle type options considered in the Long List Sift.
- Option 0. This option was appraised in the original first sift, and was considered the better performing of the Mottram Moor Link Road options considered which cross the A57(/T) closer to Mottram.

- Option B. This option was considered to be the better performing of the Mottram Moor Link Road options considered which cross the A57(T) closer to the Gun Inn at Hollingworth.

3.2.24 As a result of the historic options review exercise undertaken as noted in paragraphs 3.2.6 to 3.2.7, a potentially feasible option was rediscovered that had not been previously rejected. This option is referred to as 'DfT Low Cost Option 1' and is shown on Figure 3.4 at Appendix B. This option was also considered a viable alternative to the Brown Route and was therefore taken through to the Second Sift Exercise, alongside Options 0, 5 and Brown Route.

Second Sift Exercise

3.2.25 The second sift exercise was undertaken using the Options Appraisal Framework.

3.2.26 The options presented for Second Sift were:

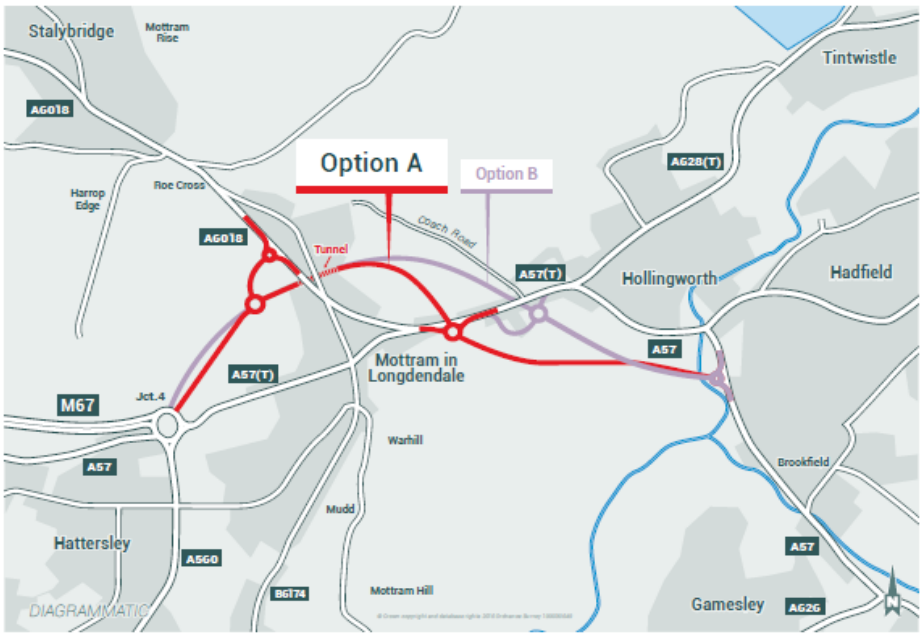
- Brown Route including A57(T) to A57 Link Road (long bypass)
- DfT Low Cost Option 1 including A57(T) to A57 Link Road (long bypass)
- Mottram Moor Link Road Option A including A57(T) to A57 Link Road (short bypass)
- Mottram Moor Link Road Option B including A57(T) to A57 Link Road (short bypass)

3.2.27 During a Value Management workshop, the benefits and dis-benefits of the four options were considered. The two long bypass options were expected to attract significantly more traffic to the area, plus bring about additional impacts in relation to the Peak District National Park, air quality and noise. The two long bypass options did provide the higher cost-benefit ratio in comparison to the short bypass options.

3.2.28 At the Value Management workshop, the risk relating to funding for a long bypass being unavailable within the current RIS was highlighted, and the decision was made to take the following two options through to the next stage, see Figure 3-1 below:

- Mottram Moor Link Road Option A (short bypass)
- Mottram Moor Link Road Option B (short bypass)

Figure 3-1 Mottram Moor Link Road Option A and Option B



3.3 Justification for Chosen Option

3.3.1 On 22 June 2017, a Value Management Workshop was held to ensure the options proposed for the Preferred Route Announcement met the high level strategic drivers defined in the Client Scheme Requirements, which are:

- Encouraging economic growth
- Making the network safer
- Keeping the network in good condition
- Supporting the smooth flow of traffic
- Delivering better environmental outcomes
- Helping cyclists, walkers and other vulnerable users of the network
- Improving user satisfaction
- Achieving real efficiency

3.3.2 Whilst considering the merits of Option A and Option B of the Mottram Moor Link Road/A57(T) to A57 Link Road, Option A and Option B both meet the transport objectives as defined in the Client Scheme Requirements, the workshop identified Option A as the preferable option due to:

- Less impact on properties
- Lower cost than Option B
- Option A was preferred by the majority of respondents to the non-statutory consultation undertaken in March and April 2017

3.3.3 It has therefore been recommended that Option A is progressed as the preferred route, and was subsequently included in the 'Preferred Route Announcement' made on 2 November 2017.

4 CONSULTATION

4.1 Consultation Undertaken to Date

4.1.1 A public non-statutory consultation took place between 13 March 2017 and 10 April 2017. Five options were consulted on, including Mottram Moor Link Road and the A57 (T) to A57 Link Road.

4.1.2 Publicity for the consultation included:

- 25,000 consultation brochures, delivered to the households in closest proximity to the Trans-Pennine Upgrade Programme, and placed at 19 deposit locations in the Trans-Pennine Upgrade Programme area.
- Consultation information on the Highways England website: including the consultation brochure and questionnaire and fly-through videos.

4.1.3 In addition, five public exhibition events were held on 18, 22, 24 and 25 March and on 1 April 2017, which were attended by over 800 members of the public.

4.1.4 As noted above, the 2017 consultation was a non-statutory consultation. This means that there was no statutory basis or requirement for the consultation, and consequently there were no rules or requirements under legislation that the consultation had to meet. Instead, in carrying out the consultation, Highways England was influenced by government guidance on consultation, best practice and lessons learned from other major consultations, and the principles for a lawful consultation that have been established by the courts.

4.2 Proposed Consultation

4.2.1 A Preliminary Environmental Information Report would be prepared in the first quarter of 2018. The Preliminary Environmental Information Report would subsequently be consulted upon as part of the statutory consultation required under Section 42 of the Planning Act 2008.

4.2.2 Under Section 42 of the Planning Act 2008, the applicant must consult:

- Statutory consultees (i.e. 'prescribed persons' listed in Schedule 1 to the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009;
- Local authorities prescribed in Section 43 of the Planning Act 2008; and
- The persons prescribed in Section 44 of the Planning Act 2008 including owners, lessees, tenants, and those with an interest in the land.

4.2.3 Following this, there would be ongoing non-statutory consultation with a range of organisations.

4.2.4 It is also intended that Statements of Common Ground would also be prepared in advance of submitting the application for development consent to confirm agreement with as many aspects of the ES as possible.

5 SCOPE OF THE ASSESSMENT

5.1 Introduction

EIA Methodology & Process

5.1.1 The proposed methodology to be used for each environmental topic is set out in Sections 5.2 to 5.11 below. The focus of the EIA methodology is to ensure a robust and proportionate approach.

5.1.2 To ensure compliance with EU Directive 2014/52/EU (the EIA Directive), which amends EU Directive 2011/92/EU, the following approach will be taken to environmental factors for which there is no consolidated methodology or practice within the current version of Volume 11 of DMRB.

Population and Health

5.1.3 An assessment of the significant effects on population will be considered as part of the 'People and Communities' assessment. An assessment of the significant effects on human health will be considered as part of the 'Air Quality', 'Noise and Vibration', 'Road Drainage and the Water Environment' and the 'People and Communities' assessments. However, it is considered that these assessments, conducted principally in isolation as is required by their methodologies, will not provide a sufficient analysis of the population and health effects of the Scheme. To enable such conclusions to be drawn, a qualitative assessment of information collated via the topic assessments listed above will be undertaken and presented within the 'Cumulative Effects' assessment.

5.1.4 No specific significance criteria will be applied to the assessment. Instead, significance criteria relevant to the topic assessments listed in paragraph 5.1.3 above will be applied.

Climate

5.1.5 In line with the Schedule 4 Part 5 of the EIA Regulations, a description of the likely significant effects of the Scheme on the environment, resulting from the vulnerability of the Scheme to climate change, will be provided and reported in a stand-alone chapter.

National Networks National Policy Statement (NN NPS)

5.1.6 The NN NPS sets out the policy which would be used by the Planning Inspectorate and the Secretary of State to make a decision on all major road and rail projects. Due regard would be afforded to this for the preparation of the ES. The NN NPS would also guide the design of the Scheme.

EIA Expertise

5.1.7 To ensure the completeness and quality of ESs, the EIA Regulations require projects to outline that they have been prepared by a competent expert(s). This information will be provided within the ES.

Risk of Major Accidents and/or Disasters

5.1.8 The ES will identify 'major' events that are relevant to and that could affect the Scheme, including both man-made and naturally occurring events. Where major events are identified, the ES would describe the potential for any change in the assessed significance of the Scheme on relevant environmental topics in

qualitative terms and report the conclusions of this assessment within the individual environmental topics. Mitigation measures would also be described.

Equalities Impact Assessment

5.1.9 In England and Wales, the Equality Act 2010 places a duty on Highways England to ensure that equality is considered as part of its service delivery. This means there are duties to ensure the Strategic Road Network (SRN) is accessible, and that economic and social opportunities are maximised for all users.

5.1.10 The Equality, Diversity and Inclusion sifting Tool, (EDIT) is a tool that has been used to help Highways England's project teams make an informed decision about the extent to which equality, diversity and inclusion (EDI) are relevant to the Scheme.

5.1.11 It is considered that EDI issues are likely to be a factor in the effective delivery of the Scheme. Therefore, an Equality Impact Assessment (EqIA) would be prepared in parallel to the ES.

5.1.12 Highways England currently uses EqIA to assess schemes considered likely to have a disproportionate impact on different sections of society. EqIA, when used in conjunction with EDIT, provides a good way of evidencing the decision-making processes to support compliance with the Equality Act 2010 and Public Sector Equality Duty.

Habitats Regulations Assessment

5.1.13 A Habitats Regulations Assessment Screening Report was prepared during PCF Stage 2 in September 2017, and was informed by discussions with Natural England. The purpose of the report was to determine likely significant effects on the following European designated sites as a result of the Trans-Pennine Upgrade Programme (as it was at PCF Stage 2).

- Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA); and
- South Pennine Moors Special Area of Conservation (SAC).

5.1.14 Only the A628 Climbing Lanes were considered relevant for further assessment. However, as stated in paragraph 1.2.2 above, the development of A628 Climbing Lanes has been postponed until a later date to allow further consideration of the benefits associated with them. Therefore, further consultation with Natural England is required to determine the need for the application for development consent to be supported by a Habitats Regulations Assessment.

5.2 Air Quality

Topic	Details
5.2.1 Study Area	**Construction** (1) The potential effects of construction dust will be assessed in accordance with DMRB HA 207/07. The study area is defined as the area within 200m of the construction site boundary. **Operation** (2) The study area will be defined by the changes in traffic flows on the local road network. The criteria outlined in paragraphs 3.12 to 3.16 of the DMRB HA 207/07 will be used to identify those roads likely to be affected, as follows: ▪ Road alignment will change by 5 metres or more; or ▪ Daily traffic flows will change by 1,000 Annual Average Daily Traffic (AADT) or more; or ▪ Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more; or ▪ Daily average speeds will change by 10 kilometre/hour or more; or ▪ Peak hour speed will change by 20 kilometre/hour or more.
5.2.2 Baseline Conditions	(1) The Scheme is located within the administrative boundaries of Tameside Metropolitan Borough Council and High Peak Borough Council. (2) As required by the Environment Act 1995, Tameside Metropolitan Borough Council and High Peak Borough Council have undertaken Review and Assessment of air quality within their boroughs. This process has indicated that annual mean concentrations of nitrogen dioxide (NO_2) are above the Air Quality Strategy (AQS) objective for Tameside Metropolitan Borough Council. As such, Tameside Metropolitan Borough Council has declared an Air Quality Management Area (AQMA) for NO_2. The Scheme study area is located within the Tameside AQMA. (3) Tameside Metropolitan Borough Council undertakes automatic monitoring within the study area, see Figure 5.1 at Appendix B. NO_2 concentrations at Mottram Moor automatic station were recorded at 47.2µg/m^3 in 2015, exceeding the AQS objective of 40µg/m^3. Diffusion tube monitoring is also undertaken within the study area at 3 locations. The 2015 monitoring data identified 2 sites of exceedance along the A628 and A57, with concentrations of 61.1µg/m^3 and 53.4µg/m^3 respectively. (4) High Peak Borough Council undertakes diffusion tube monitoring at 11 locations within the study area. Exceedances of the AQS objective were recorded at the Pegasus Crossing along the A628 (the average for 2015 was 65.5µg/m^3) and at one location along Woodhead Road with a 2015 concentration of 51.8µg/m^3. The remaining locations were below the AQS objective for 2015. Whilst High Peak Borough Council hasn't declared an AQMA, one is proposed around the area of the identified exceedances. (5) Highways England completed additional monitoring at 82 locations in and around the Mottram area in 2016. Exceedances of the AQS objective for annual mean NO_2 concentrations have been identified along the A57

Topic	Details
	through Mottram and Glossop and the A628 through Hollingworth and Tintwistle. (6) Sensitive receptors potentially sensitive to changes in air quality were identified within the PCF Stage 2 air quality assessment. The location of these sensitive receptors is shown on Figure 5.3 at Appendix B.
5.2.3 Design, Mitigation and Enhancement Measures	**Construction** (1) In relation to construction dust, industry best practice mitigation measures would ensure that construction dust does not result in a significant impact. These measures would be included in and managed through the Construction Environmental Management Plan (CEMP). Mitigation measures could include positioning dust generating activities as far away as possible from sensitive receptors, seeding or covering long term stockpiles, or damping down surfaces. A stakeholder communication plan and regular inspections would assist in monitoring the success of any mitigation measures employed. (2) Measures to mitigate the potential air pollution impact from construction vehicles could include the use of less polluting construction vehicles such as Heavy Goods Vehicles (HGVs) that are Euro VI equivalent. **Operation** (3) Should the Scheme result in a significant impact on local air quality (in accordance with Interim Advice Note (IAN) 174/13) or pose a risk to the UK's reported compliance dates with the EU Limit Values (assessed in accordance with IAN 175/13), a Scheme Air Quality Action Plan (SAQAP) would be prepared (in accordance with IAN 175/13). SAQAP measures could include reducing the increase in traffic in areas where sensitive receptors are significantly affected.
5.2.4 Residual Effects	**Construction** (1) The residual impacts of the construction activities on local air quality are not anticipated to be significant. **Operation** (2) The Scheme has the potential to affect local air quality during operation in the following ways: ▪ Air quality could be affected (positively or negatively) by changes in vehicle activity (flows, speeds and composition). ▪ Air quality could also be affected by any changes to the distance between sources of emissions and air quality sensitive receptors, due to changes to the existing road network to accommodate the Scheme. (3) The Scheme would affect traffic on roads that are within AQMAs and there is the potential for the annual mean NO_2 AQS objective to be exceeded at some roadside receptors. The assessment will determine whether the Scheme has a significant impact on air quality in accordance with IAN 174/13. In addition, the impact of the Scheme in relation to compliance with the EU Ambient Air Quality Directive will be assessed in accordance with IAN 175/13.

Topic	Details
5.2.5 Assessment Methodology	(1) Potential effects on local air quality resulting from both the construction and operation of the Scheme would be assessed in accordance with the following guidance (or latest update available at the time of the assessment): ▪ DMRB HA 207/07; ▪ IAN 170/12 v3; ▪ IAN 174/13; ▪ IAN 175/13; ▪ IAN 185/15; and ▪ Defra's Local Air Quality Management Technical Guidance (LAQM.TG(16)), where appropriate. (2) DMRB requires the following assessments to be undertaken, which will be based on the most likely forecast traffic flows: **Construction Assessment** (3) A qualitative assessment of impacts on air quality from construction will be undertaken in accordance with the DMRB HA 207/07. The assessment will take into account the nature of any proposed construction activities that will have the potential to generate dust and the location of sensitive receptors within 200m of the Scheme construction works that could be at risk of being affected. **Operational Assessment** ***Local Air Quality Assessment*** (4) Given that AQS objectives could be exceeded at sensitive receptors, a detailed assessment as required by DMRB will be undertaken. The Atmospheric Dispersion Modelling System (ADMS-Roads) software will be used to determine the effect of Scheme. (5) The key scenarios to be modelled are: ▪ The existing base situation, which will be used for model verification purposes (2015); ▪ Do-Minimum Scenario, which assumes that the Scheme will not be in operation in the opening year but accounts for committed developments in the future (expected to be 2023); and ▪ Do-Something Scenario, which assumes that the Scheme will be in operation in the opening year and also accounts for committed developments in the future (expected to be 2023). (6) The future year modelled scenarios will be adjusted following the advice in IAN 170/12 v3, which is used to adjust modelled concentrations that are solely based on the Defra air quality modelling tools. The latest version of this advice will be used for the future baseline projections presented in the air quality assessment, ensuring that the modelling is not overly optimistic. (7) The local air quality assessment compares current and predicted air quality concentrations against the AQS objectives. To determine whether

Topic	Details
	the Scheme will have a significant impact on air quality, the local assessment results are utilised in accordance with IAN 174/13. (8) The local air quality results are also used to assess whether the Scheme represents a risk to the UK's reported ability to achieve compliance with the EU Ambient Air Quality Directive. The assessment utilises information published by Defra (namely their Pollution Climate Mapping (PCM) modelled data) to determine whether compliance with the EU Limit Values will be affected by the Scheme in accordance with IAN 175/13. ***Regional Assessment*** (9) The regional assessment is undertaken to determine the change in emissions as a result of the Scheme. The regional emissions of NOx are also used in the WebTAG appraisal to determine the economic value of changes in air quality as a result of the Scheme for the purposes of the Scheme's business case. (10) The assessment of the contribution of the Scheme to regional air quality is based on the total annual emission of pollutants over the road network. The pollutants considered are: ▪ NOx; ▪ PM_{10}; and ▪ Carbon Dioxide (CO_2). (11) The latest version of the Defra Emission Factor Toolkit (EFT) will be used in the regional assessment calculations which uses the traffic characteristics (flows, average vehicle speeds and percentage HDVs for each period) and road length for each affected road in the study area. **WebTAG appraisal (plan level)** (12) DMRB HA 207/07 states that the assessment of air quality in relation to highways schemes should also report the results of local air quality WebTAG appraisal (plan level), as completed in line with the guidance set out by the Air Quality Sub Objective, TAG Unit A3. (13) The plan level methodology within the WebTAG guidance aims to quantify the change in exposure at properties in the opening year as a result of schemes. This is done by calculating the change in concentrations at receptors adjacent to all roads included in the Affected Road Network as determined for the local air quality assessment. The methodology follows several steps including: ▪ Identification of the Affected Road Network (roads that trigger DMRB criteria), which is the same as the DMRB local air quality affected road network; and ▪ Calculation of an overall assessment score for NO_2 and PM_{10}. (14) The results of the WebTAG assessment are reported in the ES and used in the Scheme's Business Case. **NN NPS** (15) Air quality aspects of the NN NPS are presented in paragraphs 5.3 to 5.15. The methodology outlined in DMRB HA 207/07 and associated IANs

Topic	Details
	ensures that the assessment complies with the requirements of the NN NPS. It also provides the decision maker with the information required to determine whether a scheme leads to a significant impact on air quality or risks compliance with the EU Ambient Air Quality Directive. (16) Paragraphs 5.12 and 5.13 of the NN NPS provide the advice to the Secretary of State who is responsible for the decision as to whether the Scheme is consented.
5.2.6 Assessment Assumptions and Limitations	(1) Any air quality model has inherent areas of uncertainty, including: ▪ The traffic data used in the air quality model; ▪ The suitability of emissions data; ▪ Simplifications in model algorithms and empirical relationships that are used to simulate complex physical and chemical processes in the atmosphere; ▪ The suitability of background concentrations; and ▪ The suitability of meteorological data. (2) Uncertainty associated with traffic data for the Scheme will be minimised by using a validated traffic model. (3) Uncertainties associated with emissions data will be minimised by using the most up to date speed-band emission factors available, and by applying IAN 170/12 v3 for long term trends. (4) Uncertainties associated with model algorithms and empirical relationships will be minimised by using algorithms and relationships that have been independently validated and judged as fit for purpose. Another uncertainty is with using historical meteorological data to estimate future concentrations. The key limiting assumption is that conditions in the future will be the same as in the past; however, in reality no two years are the same. In line with best practice, the base year meteorology (as used in the model verification and adjustment process) will be used in future year modelling to allow any adjustments to be applied in future cases.

5.3 Cultural Heritage

Topic	Details
5.3.1 Study Area	(1) In accordance with DMRB HA 208/07, the study area will encompass an area extending 1km from the Scheme for designated heritage assets and 500m for non-designated heritage assets associated with potential archaeological remains.
5.3.2 Baseline Conditions	**Existing information** (1) The study area contains one Scheduled Monument (Melandra Castle Roman Fort) which dates to the Roman period (AD 43 to 410); two Grade II* listed buildings ('Church of St Michael and All Angels' and 'Cross') and 28 Grade II listed buildings (see Figure 5.4 at Appendix B). (2) The entire Mottram in Longdendale Conservation Area and a portion of the Hadfield Conservation Area lie within the 1km study area. In

Topic	Details
	addition to the two Grade II* listed buildings identified above, Mottram in Longdendale Conservation Area contains a further 18 Grade II listed buildings that have not been individually identified. The portion of the Hadfield Conservation Area that lies within the 1km study area does not contain any listed buildings. (3) The Greater Manchester and Derbyshire Historic Environment Record list 98 non-designated heritage assets relating to known or potential archaeological remains within the 500m study area. Of these heritage assets, a number date to the prehistoric period and demonstrate human activity within the study area from the Bronze Age (2500 to 700 BC) onwards. (4) In addition to the Melandra Castle Roman Fort, evidence of human activity and settlement within the study area during the Roman period (AD 43 to 410) is represented by a number of non-designated heritage assets, ranging from earthwork enclosures to possible evidence for human burials. (5) A number of the non-designated assets date to the early medieval and medieval periods (AD 410 to 1066 and AD 1066 to 1540 respectively) and represent an increase in known settlement activity within the study area. By far the greatest number of non-designated heritage assets date to the post-medieval and modern periods (AD 1540 to 1901 and AD 1901 to present respectively), particularly from around AD 1750 onwards. These assets relate to agricultural, domestic and industrial activity. (6) There is potential for currently unknown sub-surface archaeological remains to be present within the study area. These archaeological remains may date from the prehistoric periods to the post-medieval period. (7) In terms of historic landscape character, the study area contains areas of 20th century settlement, 20th century industry, 20th century communications, 20th century agricultural improvement, 19th century field systems, post-medieval settlement, post-medieval communications, and late post-medieval agricultural improvement. Whilst the historic landscape has a reasonably high degree of time depth, the presence of later landscape types has reduced its coherence. **Additional information required to inform the ES** (8) A heritage walkover survey will be undertaken within the study area.
5.3.3 Design, Mitigation and Enhancement Measures	(1) Mitigation measures would be developed as part of the design process and informed by on-site evaluation. Depending on the nature of heritage assets, it may not be possible to avoid or mitigate all impacts. However, mitigation measures may include: ▪ Amendment of designs to reduce impacts, where reasonably practicable; ▪ Recording of archaeological features; ▪ Screening of construction or operation activities to reduce visual intrusion, such as tree planting or the installation of earthwork barriers.

Topic	Details
	(2) Potential mitigation measures may also include intrusive and non-intrusive investigations. These could include, but not be restricted to, geophysics surveys, trial trenching and archaeological evaluation.
5.3.4 Residual Effects	(1) Impacts to the setting of Mottram in Longdendale Conservation Area and some of the Grade II listed buildings during construction and operation are predicted to be significant. (2) The nature and extent of any remains that may be present within the study area is currently unknown. However, the effect of direct physical impacts to potential archaeological remains associated with a number of non-designated heritage assets during construction could be significant. (3) The effect on the historic landscape character of the study area during construction and operation is not predicted to be significant.
5.3.5 Assessment Methodology	(1) DMRB HA 208/07 states that a detailed assessment for archaeological remains and undesignated assets should comprise a desk-based assessment (DBA) and site-based evaluation. (2) The DBA would comprise: ▪ Obtaining updated data from the relevant Historic Environment Records; ▪ Inspection of aerial photographs held by the Historic England Archive, and LIDAR sources; ▪ Inspection of additional sources held by relevant Historic Environment Records within the respective local administration bodies, such as reports on previous investigations, and local and regional cultural heritage literature held in further information files; ▪ Inspection of sources held by the respective Centres for Archives, including historic Ordnance Survey and pre-Ordnance Survey mapping, and local and regional cultural heritage literature; ▪ A walkover survey to 'ground truth' heritage asset record data, identify previously unrecorded heritage assets and identify areas where recent impacts may have compromised the survival of known and currently unknown heritage assets; and ▪ Consultation with appropriate heritage advisors to identify the need for, nature, scope and scale of site-based evaluation required in support of the application for development consent, to provide further information regarding the presence, nature and condition of known and currently unknown heritage assets and to allow the significance of effects arising from impacts associated with the Scheme to be adequately predicted. (3) Significance criteria to be used are presented at Appendix A.

Topic	Details
5.3.6 Assessment Assumptions and Limitations	(1) The assessment would be compiled using heritage asset data obtained from third party sources and the prediction of effects would then be based on the accuracy of the data received. (2) Due to the nature of archaeological remains, their identification and assessment necessarily requires an element of assumption. In particular, the nature, extent, survival, and even the precise location, of buried archaeological remains are often uncertain, as the majority of such sites have never been subject to archaeological investigation to modern standards. Assessment of the value of such sites (as part of the assessment process) is often, therefore, heavily reliant on informed extrapolation from limited data, comparison with similar assets in similar contexts and, ultimately, on professional judgment. (3) For the purposes of the ES, it is proposed that the two Grade II* listed buildings be scoped out of the assessment, as the Scheme would have no physical impact on these assets and would also pose no direct impact to either the assets themselves or their settings. Thus, the Scheme would present no detriment to their significance. This lack of impact has been determined due to the assets distance from the Scheme and the existing screening between the Scheme and the assets provided by the built form which surrounds the assets. (4) It is further proposed that historic landscape character be scoped out of the assessment, due to its overall modern character and the fragmentary nature of those areas of time depth which do survive.

5.4 Biodiversity

Topic	Details
5.4.1 Study Area	(1) In accordance with DMRB Volume 11, Section 3, Part 4, the study area would extend to 2km from the Scheme for statutory and non-statutory designated sites and up to 30km for (SACs) designated for bats. (2) An Extended Phase 1 Habitat Survey was undertaken during the PCF Stage 2 assessment to record habitat types and evidence of protected/notable species on land situated within the Scheme footprint and all accessible land within a 1km route corridor surrounding the Scheme (i.e. 500m either side of the Scheme). Refer to Figure 5.6 at Appendix B.
5.4.2 Baseline Conditions	**Statutory Designated Sites** (1) Dark Peak Site of Special Scientific Interest (SSSI) is situated approximately 2.25km north east of the Scheme, and is included in the Peak District Moors (South Pennine Moors Phase 1) SPA and the South Pennine Moors SAC (Figure 5.5 at Appendix B). (2) Two additional statutory sites lie within 2km of the Scheme:

Topic	Details
	▪ Hurst Clough Local Nature Reserve (LNR), approximately 600m south of the Scheme and potentially connected to the Scheme via Hurstclough Brook ▪ Great Wood LNR, which is an extension of Hurst Clough, situated approximately 1.6km to the south of the Scheme. **Non-Statutory Designated Sites** (3) There are 14 non-statutory designated sites within 2km of the Scheme, these being: • Melandra Castle and Railway Local Wildlife Site (LWS); • Westwood Clough & Longlands Hall Grade B Site of Biological Importance (SBI); • Hurst Clough Grade B SBI; • Dinting Nature Reserve LWS; • Clough at Hattersley Grade B SBI; • Dinting Lodge Grassland LWS; • Dinting Vale Reservoir & Brook LWS; • Banks Wood LWS; • Robin Wood LWS; • Hollingworth Hall Wood Grade B SBI; • Clough at Mattley Grade A SBI; • Gamesley Sidings & Railway LWS; • Dinting Pond Junction LWS; and • Godley Hill Heathland Grade B SBI. **Habitats and Species** (4) The main habitats within the study area are shown at an appropriate scale on Figure 5.6 at Appendix B. (5) Targeted surveys for great created newts, reptiles, breeding birds, badgers, water voles, otters, bats (roost and activity survey) and Phase 2 habitat surveys for woodlands and hedgerows were undertaken between April and October 2017.
5.4.3 Design, Mitigation and Enhancement Measures	(1) Construction related impacts would be controlled through strict adherence to the CEMP. The CEMP would be developed using good practice techniques, but also a suite of general control measures, such as: ▪ All site works would be carried out in accordance with good environmental working practices e.g. CIRIA publications. ▪ Spill kits would be available on site and potential polluting materials would not be stored within 50m of watercourses or areas of significant biodiversity value.

Topic	Details
	▪ Methods to minimise and prevent contamination of watercourses during the construction would be implemented to prevent damage or pollution to aquatic habitats. ▪ Works that disturb drainage features would include necessary mitigation or reinstatement to ensure the features retain their correct working function. ▪ The Scheme, and specific construction tasks, would aim to retain of as many trees as possible. Where tree surgery to the crown or roots is necessary, this would be undertaken in accordance with British Standard (BS) 3998:2010 Tree Work Recommendations and appropriate Arboricultural Association advice notes. Retained trees would be adequately protected during construction, with particular attention when adjacent to ancient woodland, in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations, Arboricultural Association and Forestry Authority Advice Notes, and the Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees (National Joint Utilities Group, 2004). ▪ Timing construction activities to ensure avoidance of periods of particular sensitivity for range-protected and notable species found within the study area. ▪ All trenches and work excavations within sensitive areas would either be backfilled or covered overnight, fenced-off to prevent animals falling in, or battered with earth ramp(s) to allow animals a means of escape. ▪ Short term airborne pollution resulting from site vehicle emissions and dust would be controlled through good practice measures, such as wetting, if dictated by very dry weather conditions. ▪ Appropriate measures would be taken to avoid the spread of invasive and non-native plants. ▪ Pre-construction ecological checks/surveys would be carried out where required. ▪ Planting would aim to enhance the ecological value of the soft estate in the vicinity of the Scheme. Where possible, this would include reinstating and re-linking severed linear wildlife corridors with new planting. Consideration would be given to the inclusion of locally sourced native plant species within planting proposals and the application of sensitive management and monitoring regimes. (2) Other mitigation measures for consideration include minimising land-take/habitat loss and locating access tracks/haul roads and site compound/material storage areas outside of ecologically sensitive sites/habitats. Further, any valuable habitats lost as part of the Scheme (such as ponds, ditches, woodland and hedgerows) would be reinstated or adequately compensated to ensure a net increase in biodiversity as demonstrated by appropriate biodiversity offsetting calculations.
5.4.4 Residual Effects	(1) Adverse effects are anticipated during construction on Lowland Mixed Deciduous Woodland S41 Habitat, Rivers and Streams S41 Habitat,

Topic	Details
	ponds, fish and birds. Significant adverse effects are anticipated during operation on otters.
5.4.5 Assessment Methodology	(1) The assessment would be undertaken in accordance with DMRB Volume 11, Section 3, Part 4, incorporating the requirements of IAN 130/10. (2) The potential for significant effects as a result of the Scheme would be assessed using the Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition (CIEEM, 2016), IAN 130/10 and the key principles that underpin Highways England's Biodiversity Plan. Significance criteria to be used are presented at Appendix A. (3) The Stage 2 Extended Phase 1 Habitat Survey included a desk study and a site walkover to establish baseline information. The desk study comprised: ▪ A review of the Multi-agency geographic information centre (MAGIC) – http://magic.defra.gov.uk/ – to determine the location of international/national nature conservation designated sites, habitats registered on the Priority Habitat Inventory and registered European Protected Species Licence applications ▪ A review of Ordnance Survey mapping and online aerial imagery ▪ A review of the Peak District National Park website to obtain information on notable species within the Peak District, along with species listed within the Dark Peak National Character Area ▪ Obtaining records from Derbyshire Bat Group; Derbyshire Wildlife Trust; Greater Manchester Local Record Centre; Derbyshire Ornithological Society; and the National Biodiversity Network Atlas ▪ Reviewing previous relevant ecological reports (4) Habitats within the survey area were classified to Phase 1 Habitat Survey standard. The survey followed the 'Preliminary Ecological Appraisal' methodology as set out in the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013) which is a development of the method described in the Handbook for Phase 1 Habitat Survey – a technique for environmental audit (JNCC, 2010).
5.4.6 Assessment Assumptions and Limitations	(1) Ecological surveys are limited by a variety of factors which affect the presence of flora and fauna (e.g. climatic variation, season and species behaviour). A lack of evidence of a protected species during a survey does not necessarily mean that the species is absent; hence the surveys undertaken have also recorded and assessed the ability of habitats to support such species. The surveys have been planned in such a way as to gain coverage of the key times of year that a species may be active, as set out in standard guidance. They remain, however, "snapshots" and cannot be seen as representing a comprehensive account of all activity by that species. (2) The assessment will incorporate third party data along with the assumptions and limitations of this data.

Topic	Details
	(3) Assessment results will be based on the red line boundary received at the time of undertaking the biodiversity assessment. (4) The species surveys have been undertaken during specified and appropriate survey seasons, this will be detailed within the technical survey reports of the ES. (5) The following receptors will be scoped in to the assessment: ▪ South Pennine Moors SAC ▪ The Dark Peak SSSI ▪ Deciduous Woodland Section 41 of the Natural Environment and Rural Communities Act 2006 (S41) Habitat ▪ 'Important Hedgerow' and Hedgerow S41 Habitat ▪ Purple Moor-Grass and Rush Pasture S41 Habitat ▪ Lowland Dry Acid Grassland S41 Habitat ▪ Rivers and Streams S41 Habitat ▪ Ephemeral drainage ditches ▪ Ponds ▪ Fish ▪ Breeding birds ▪ Bats ▪ Badger ▪ Otter ▪ Water vole (6) Based on data obtained to date through desk studies and targeted surveys, it is considered likely that the following species/species groups are absent from the study area and are therefore scoped out of further assessment: ▪ White-clawed crayfish: Due to the lack of records, unsuitability of the habitats within the study area and the nationally declining nature of this species. ▪ Aquatic invertebrates: No notable aquatic invertebrates were recorded during targeted surveys within the study area in 2000, and due to the lack of records and unsuitability of the habitats within the study area; which are likely to be of value only to common, widespread species. ▪ Terrestrial invertebrates: No notable terrestrial invertebrates were recorded during targeted surveys within the study area in 2001, and suitable habitats for terrestrial invertebrates within the study area are of limited extent and likely to only support an invertebrate assemblage typical of the region. ▪ Reptiles: No reptiles were recorded during the 2017 targeted surveys. ▪ Dormice: Due to the lack of records, geographical location and the nationally declining nature of this species. (7) The additional features below may be present within the study area; however, due to their local status and low value, or distance from the

Topic	Details
	Scheme, significant adverse effects are considered very unlikely. These features are therefore scoped out of further assessment: ▪ Peak District Moors (South Pennine Moors Phase 1) SPA, Hurst Clough LNR and Great Wood LNR - Situated sufficiently far from the Scheme and separated by natural and anthropogenic barriers. ▪ Non-statutory designated sites: Due to the nature of the designations, and because all of these sites are situated sufficiently far from the Scheme, it is not considered that there would be any direct impact pathways. Furthermore, habitat degradation as a result of increased air pollution can also be scoped out due to distance of all sites from the Scheme, and, with the exception of Hurst Clough SBI, none of the other sites appear to be hydrologically connected to the Scheme. ▪ Other S41 and non-S41 Habitats: Other S41 habitats identified within the study area (such as traditional orchard) are situated sufficiently far from the Scheme, and it is not considered that there would be any direct impact pathways. No non-S41 habitats of note were recorded within the study area, and were considered typical of the region. ▪ Protected and Notable Plants (including Fungi): The study area supports a restricted diversity and distribution of protected and notable plants (including fungi), limited to widespread presence of Bluebell within woodlands (recorded in 2007). ▪ Invasive flora: The study area supports a restricted diversity and distribution of invasive flora. Responsibilities relating to invasive flora would be managed through standard mitigation procedures. ▪ Amphibians: No great crested newts were recorded during the 2017 surveys. Common amphibians were found to be locally common and widespread and all ponds affected by the Scheme would be replaced by ponds of better quality. ▪ Other Mammals (Hedgehog, Polecat and Brown Hare): Habitats within the study area are broadly suitable for these species, and the Scheme will therefore result in the loss of a nominal proportion of the available habitat. However, the implementation of a CEMP and mitigation/compensation requirements for other species (and habitats) would minimise impacts to these species.

5.5 Landscape and Townscape Effects

Topic	Details
5.5.1 Study Area	(1) The study area for the assessment of the landscape, townscape, and visual impacts would be defined by a combination of desk studies and site survey along with professional judgement and consideration of the extent of the Zone of Visual Influence (ZVI) derived from the site survey. A computer-generated Zone of Theoretical Visibility (ZTV) would be produced to refine the extent of the ZVI. The study area would be

Topic	Details
	identified with reference to DMRB Volume 11 Section 3, Part 5 and IAN 135/10.
5.5.2 Baseline Conditions	**Existing information** (1) The existing baseline information collated to date is summarised as follows: ▪ Elements of the Scheme fall within the setting of the Peak District National Parks (Figure 5.7 at Appendix B). ▪ The Scheme passes through National Character Area 54 (NCA 54): Manchester Pennine Fringe. ▪ Two Conservation Areas fall within the study area (Figure 5.7 at Appendix B). ▪ Two Grade II* listed buildings fall within the study area (Figure 5.7 at Appendix B). ▪ Five Ancient Woodland features have been identified within the study area; Westwood Clough, Millbrook Bridge Wood, unnamed (lies east of Widowscroft Farm straddling the northern boundary of the study area), Robin Wood and Dinting Vale Wood (Figure 5.7 at Appendix B). ▪ The study area is crossed by the Trans-Pennine National Trail, National Cycle Route 62, and by a number of regional long-distance paths, together with a network of local public rights of way (Figure 5.7 at Appendix B). ▪ There are three Landscape Character Areas (LCAs) within the study area, LCA Dark Peak Western Fringe, LCA Dark Peak and LCA Dark Peak Yorkshire Fringe, see Figure 5.8 at Appendix B. ▪ Seven representative viewpoints were selected at the PCF Stage 2 assessment, these are shown on Figure 5.9 at Appendix B. **Additional information required to inform the ES** (2) Tree Preservation Order information will be collected. Consultation with relevant local planning authorities would be undertaken to discuss and agree representative viewpoints to be assessed in the ES. (3) Landscape, townscape and visual surveys and baseline photography would be undertaken during winter and summer to verify desk based data and to identify: ▪ The extent and conditions of existing landscape features; ▪ Character and tranquillity; ▪ The Zone of Visual Influence; ▪ Visual receptors; and ▪ Representative viewpoints and photomontages.
5.5.3 Design, Mitigation and Enhancement Measures	(1) Mitigation to be considered includes: ▪ Developing a sensitively routed and well-designed Scheme in line with DMRB Volume 10 to ensure good fit with the scale and character of the landscape and townscape resources;

Topic	Details
	▪ Consideration of opportunities for introducing earthworks, including false cuttings to help screen and limit visibility of the Scheme within the local landscape; ▪ Consideration of an appropriate planting strategy, which responds to the local character of the landscape and helps provide a visual screening element of the Scheme in local views. It is envisaged the planting strategy due to the locality would utilise a range of native species, including woodland groups, and hedgerows, with ornamental planting limited to the urban areas; ▪ Consideration of environmental noise barriers as part of the noise mitigation strategy would also help provide visual screening. The introduction of environmental barriers could however provide a further intrusive feature within the landscape and their form and materials along with adjacent planting or the use of earthworks as an alternative should be carefully considered; and ▪ Developing a street lighting design strategy to minimise light pollution and a sign strategy to minimise visual clutter. (2) Landscape and visual mitigation would be discussed with Highways England, key stakeholders and the design team to further inform the potential for identifying and agreeing mitigation measures during both operation and construction.
5.5.4 Residual Effects	(1) It is considered that there is potential for significant adverse effects to occur on landscape character and visual amenity as a result of the Scheme.
5.5.5 Assessment Methodology	(1) For the ES, a detailed landscape and visual assessment would be prepared in accordance with DMRB Volume 11 Section 3, Part 5, IAN 135/10, and Guidelines for Landscape and Visual Impact Assessment, Third Edition. Significance criteria to be used are presented at Appendix A. (2) The baseline review undertaken to date has included: ▪ A review of National Character Areas; ▪ A review of Regional and Local Landscape Character Areas/ Landscape Strategies; ▪ A review of local planning policy; ▪ A review of Historic Parks and Gardens, listed buildings and Conservation Areas ▪ Details of public rights of way and Open Access land.
5.5.6 Assessment Assumptions and Limitations	(1) No assessment assumptions or limitations have been identified at this stage for the Landscape and Townscape Effects assessment. (2) No areas are proposed to be scoped out. A detailed landscape and visual assessment is proposed for the ES.

5.6 People and Communities

Topic	Details
5.6.1 Study Area	(1) The extent of land that the Scheme construction and associated works would directly change would define the study area. A 10m buffer around the Scheme boundary would be used to identify assets that could be lost as a result of the Scheme. A 500m study area around the Scheme would be used for the following: ▪ Community facilities ▪ Community and private assets ▪ Employment land ▪ Development land ▪ Views from the road ▪ Driver stress ▪ Changes to amenity ▪ Health ▪ Journey length, local travel patterns (2) In addition to the above, there are other, less tangible study areas that would be used as a basis for assessment, for example in relation to severance. DMRB Volume 11, Section 3 Part 8 and Part 9 do not specify a defined distance to include in a study area. Although the assessment of severance would be based on data gathered at the site of the Scheme, a broad area has been identified to provide an indication of the distance within which people may be affected, using a 500m boundary.
5.6.2 Baseline Conditions	**Existing information** ***Community Facilities*** (1) Community facilities within the study area (for example education and healthcare facilities) are shown on Figure 5.11 at Appendix B. ***Private Assets*** (2) The Scheme is likely to affect 31 buildings, all assumed to be residential. There are no commercial or industrial assets located in close proximity to the Scheme. ***Access and Recreation*** (3) The following public rights of way are either severed by or pass in close proximity to the Scheme: ▪ One local public right of way runs from the A57 Hyde Road near the M67 Terminal Roundabout and travels in a north-easterly direction towards Old Mill Farm on the west of Mottram in Longdendale. This is also traversed by 2 other local public rights of way. These public rights of way are likely to be severed by the Scheme. ▪ Approximately 150m to the north of the Scheme, a Coach Road (path) runs in a north west south east direction from Mottram Old Hall towards the A57 Mottram Moor.

Topic	Details
	▪ Towards the south of the Scheme, there is a footpath which runs in a north east, south-west direction from the A57 Mottram Moor and meets with Market Street in Mottram in Longdendale approximately 290m to the south. This footpath provides a link between the A57 Mottram Moor and the south of Mottram in Longdendale. ▪ Approximately 380m to the south of the A57 Mottram Moor, a footpath runs in an east-westerly direction. This footpath provides a link between Hadfield in the east and Mottram in Longdendale in the west. ▪ The Pennine Bridleway (incorporating the Etherow Goyt Valley Way and Tameside Trail) crosses the A57(T) to A57 Link Road approximately 700m to the south of the A57 Mottram Moor to meet Woolley Lane on the east of Hadfield. This public right of way is likely to be severed by the Scheme. ***Development Land*** (4) Consultation with Tameside Metropolitan Borough Council has concluded that there is no development land allocated in the vicinity of the Scheme. ***Agricultural Land*** (5) The study area is generally lowland, in which the prevailing climate generally does not limit the agricultural use of the land. The Scheme falls within areas of agricultural land classified as Grade 4 (poor quality agricultural land, as it is land with severe limitations which significantly restrict the range of crops and/or level of yields). ***Employment*** (6) No strategic employment sites have been identified within the study area. There are no commercial enterprises which are affected by the Scheme. **Additional information required to inform the ES** (7) Traffic data will be obtained to inform the driver stress calculations.
5.6.3 Design, Mitigation and Enhancement Measures	**Construction** (1) Relevant construction phase mitigation measures would be outlined in the CEMP. These may include: ▪ Appropriate induction given to ensure contractors act considerately in relation to local residents, particularly for any works that may be programmed to take place at night. It is proposed that all main contractors would be required to sign up and adhere to the Considerate Constructors Scheme, which seeks to promote good practice on construction sites and reduce negative externalities to the surrounding environment. ▪ In order to minimise disruption to footways by severance, temporary diversions would be put in place together with new gates and signs. This would be carried out in full consultation with the local highways authority and other interested stakeholders. ▪ The Scheme would be developed to minimise temporary land-take, where possible. The right to compensation and methods and

Topic	Details
	procedures for assessing appropriate levels of such, would be identified in relation to the National Compensation Code. Where necessary, consultation with landowners, occupiers and agents would continue to manage and reduce the impact on day-today activities, as far as practicably possible. ▪ Pursuant to the CEMP, method statements and management plans would be prepared by the successful contractor(s), detailing their approach to construction. These would include appropriate controls of site activities, such as preventing surface water run-off during construction. **Operation** (2) Several footpaths would be permanently affected by the Scheme. Mitigation would be required in order to address this. These measures would be carried out in consultation with the local highways authority and other interested stakeholders.
5.6.4 Residual Effects	(1) Significant adverse effects are predicted at 2 high value receptors in relation to community facilities/land and private assets. Significant adverse effects are also predicted at 2 medium value receptors in relation agricultural land and access and recreation. However, significant beneficial effects are predicted at 5 high value receptors.
5.6.5 Assessment Methodology	(1) In accordance with IAN 125/15, the assessment will incorporate topics previously reported under the 'Community and Private Assets' and 'Travellers' headings. Therefore, the assessment will follow the approach set out in DMRB Volume 11 Section 3 Part 6, DMRB Volume 11 Section 3 Part 8 and DMRB Volume 11 Section 3 Part 9. (2) Significance criteria to be used are presented at Appendix A.
5.6.6 Assessment Assumptions and Limitations	(1) No assessment assumptions or limitations have been identified at this stage for the People and Communities assessment. (2) No strategic employment sites have been identified within the study area and no commercial enterprises which would be affected by the Scheme. It is therefore proposed to scope these out of the assessment.

5.7 Noise and Vibration

Topic	Details
5.7.1 Study Area	**Construction Noise Assessment** (1) In accordance with British Standard (BS) BS 5228-1:2009+A1:2014 and using professional judgement, sensitive receptors within a study area of up to 300m from the Scheme boundary would be considered. **Construction Vehicle Assessment** (2) Road traffic noise changes within 300m of any road/route identified as experiencing an increase in noise of greater than 1dB as a result of the Scheme during construction would be considered.

Topic	Details
	Operational Road Traffic Noise Assessment (3) The noise and vibration "calculation area" will be defined in accordance with DMRB HD 213/11. Outside of this area, consideration of noise changes along major traffic routes within the Trans Pennine Upgrade Programme Saturn Model Affected Road Network will be assessed using Basic Noise Level (BNL) predictions. **Operational Airborne Vibration Assessment** (4) Airborne vibration effects would be assessed in accordance with DMRB HD 213/11.
5.7.2 Baseline Conditions	**Existing information** (1) The dominant noise source in the area is road traffic noise. There are five Noise Important Areas of relevance to this assessment within the calculation area (Figures 5.12 at Appendix B). Across the calculation area there are also a number of other sensitive receptors including three schools and a number of community services. **Additional information required to inform the ES** (2) Baseline noise surveys will be undertaken at sensitive receptors which have the potential to be affected by the Scheme during either construction or operation. Monitoring locations would be representative of the land uses defined within Annex 1, paragraph A1.13 of DMRB HD 213/11 (where they occur within the study area). Locations and survey durations will be agreed with High Peak District Council and Tameside Metropolitan Borough Council prior to monitoring taking place.
5.7.3 Design, Mitigation and Enhancement Measures	**Construction** (1) Specific mitigation measures would be informed by the findings of the assessment. However, in accordance with the requirements of the NN NPS, measures to minimise noise and vibration during construction would include adopting Best Practicable Means (BPM) (as outlined in Section 72 of the Control of Pollution Act 1974) and the recommendations of good practice presented in BS 5228-1:2009+A1:2014. **Operation** (2) The following measures would be considered: ▪ Horizontal alignment – By moving a route away from sensitive receptors. ▪ Vertical alignment – Keeping a route low within the natural topography to exploit any natural screening and enhancing this by the use of cuttings and, in exceptional circumstances, sub-surface and surface tunnels. ▪ Environmental barriers – These can be in the form of earth mounding or acoustic fencing of various types, or a combination of the 2. Conventional environmental barriers are not effective in reducing ground borne vibration and may be only partially effective against airborne vibration. They should, therefore, be ignored in assessing vibration nuisance unless tests show benefits from the design

Topic	Details
	proposed. The use of reflective and absorptive barriers could also be considered. ▪ Low-noise surfaces – The principal benefit of low-noise surfaces is the reduction in mid and higher frequencies of noise generated by tyres at speeds in excess of 75 km/hr. They are less effective in reducing noise at low speeds where engine noise particularly from heavy vehicles is more dominant. These surfaces also create a relatively smooth-running surface that helps to eliminate ground borne vibration. ▪ Speed and volume restrictions – The effect of the speed of vehicles on noise level is one of the most fundamental in the noise prediction process. Above 40 km/hr, noise level increases with the speed of the vehicle and a reduction in speed will normally cause a reduction in noise level. In a similar way, the volume and composition of traffic has a direct influence on the noise level.
5.7.4 Residual Effects	**Construction** (1) There is potential for adverse noise effects during the construction phase from heavy plant and from HGV movements. Adverse vibration effects could also occur from percussive/vibratory piling activities. **Operation** (2) The Scheme has the potential to affect existing ambient noise, during operation in the following ways: ▪ Direct affects from an increase in road traffic noise level at sensitive receptors within close proximity (600m) to the Scheme alignment; and ▪ Indirect affects (positive or negative) by changes in vehicle flow, speed and composition on the existing road network as a result of the Scheme; (3) Increases in road traffic noise level were the resultant road traffic noise level would be in excess of a Significant Observed Adverse Effect Level (SOAEL) could have the potential to cause a significant adverse effect.
5.7.5 Assessment Methodology	**Construction Noise and Vibration Assessment** (1) Construction noise and vibration would be assessed using the guidance set out in BS 5228-1:2009+A1:2014 (Part 1 of which provides guidance on predicting and measuring construction noise and assessing its impact on the environment) and BS 5228-2:2009+A1:2014 (Part 2 of which provides recommendations for basic methods of vibration control and methods of assessing its effects on the environment relating to construction where work activities/operations generate significant vibration levels). **Operational Road Traffic Noise Assessment** (2) In accordance with DMRB HD 213/11 and paragraph 5.191 of the NN NPS, calculations would be undertaken in accordance with the methodology contained within the Department of the Environment and the Welsh Office guidance document Calculation of Road Traffic Noise (CRTN). The prediction of road traffic noise effects would be undertaken

Topic	Details
	using a proprietary and appropriately validated 3-dimensional noise mapping software package such as IMMI or SoundPLAN 7. (3) It is anticipated that a DMRB HD 213/11 'Detailed' assessment would be required. Therefore, the following comparisons would be made for road traffic noise levels to consider the impacts of the Scheme in both the short and longer terms: ▪ Do-Minimum scenario in the baseline year against Do-Minimum scenario in the future assessment year (long term). ▪ Do-Minimum scenario in the baseline year against Do-Something scenario in the baseline year (short-term). ▪ Do-Minimum scenario in the baseline year against Do-Something scenario in the future assessment year (long term). (4) For night-time noise impacts, in accordance with DMRB HD 213/11, only comparisons in the long term would be considered for receptors predicted to exceed an Lnight, outside of 55dB(A) or greater. The calculation of permanent traffic noise nuisance impacts would be undertaken for the following comparisons: ▪ Do-Minimum scenario in the baseline year against Do-Minimum scenario in the future assessment year (long term). ▪ Do-Minimum scenario in the baseline year against Do-Something scenario in the future assessment year (long term). (5) Significance criteria to be used are presented at Appendix A.
5.7.6 Assessment Assumptions and Limitations	(1) The noise model will be based on traffic data provided by the project's traffic engineers. It is assumed this data is suitably representative. (2) DMRB HD 213/11 states *"significant ground-borne vibrations may be generated by irregularities in the road surface. Such vibrations are unlikely to be important when considering disturbance from new roads and an assessment would only be necessary in exceptional circumstances".* (3) Given the advice that ground borne vibration should only be assessed in exceptional circumstances, the fact that the proposal is for a new road Scheme and that there are no suitable methods of prediction, impacts from ground borne road traffic induced vibration will not be considered within the assessment.

5.8 Road Drainage and the Water Environment

Topic	Details
5.8.1 Study Area	(1) The study area would include all land within a 1km buffer around the Scheme (500m either side). Where necessary, this study area will be extended to consider the potential for effects on hydraulically linked designated sites. The study areas will be determined in accordance with DMRB HD 45/09.

Topic	Details
5.8.2 Baseline Conditions	**Existing information** (1) The study area is underlain by one type of bedrock aquifer, 'Secondary A', defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases providing a source of base flow to rivers (Figure 5.13 at Appendix B). The bedrock is overlain by a range of 'Secondary' aquifer superficial deposits. There are no groundwater Source Protection Zones located within the study area. (2) The majority of the study area is designated as Flood Zone 1 (with a less than 1 in 1000 (0.1%) annual chance of flooding from rivers and the sea) and has a Very Low risk of surface water flooding (less than 1 in 1000 (0.1%) annual risk). There are some localised areas where fluvial flood risk is higher, such as local to the proposed crossing of the River Etherow (Figure 5.15 at Appendix B). (3) The quality of the River Etherow and a number of its tributaries within the study area are monitored under the Water Framework Directive (WFD). All these waterbodies achieve a WFD chemical status of 'Good', however the majority are failing to meet their WFD target status for Ecological quality (Good Status) (Figure 5.14 at Appendix B). (4) There is one large surface water abstraction within the study area, drawn from Hollingworth Brook, a minor tributary of the River Etherow, which is fed by the Arnfield Reservoir. The abstraction is located approximately 500m to the north east of the Scheme. There are also a number of abstractions that support unlicensed (private) water supplies within the study area. **Additional information required to inform the ES** (5) Additional information required to inform the ES: ▪ Hydrological and hydraulic modelling of the River Etherow and its key tributaries. The finding of the modelling study will be reported in a Flood Risk Assessment; ▪ A quantitative appraisal of the effects of road drainage discharges on the quality of receiving waterbodies will be carried out using the Water Risk Assessment Tool ("HAWRAT"), the results of which will be used to inform the design of discharge treatment measures; ▪ Three-dimensional numerical modelling assessment of the Mottram area, the findings of which will be reported in a Hydrogeological Risk Assessment (HRA); ▪ A Water Features Survey to inform the HRA; and ▪ Groundwater level monitoring will be completed at selected sites to inform the HRA.
5.8.3 Design, Mitigation and Enhancement Measures	**Construction** (1) Construction Design, Mitigation and Enhancement Measures: ▪ To ensure the quality of the water environment does not deteriorate during construction, a CEMP would document all construction phase mitigation measures, including those for pollution prevention, inclusive of an emergency

Topic	Details
	preparedness and response plan. Such measures are documents in CIRIA publications including Control of water pollution from construction sites: guidance for consultants and contractors (C532), Control of water pollution from linear construction projects. Technical guidance (C648), Control of water pollution from linear construction projects. Site guide (C649) and Site handbook for construction of SuDS (C698). ▪ Construction site drainage would be managed using suitable Sustainable Drainage Systems (SuDS), both to attenuate runoff rates and provide treatment to improve runoff quality. Any discharges of site drainage will be made in accordance with the condition of any necessary consents/environmental permits. ▪ If any water abstraction/groundwater control is required as part of the construction process, the Environment Agency would be contacted and the appropriate licences would be obtained where required. Any abstraction practices would be in accordance with the requirements of these licences. ▪ Water use efficiency measures would also be adopted. ▪ A surface/groundwater monitoring plan would be implemented, particularly in relation to works such as dewatering, which could affect groundwater aquifers and any groundwater dependent surface waterbodies, in terms of both water quality and quantity. **Operation** (2) Operation Design, Mitigation and Enhancement Measures: ▪ A key potential impact during the operational phase is the deterioration of the WFD status of waterbodies that would receive highway runoff. There is also potential to impact the integrity of public/private water supplies. The design of the Scheme would suitably mitigate these risks by incorporating suitable means of accidental spillage management and routine runoff treatment. ▪ There would also be an increase in impermeable area cover with potential for changes to existing patterns, rates and volumes of surface water runoff and flood risk from this source. Through the provision of attenuation and appropriate operational maintenance of drainage infrastructure, this impact would be mitigated. To ensure future resilience, an allowance for the predicted effects of climate change over the development lifetime, guided by the most recent Environment Agency Climate Change Advice, published in February 2016, would also be included. ▪ Where works are required within the floodplain (Flood Zone 3) associated with the River Etherow, mitigation to compensate for any loss of floodplain storage or impediment to existing floodplain flow paths as a result of this work would be provided. (3) All mitigation and enhancement measures would be discussed with Highways England, the Environment Agency, the Lead Local Flood Authority and the design team to further inform the potential for identifying and agreeing mitigation and enhancement measures during both operation and construction.

Topic	Details
5.8.4 Residual Effects	(1) In the absence of suitable embedded design and mitigation measures, the Scheme has the potential to result in detrimental effects on surface and groundwater, given that the route alignment encroaches onto the floodplain of the River Etherow and its tributaries as well as some sections of the route requiring deep cuttings, especially in the north-central region of the route. With suitable measures in place, no residual effects that would be deemed significant are anticipated.
5.8.5 Assessment Methodology	(1) The assessment would be undertaken in accordance with DMRB HD 45/09. Significance criteria to be used are presented at Appendix A. (2) Sources of baseline information have included: ▪ Environment Agency 'What's in Your Backyard?' interactive maps; ▪ UK Government Long term flood risk assessment mapping; ▪ Environment Agency Catchment Data Explorer; ▪ Flood Estimation Handbook Web Service - Centre for Ecology and Hydrology; and ▪ Ordnance Survey mapping.
5.8.6 Assessment Assumptions and Limitations	(1) Quantitative assessments reported in the ES would be based upon the accuracy and assumptions of data received from third parties. These assumptions and limitations would be reported within the ES. (2) The assessment would cover the construction phase only. It is proposed to scope out operational effects, subject to ensuring no derogation of licensed or private water supplies and agreeing design and mitigation measures with the Environment Agency and Lead Local Flood Authority.

5.9 Geology and Soils

Topic	Details
5.9.1 Study Area	(1) The study area would comprise a 250m buffer either side of the Scheme. This is considered appropriate as this is the distance which potentially contaminative sites could cause an impact on the Scheme e.g. migration of gases from a landfill site.
5.9.2 Baseline Conditions	**Existing information** (1) Baseline information collated to date includes the following which are shown on Figure 5.16 at Appendix B: ▪ Geology/aquifer status ▪ Geological faults ▪ Mining ▪ Mineral sites ▪ Cavities ▪ Landfill sites ▪ Risk from Unexploded Ordnance (UXO)

Topic	Details
	▪ Groundwater abstraction points ▪ Source Protection Zones (SPZ) ▪ Hydrology/surface water (in relation to contaminated land) ▪ Soilscape data ▪ Geodiversity heritage sites, SSSIs and Regionally Important Geological and Geomorphological sites (RIGs). ▪ Fuel stations/trade directories ▪ Historical development/potentially contaminative land uses. (2) Key considerations include a Secondary A aquifer (superficial and solid geology), the River Etherow (surface water receptor) in relation to impact from contaminated land, landfill sites and other potentially contaminative uses within the study area, mining and a geological fault. **Additional information required to inform the ES** (3) A Ground Investigation would be undertaken to inform the Scheme design. The investigation would be designed to assess the presence or confirm absence of chemical hazards (including ground gases) in areas identified as potentially contaminated land and to determine the ground and groundwater conditions to aid the design of the route/Scheme. The ground conditions in the area of the fault indicated in the location of the proposed Mottram Tunnel would be investigated.
5.9.3 Design, Mitigation and Enhancement Measures	**Construction** (1) Construction Design, Mitigation and Enhancement Measures ▪ A ground investigation would be undertaken prior to construction. This would highlight if contamination is present in areas tested. During construction, contamination could be encountered in areas not investigated directly by ground excavation or indirectly through temporary groundwater control (e.g. if dewatering during construction of foundations or culverts). This would be particularly relevant for the construction of the Mottram Tunnel. Where contamination exists, its constraint, if any, on the normal design and construction of the Scheme would be assessed. If necessary, changes would be made to facilitate risk mitigation and/or the contaminative source would be remediated. ▪ The ground investigation should include gas monitoring to determine if any gas is migrating from landfill sites that could impact the Scheme. If required, a monitoring programme should be prepared to determine the gas regime of the area, subsequent impact and risk mitigation in the Scheme design. ▪ Prior to any construction compound areas being prepared, a baseline survey would be undertaken to determine the current land quality in these areas. This would highlight any contamination present, which is likely to be localised. If deemed necessary such areas would be remediated prior to, or as part of, the soil stripping/enabling works. ▪ During stripping excavation/construction works, a watching brief would be adopted with site workers remaining vigilant so any visual or

Topic	Details
	olfactory signs of contamination are noted and that any contaminated soil is kept separate from other materials. ▪ Within the construction site compounds, specific areas would be designated for the storage of chemicals, waste oils and fuel and refuelling activities. These areas would be bunded and placed on hardstanding to prevent downward migration of contaminants. ▪ An Emergency Response/Spill Response plan would be produced by the Main Works Contractor, as part of the CEMP. ▪ During the construction phase, localised contamination may occur within the compound areas through spillages/leakages of fuel and therefore a repeat survey would be undertaken once construction has finished and the compound dismantled to demonstrate the area has been returned to its previous state. ▪ The CEMP would include soil handling measures to ensure the protection, conservation and reinstatement of soil material. The CEMP would also include environmental design measures to prevent pollution incidents to receptors during the construction phase. ▪ The relevant pollution prevention guidelines would be followed where appropriate. ▪ A Site Waste Management Plan (SWMP) and a Materials Management Plan (MMP) would be prepared. ▪ The sustainable re-use of the soil resource affected by Scheme would be undertaken in line with the Construction Code of Practice for the Sustainable Use of Soil on Construction Sites. **Operation** (2) Operation Design, Mitigation and Enhancement Measures: ▪ A geological fault is indicated running north to south through the line of Mottram Tunnel. Additional monitoring may be required after construction. The design of the Mottram Tunnel would incorporate any particular requirements to ensure that the integrity of the tunnel is not compromised. ▪ There is a risk to shallow soils and the water environment (surface water and groundwater) from road spray and pollution incidents associated with the road usage (e.g. fuel/oil spillages) and traffic accidents. These risks would be mitigated by the design of an appropriate drainage system. In the future, should any incidence overwhelm the mitigation applied, soils which are significantly affected by pollution incidents would be assessed and if necessary removed to reduce the risk of contamination migrating across a wider area and or entering controlled waters. (3) Mitigation would be discussed with Highways England, key stakeholders and the design team to further inform the potential for identifying and agreeing mitigation measures for both during operation and construction.
5.9.4 Residual Effects	(1) A potential adverse effect on human health during construction (for local residents) has been identified, due to potential inhalation, ingestion

Topic	Details
	or dermal contact with potential contaminants. However, this is considered unlikely to be significant. (2) The exposure of geology during the construction of the Mottram Tunnel could create a beneficial learning resource during the operation of the Scheme.
5.9.5 Assessment Methodology	(1) The assessment would be undertaken in accordance with DMRB Volume 11 Section 3 Part 11 and would comprise impact on/loss of geological resources and impact of existing land contamination (if any) on sensitive receptors. (2) Significance criteria to be used are presented at Appendix A. (3) With respect to existing land contamination, a source, pathway receptor approach would be applied to examine how the Scheme would influence baseline conditions. The general approach outlined within Environment Agency Model Procedures for the Management of Land Contamination (CLR11) and CIRIA C552 would be adopted for assessing risks that may be created or increased as a result of the Scheme.
5.9.6 Assessment Assumptions and Limitations	(1) Quantitative assessments reported in the ES would be based upon the accuracy and assumptions of data received from third parties. These assumptions and limitations would be reported within the ES. (2) No elements are proposed to be scoped out.

5.10 Materials

Topic	Details
5.10.1 Study Area	(1) A specific study area for the assessment has not been identified, as a whole market approach will be used to procure materials required for the Scheme. Efforts will be made to source material resources locally whenever possible. (2) Some material resources will originate onsite, such as excavated soil (that is reused onsite). Other material resources used within construction will be sourced off-site and their environmental impact will also be taken into account. (3) In respect of the assessment in relation to waste, the study area would encompass the local planning authority's area in which the Scheme is located (and expected to have an effect). As the Scheme is located on the border of Derbyshire County Council and Greater Manchester County Council, capacity in those authorities will be considered.
5.10.2 Baseline Conditions	(1) For the purposes of this EIA Scoping Report, materials are defined as comprising: ▪ The use of material resources; and ▪ The generation and management of waste. **Existing information** (2) The capacity of waste infrastructure sites that could potentially receive Construction, Demolition and Excavation (CD&E) waste arisings from the

Topic	Details
	Scheme has been assessed using data gained from the Environment Agency Environmental Permitting Regulations database. (3) A non-exhaustive list of facilities able to accept the key waste streams within 30 miles of the Scheme has been collated, see Figure 5.17 at Appendix B. (4) The sensitivity of the UK supply of the key materials identified for the Scheme is considered to be low, as there is low scarcity of these materials. **Additional information required to inform the ES** (5) If it is confirmed that a significant amount of secondary aggregates is required to facilitate the construction of the Scheme, the Derbyshire County Council Minerals Local Plan and Greater Manchester Minerals Plan would be reviewed. This would be used to ascertain if consistent baseline data for secondary aggregates could be obtained to form the basis of the quantitative assessment.
5.10.3 Design, Mitigation and Enhancement Measures	**Materials** (1) Materials Design, Mitigation and Enhancement Measures: ▪ Cut and cover balancing would be optimised in order to maximise the reuse of excavated materials for infilling and landscaping on the Scheme. ▪ Throughout the design process, “designing out waste” principles would be considered in order to minimise the quantity of material resources required for the Scheme. ▪ The choice of whether to use primary or secondary aggregates (or a combination of both) would be made taking into consideration a combination of factors including material resources source, specification, production and transport. These factors would inform the use of secondary or recycled aggregates over primary aggregates having regard to the environmental impact. ▪ Most material resources would be transported by road or rail, using the existing highway network. The transport of materials onto site would be reviewed by the appointed Contractor on an ongoing basis to ensure efficiency in delivery and to avoid undue pressure on the road network. **Waste** (2) Waste Design, Mitigation and Enhancement Measures ▪ Some demolition materials would be retained/re-used onsite (e.g. sections of the drainage are going to be retained and utilised within the current design). ▪ Metals would be sent off site for recycling. ▪ Over-ordering would be avoided and materials would be stored securely to minimise damage. ▪ Construction waste would be segregated to facilitate recycling and reuse of materials/wastes.

Topic	Details
	Materials and Waste (3) Materials and Waste Design, Mitigation and Enhancement Measures: ▪ A CEMP would be prepared for the Scheme, which would require the appointed Contractor(s) to: - Promote opportunities for the potential reuse and recycling of all material resources and waste; - Sort and segregate waste into different waste streams; and - Manage material use to maximise the environmental and Scheme benefits from the use of surplus materials. ▪ The CEMP would include several subsidiary management plans, which form part of the suite of mitigation measures of particular relevance to materials and waste. ▪ A SWMP would be prepared for the Scheme. This would be updated and maintained during works and will be used to record how waste would be reduced, reused, recycled and disposed of. ▪ Compliance with waste legislation would be monitored through the completion of Duty of Care audits at receiving waste sites and review of waste transfer documentation. (4) Mitigation would be discussed with Highways England, key stakeholders and the design team to further inform the potential for identifying and agreeing mitigation measures during construction.
5.10.4 Residual Effects	(1) The capacity of the waste management infrastructure within the study area for all waste arising from the Scheme is deemed adequate. In addition, the majority of waste generated by the Scheme would be predominantly segregated and sent for beneficial reuse, recycling or for further segregation and sorting at a materials recovery facility. (2) Effects on material resources and waste from CD&E activities are not considered to be significant. However, cumulative material effects (the cumulative use of resources in conjunction with other schemes) may be significant (worst case) due to the depletion of finite natural resources e.g. aggregate for construction resulting from the Scheme and other developments and the waste capacity.
5.10.5 Assessment Methodology	(1) A detailed assessment will be prepared in accordance with DMRB HA 205/08 and IAN 153/11. (2) The ES will set out the methodology recognising the requirements of the NN NPS, including how significance of effects are to be determined.
5.10.6 Assessment Assumptions and Limitations	(1) There are no published or formalised significance criteria relating to the materials assessment. Therefore, the assessment would be undertaken using the professional judgement of material resources and waste specialists. (2) The amount of waste produced during the construction phase would be affected by the types and methods of construction. (3) Total waste management capacity for inert and contaminated soils will not be presented due to a lack of available/consistent baseline datasets. Baseline information will be based on the capacity of Derbyshire and

Topic	Details
	Great Manchester waste management infrastructure, as this is the most complete information available. (4) It will be assumed that all waste will be sent to a transfer station or landfill. However, it is anticipated that, where possible, clean excavated material arising from the Scheme will be utilised for beneficial reuse. (5) With regard to materials, no effects are anticipated during the operation phase. Therefore, operational effects will be scoped out of the materials assessment.

5.11 Climate

Topic	Details
5.11.1 Study Area	(1) The study area for Greenhouse Gas emissions will comprise the network within the traffic model, as this is the extent to which greenhouse gas emissions can be estimated. (2) The study area for climate change adaptation will comprise the north west region.
5.11.2 Baseline Conditions	**Existing information** (1) To date, no baseline information has been obtained. **Additional information required to inform the ES** (2) Traffic data, from the traffic model, would be required to inform the assessment of greenhouse gas emissions in accordance with the Greenhouse Gases Sub Objective, TAG Unit A3. (3) The following information will also be obtained: ▪ Information on recent weather patterns and extreme events; ▪ Published historical regional weather data; and ▪ UK Climate Projections e.g. UKCP09 Met Office data.
5.11.3 Design, Mitigation and Enhancement Measures	(1) Mitigation and adaptation measures may include: ▪ Ensure designs and alignment are climate change resilient e.g. resilient to flooding; and ▪ Specifying landscape and ecological measures which take account of future climate change (e.g. they should be more drought resilient).
5.11.4 Residual Effects	**Construction** (1) The construction of the Scheme is unlikely to have a significant adverse effect on the climate, with general construction practices being a localised and small contributing factor to greenhouse gas emissions. Mitigation measures would be incorporated into the CEMP. **Operation** (2) It is considered that operation of the Scheme would result in a change to greenhouse gas emissions.

Topic	Details
5.11.5 Assessment Methodology	(1) The assessment will cover the following two aspects: ▪ Greenhouse gas impact assessment – effects on climate change of greenhouse gas emissions arising from the Scheme, including how the Scheme will affect the ability of Government to meet its carbon reduction plan targets (in accordance with paragraph 5.17 of the NN NPS); ▪ Climate change resilience assessment – the resilience of the Scheme to climate change impacts, including how the Scheme will take account of the projected impacts of climate change (in accordance with paragraph 4.40 of the NN NPS and the EIA Regulations). (2) The assessment will be prepared in accordance with Greenhouse Gases Sub Objective, TAG Unit A3 and PAS 2080:2016 Carbon management in infrastructure. (3) In accordance with the NN NPS, significance of impacts will be assessed by comparing estimated greenhouse gas emissions arising from the Scheme with UK carbon budgets, and the associated reduction targets. (4) In accordance with the EIA Regulations, a description of the likely significant effects of the Scheme on the environment, resulting from the vulnerability of the project to climate change, will be provided.
5.11.6 Assessment Assumptions and Limitations	(1) The climate assessment is inherently uncertain in relation to climate change projections and the variation of information availability in relation to different climate hazards. (2) The Greenhouse Gas emissions assessment will be based on a number of assumptions for material resources, waste, energy, workers commute and water consumption. For example, construction site carbon emissions relating to fuel and energy use would consider carbon emissions associated with machinery and plant used. (3) No elements are proposed to be scoped out.

6 ASSESSMENT OF CUMULATIVE EFFECTS

6.1 Cumulative Assessment Methodology

6.1.1 Two types of cumulative effects would be considered:

- Intra-scheme effects – The combined action of a number of different environmental topic specific effects upon a single resource/receptor; and
- Inter-scheme effects – The combined action of a number of different projects, in combination with the project being assessed, on a single resource/receptor.

Intra-Scheme Cumulative Effects

6.1.2 Intra-scheme effects would be presented for receptors which could be affected by more than one ES topic. Where a receptor has been identified as only experiencing one effect or where only one topic has identified effects on that receptor, there is no potential for intra-scheme effects to occur.

6.1.3 Intra-scheme cumulative effects would therefore only be identified where more than one ES chapter has identified a residual effect on an individual or group of receptors.

6.1.4 An assessment of intra-Scheme effects on human health will be considered as part of the 'Air Quality', 'Noise and Vibration', 'Road Drainage and the Water Environment' and the 'People and Communities' assessments.

Inter-Scheme Cumulative Effects

6.1.5 Inter-scheme effects arising from the Scheme in combination with 'other development' schemes during the construction and operational phases would be assessed. The Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment sets out an assessment process involving 4 'stages'. These 4 'stages' are outlined below.

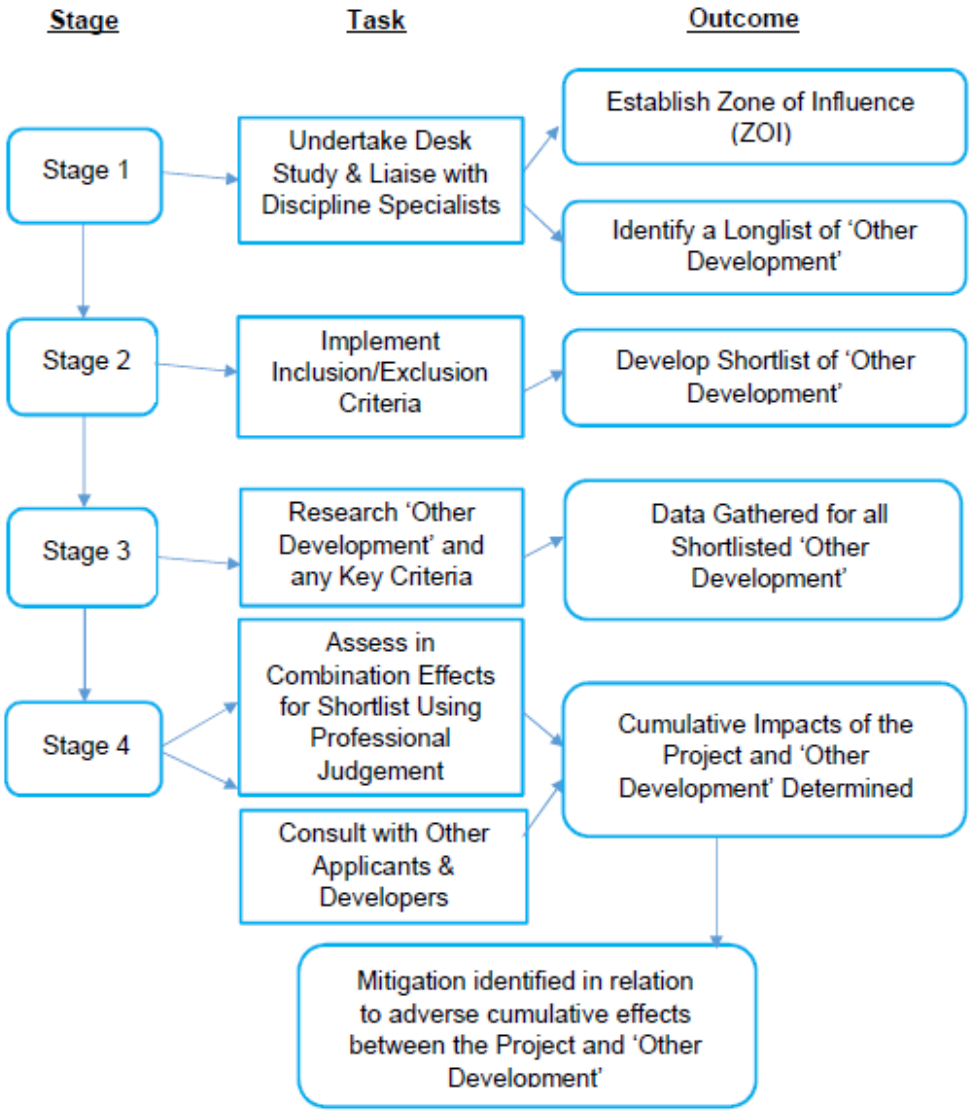
6.1.6 Stage 1 of the process involves establishing an appropriate 'Zone of Influence' (ZOI) to help identify 'other development' relevant to the assessment. Through liaison with technical specialists for each individual ES topic, ZOIs have been established using professional judgement (see Table 6-1). A 1km ZOI addresses localised cumulative effects from topic areas, while a larger ZOI addresses the potential for cumulative effects associated with Air Quality and Noise and Vibration.

6.1.7 The ES will set out the assessment methodology, recognising the requirements of the NN NPS and advice on development of threshold criteria in the Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment, giving particular regard to the size and spatial influence of developments on the Scheme.

Table 6-1: The Established ZOIs for Environmental Topics

Environmental Topic	Zone of Influence
Air Quality	Dependent on the traffic study area
Cultural Heritage	1km
Landscape	1km

Environmental Topic	Zone of Influence
Biodiversity	2km
Geology and Soils	1km
Noise and Vibration	Dependent on the traffic study area
People and Communities	500m
Road Drainage and the Water Environment	500m
Climate	Dependent on the traffic study area
Health	As per 'Air Quality', 'Noise and Vibration', 'Road Drainage and the Water Environment' and 'People and Communities'.



6.2 Assessment of Combined Effects

6.2.1 The in-combination assessment undertaken at PCF Stage 2 indicated a potential for cumulative impacts on residual effects for humans (residential) receptors for noise, air quality and visual landscape.

6.2.2 The study area for the in-combination effects is defined by the study areas of each of the individual environmental topic assessments, which are discussed in the relevant topic chapters.

6.2.3 The receptors considered in this assessment are sub-divided into 6 groups:

- Humans (residential receptors);
- Ecological features;
- Built heritage features;
- Water bodies;
- All travellers; and
- Community assets and businesses.

6.2.4 The potential effects acting upon these receptors are changes in noise, air quality, visual intrusion, water quality, traffic and land take.

6.2.5 The assessment will consider significant adverse residual effects, after mitigation has been taken into account. Assessing the significance of in-combination effects is necessarily a qualitative process, based on professional judgment. The significance of the in-combination effects will be determined using the criteria taken from DMRB HA 205/08, considering the following factors:

- Which receptors/resources are affected?
- How will the activity(-ies) affect the condition of the receptor/resource?
- What are the probabilities of such effects occurring?
- What ability does the receptor/resource have to absorb further effects before change becomes irreversible?

6.3 Assessment of Cumulative Effects

6.3.1 Following the establishment of the ZOIs for each topic, a desk study was undertaken to search for ‘other development’. This used the furthest ZOI as the maximum extent of the study area in which the ‘other development’ was searched for to create a ‘long list’. A review of this list would be undertaken for the ES.

6.3.2 A tiered approach was applied to consider the level of certainty of ‘other development’ being carried out that falls within the ZOI.

6.3.3 The tiers assigned were as follows:

- Tier 1 (a): Under construction;
- Tier 1 (b): permitted application(s), whether under the Planning Act 2008 or other regimes, but not yet implemented;
- Tier 1 (c): submitted application(s) whether under the Planning Act 2008 or other regimes but not yet determined;

- Tier 2: schemes on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted;
- Tier 3 (a): scheme on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted;
- Tier 3 (b): identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals would be limited; and
- Tier 3 (c): identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

6.3.4 It was then deemed appropriate to apply threshold criteria to exclude or include 'other development' from the 'long list' to develop a 'short list'.

6.3.5 This was undertaken to keep the assessment proportionate and focused so that 'other development' is only taken through to further assessment stages if it has potential to give rise to significant cumulative effects by overlaps in temporal scope; and due to the scale and nature of the 'other development'.

6.3.6 A process of shortlisting was then undertaken regarding planning applications, relevant development plans and other relevant sources, to identify which developments within the ZOIs fall within the 'other developments' that are relevant to the assessment of potential cumulative effects.

6.3.7 The resulting list is presented in Table 6-2 below. These 'other developments' are also mapped on Figure 6.1 at Appendix B. This list and map reflects the temporal scope and scale and nature of the 'other development', in line with Stage 2 of the Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment.

Table 6-2: Cumulative Developments

Figure Ref	Type of Development	Development Details	Development Status	Timescales	Approx. Distance from the Scheme
Nationally Significant Infrastructure Projects					
N/A	None	N/A	N/A	N/A	N/A
Submitted Applications (pending decision)					
1	Residential	HPK/2015/0692 Proposed Outline Planning Permission with some Matters Reserved for Residential Development for up to 113 Dwellings.	Pending Decision	Unknown	1.8km south east

Figure Ref	Type of Development	Development Details	Development Status	Timescales	Approx. Distance from the Scheme
Approved Applications (not under construction)					
2	Residential	HPK/2014/0067 Proposed laying out of access from Graphite Way & erection of up to 44no dwellings with Trans-Pennine trail improvements, community open spaces, garages, gardens & landscaping.	Approved 15/05/14	Unknown	430m south east
Under Construction					
3	Mixed Use	2015/1118 Formation of access roadway and associated infrastructure (Full). Outline planning application for a phased, mixed-use development comprising employment uses (B1bc/B8 with ancillary office B1a), hotel (C1) and/or car showroom/garage (sui generis/B2) and food & drink (A3, A4, A5) with associated infrastructure.	Approved 10/09/15	Due to be complete September 2016	500m north east

6.3.8 Following agreement from the Planning Inspectorate and statutory consultees, more detailed information would be gathered for the ES on the 'other developments'. Following this, the assessment would be undertaken (Stage 4) in accordance with the Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment. Throughout the assessment process, the 'other development' identified would be reviewed periodically to ensure that the most up to date information is used at key points during the evolution of the ES. This includes reviewing the status of 'other development' and any new applications which may be registered within the ZOI.

7 SUMMARY

7.1 Summary of Assessment Scope

7.1.1 In accordance with the EIA Regulations, the ES would be based on the scoping opinion received. However, Table 7-1 provides a summary of the environmental topics that are proposed to be scoped into the assessment, including the level of assessment.

Table 7-1: Environmental Topics Scoped in and the Level of Assessment

Environmental Topic Scoped In	Construction/Operation Phases to be assessed	Level of DMRB assessment Proposed
Air Quality	Construction & Operation	Detailed
Cultural Heritage	Construction & Operation	Detailed
Biodiversity	Construction & Operation	Detailed
Landscape and Townscape Effects	Construction & Operation	Detailed
People and Communities	Construction & Operation	Detailed
Noise and Vibration	Construction & Operation	Detailed
Road Drainage and the Water Environment	Construction only	Detailed
Geology and Soils	Construction & Operation	Detailed
Materials	Construction only	Detailed
Climate	Construction & Operation	Detailed

7.1.2 Table 7-2 provides a summary of the environmental topics proposed to be scoped out of the ES and a summary of the justification/evidence to support this; this will include agreement with relevant bodies.

Table 7-2: Environmental Topics Scoped out with Justification

Environmental Topic Scoped Out	Phases Scoped Out	Summary of Justification/Evidence to Support this
Road Drainage and the Water Environment	Operation	The residual effects for the operational phase are not expected to be significant. As a result, it is proposed to scope out the assessment of operational effects, subject to ensuring no derogation of licensed or private water supplies and agreeing design and mitigation measures with the Environment Agency and Lead Local Flood Authority.
Materials	Operation	No significant effects are anticipated during the operation phase.

7.1.3 Table 7-3 provides a summary of the environmental topic elements proposed to be scoped out of the ES and a summary of the justification/evidence to support this; this will include agreement with relevant bodies.

Table 7-3: Environmental Topic Elements Scoped out with Justification

Environmental Topic	Elements Scoped Out	Summary of Justification/Evidence to Support this
Cultural Heritage	Two Grade II* Listed Buildings	Given the distance from the Scheme and the existing screening between the Scheme and the assets provided by the built form which surrounds the assets, it is considered that the Scheme would have no physical impact on these assets and would also pose no direct impact to either the assets themselves or their settings.
	Historic landscape character	Due to its overall modern character and the fragmentary nature of those areas of time depth which do survive it is proposed that historic landscape character would be scoped out.
Biodiversity	Selected species	**White-clawed crayfish:** Due to the lack of records, unsuitability of the habitats within the study area and the nationally declining nature of this species. **Aquatic invertebrates:** No notable aquatic invertebrates were recorded during targeted surveys within the study area in 2000, and due to the lack of records and unsuitability of the habitats within the study area; which are likely to be of value only to common, widespread species. **Terrestrial invertebrates:** No notable terrestrial invertebrates were recorded during targeted surveys within the study area in 2001, and suitable habitats for terrestrial invertebrates within the study area are of limited extent and likely to only support an invertebrate assemblage typical of the region. **Reptiles:** No reptiles were recorded during the 2017 targeted surveys. **Dormice:** Due to the lack of records, geographical location and the nationally declining nature of this species.
	Peak District Moors (South Pennine Moors Phase 1)	Situated sufficiently far from the Scheme and separated by natural and anthropogenic barriers.

Environmental Topic	Elements Scoped Out	Summary of Justification/Evidence to Support this
	SPA, Hurst Clough LNR and Great Wood LNR	
	Non-statutory designated sites	Due to the nature of the designations, and because all of these sites are situated sufficiently far from the Scheme, it is not considered that there would be any direct impact pathways. Furthermore, habitat degradation as a result of increased air pollution can also be scoped out due to distance of all sites from the Scheme, and, with the exception of Hurst Clough SBI, none of the other sites appear to be hydrologically connected to the Scheme.
	Other S41 and non-S41 Habitats	Other S41 habitats identified within the study area (such as traditional orchard) are situated sufficiently far from the Scheme, and it is not considered that there would be any direct impact pathways. No non-S41 habitats of note were recorded within the study area, and were considered typical of the region.
	Protected and Notable Plants (including Fungi)	The study area supports a restricted diversity and distribution of protected and notable plants (including fungi), limited to widespread presence of Bluebell within woodlands (recorded in 2007)
	Invasive flora	The study area supports a restricted diversity and distribution of invasive flora. Responsibilities relating to invasive flora will be managed through standard mitigation procedures.
	Amphibians	No great crested newts were recorded during the 2017 surveys. Common amphibians were found to be locally common and widespread and all ponds affected by the Scheme will be replaced by ponds of better quality.
	Other mammals	(Hedgehog, Polecat and Brown Hare): Habitats within the study area are broadly suitable for these species, and the Scheme will therefore result in the loss of a nominal proportion of the available habitat. However, the implementation of a CEMP and mitigation/compensation requirements for

Environmental Topic	Elements Scoped Out	Summary of Justification/Evidence to Support this
		other species (and habitats) will minimise impacts to these species.
People and Communities	Development Land	Consultation with Tameside Metropolitan Borough Council has concluded that there is no development land allocated in the vicinity of the Scheme, therefore none would be affected by the Scheme.
	Employment Land	No strategic employment sites have been identified within the study area. There are no commercial enterprises which are affected by the Scheme therefore these sites are proposed to be scoped out.
Noise and Vibration	Ground borne vibrations	DMRB HD 213/11 states *"significant ground-borne vibrations may be generated by irregularities in the road surface. Such vibrations are unlikely to be important when considering disturbance from new roads and an assessment would only be necessary in exceptional circumstances"*. Given the advice that ground borne vibration should only be assessed in exceptional circumstances, the fact that the proposal is for a new road Scheme and that there are no suitable methods of prediction, impacts from ground borne road traffic induced vibration will not be considered within the assessment.

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Term	Meaning
Abstraction	Removal of water for public supply or irrigation.
Agricultural Land Classification (ALC)	A relative measure of agricultural land quality in England and Wales. In practice, the ALC grades are defined by reference to the land's physical characteristics. The most productive and flexible land falls into Grades 1 & 2 and Subgrade, 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4. The remainder is very poor quality land in Grade 5, which mostly occurs in the uplands.
Aquifer	An underground rock formation containing water, often used as a water source.
Attenuation	Reduction. The term used in drainage design to indicate a reduction in the rate of flow or flooding risk, for example, by means of a pond to hold back water.
Biodiversity	Biological diversity: The variety of life forms in a given area, includes all species of plants and animals, their genetic variation and the complex ecosystems of which they are part.
Cumulative impact	The combined residual impact of a proposed scheme over the entirety of the scheme, as opposed to residual impact for individual sections of the scheme; also the combined impact with other schemes.
Cutting	A section of road where the surrounding land is at a higher level and the ground has been dug away to put in the road.
Decibel (dB)	Measurement of noise on a logarithmic scale. The range of audible sound pressures is approximately 0 dB to 140 dB. A single dB figure is unhelpful as it describes the total amount of acoustic energy measured and does not take any account of the ear's ability to hear certain frequencies more readily than others.
dBA	The measurement of noise usually used, by subtracting an appropriate correction from the dB figure, to relate better to the loudness of sound heard.
Design Year	In the case of this scheme, 15 years after assumed opening.
Do-Minimum	Future situation assuming no scheme is provided, but that maintenance is on-going.
Do-Something	Future situation with the scheme provided.
Earthworks	The process of excavating or increasing level of soil.

Term	Meaning
Floodplain	Area of land prone to flooding and protected against development. The indicative floodplain is the flood risk area based on a 1 in 100 year storm.
Greenhouse Gas	A gas that helps contribute towards global warming by trapping heat given off from the earth's surface. Under the UN's Kyoto Protocol, the 6 greenhouse gases are carbon dioxide, methane, nitrous oxide, perfluorocarbons, hyrdofluorocarbons and sulphur hexafluoride.
Listed Building	Building or structure listed by the Secretary of State as being of 'special architectural or historic interest'.
Opening Year	In the case of this scheme, assumed to be 2023.
Receptor	Environmental feature that has the potential to be adversely or beneficially affected by an impact of the proposed scheme, e.g., local residents, wildlife and water bodies.
Remediation	Clean up or other methods used to remove or contain hazardous materials from site.
Residual impact	Effects on the environment that occur after mitigation of potential impacts has been implemented.
Source Protection Zone (SPZ)	Area of groundwater protected by the Environment Agency.
Stakeholder	An organisation or individual with a particular interest in the project.
Statutory consultees	Individuals or groups which are contacted and requested to provide information or comment on a scheme, legally recognised under statute.
Study Area	The spatial area within which environmental effects are assessed i.e. extending a distance from the project footprint in which significant environmental effects could occur (this may vary between the topic areas).
Water Framework Directive	The Water Framework Directive (2000/60/EC) (WFD) is a wide-ranging piece of European environmental legislation for the protection of water resources that is being transposed into UK Law.

9 LOCATION AND DESIGN PLANS

9.1 Location and Constraints Map(s)

9.1.1 Table 9-1 below lists the figures included within Appendix B, which comprise the following:

- Geographical location of the Scheme;
- Scheme red line boundary;
- Permanent and temporary land take;
- Historic options considered;
- Topic specific environmental constraints; and
- Cumulative developments.

Table 9-1: Figures Presented at Appendix B

Figure Number	Title	Figure Reference
1.1	Geographical Location of Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-ZZZ-DR-LE-3068
1.2	Red Line Boundary Plan: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3069
1.3	Mottram Moor Link Road and A57(T) to A57 Link Road Permanent and Temporary Land Take	HE551473-ARC-HGN-A57-DR-LE-3070
3.1	Options at Mottram Moor	HE551473-ARC-HGN-A57-DR-LE-3090
3.2	Options at Gun Inn	HE551473-ARC-HGN-A57-DR-LE-3091
3.3	Extended Brief Options	HE551473-ARC-HGN-A57-DR-LE-3092
3.4	DfT Low Cost Option 1 with A57 Link (Glossop Spur) General Arrangement	HE551473-ARC-HGN-A57-DR-LE-3093
5.1	AQMA and Local Authority Monitoring Locations: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3071
5.2	Highways England Air Quality Monitoring Diffusion Tube Locations: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3072
5.3	Sensitive Air Quality Receptor Locations: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3073

Figure Number	Title	Figure Reference
5.4	Heritage Asset Plan: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3074
5.5	Statutory and Non-Statutory Designated Sites for Nature Conservation: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3075
5.6	Phase 1 Habitat Survey: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3076
5.7	Landscape Designations, Public Rights of Way and Viewpoint Locations: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3077
5.8	Local Level Landscape Character Areas: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3078
5.9	Scheme Landscape Character Areas: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3079
5.10	Representative Viewpoints: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3080
5.11	Community Facilities and Commercial Assets: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3081
5.12	Noise Important Areas: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3082
5.13	Bedrock and Superficial Aquifers: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3083
5.14	Water Framework Directive Surface Waterbodies: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3084
5.15	Waterbodies and Flood Zones: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3085
5.16	Environmental Features Associated with Geology and Soils: Mottram Moor Link Road and A57(T) to A57 Link Road	HE551473-ARC-HGN-A57-DR-LE-3086
5.17	Location of Landfill and Waste Management Facilities	HE551473-ARC-HGN-A57-DR-LE-3087
6.1	Cumulative Developments	HE551473-ARC-HGN-A57-DR-LE-3088

10 OUTLINE OF THE STRUCTURE OF THE PROPOSED ES

10.1.1 The ES would comprise three volumes:

- Volume 1A – Main Environmental Statement Text;
- Volume 1B – Environmental Statement Figures; and
- Volume 2 – Environmental Statement Appendices.

10.1.2 A Non-Technical Summary would also be produced.

10.1.3 The ES would reflect the new requirements of the EIA Directive transposed into the UK EIA Regulations in May 2017.

10.1.4 Volume 1A of the ES is currently anticipated to be structured as below in Table 10-1, subject to further discussion with the statutory environmental bodies and the scoping opinion received.

Table 10-1: Outline Structure of Proposed ES

1. **Introduction**
1.1 Purpose of the Report
1.2 Overview of the Project
1.3 Legislative and Policy Framework
1.4 Competent Expert Evidence
2. **The Project**
2.1. Need for the Project
2.2 Project Objectives
2.3 Project Location
2.4 Baseline Scenario
2.5 Project Description
2.6 Construction, Operation and Long Term Management
2.7 Demolition (Phase)
3. **Assessment of Alternatives**
3.1 Assessment Methodology
3.2 Reasonable Alternatives Studied
3.3 Justification for Chosen Option
4. **Environmental Assessment Methodology**
4.1 Environmental Scoping
4.2 Surveys and Predictive Techniques and Methods
4.3 General Assessment Assumptions and Limitations

4.4 Significance criteria
4.5 Duplication of Assessment
5. **Assessments (for each environmental topic scoped into the assessment)**
5.1 Competent Expert evidence
5.2 Legislative and Policy Framework
5.3 Study Area
5.4 Baseline Conditions
5.5 Assessment Methodology
5.6 Assessment Assumptions and Limitations
5.7 Design, Mitigation and Enhancement Measures
5.8 Assessment of Effects
5.9 Monitoring
6. **Assessment of Cumulative Effects**
6.1 Cumulative Assessment Methodology
6.2 Assessment of Combined Effects
6.3 Assessment of Cumulative Effects
6.4 Monitoring
7. **Summary**
8. **References and Glossary**
9. **Location and Design Plans**
Location and Constraints Map(s)
Any other appendices and plans required.

10.1.5 A number of plans would be produced that would support the preparation of the ES and the results presented therein and would also be a mechanism for securing the required mitigation. These are likely to include:

- A Construction Environmental Management Plan including a Pollution Prevention Plan; and
- Environmental Masterplan.

APPENDIX A – SIGNIFICANCE CRITERIA

Air Quality

11.1.1 IAN 174/13 will be used to determine whether the Scheme impacts are considered significant. It is noted that there are other guidance documents in relation to the evaluation of significance in air quality assessments, namely the Institute of Air Quality Management (IAQM) Land-Use Planning and Development Control: Planning for Air Quality January 2017. The IAQM guidance makes clear, however, that it is not appropriate to follow this methodology in the context of road schemes. Paragraph 6.3 of the IAQM guidance states:

"As set out in the introduction in Chapter 1, this guidance document is not intended to replace guidance that exists for certain types of development, notably:

- *Industrial developments that require a Permit;*
- *Highway schemes promoted by Highways England; or*
- *Activities associated with sources of dust (e.g. mineral extraction, waste handling, construction) or odours.*

Separate guidance is available for these sources. Clearly, where new developments are located in the vicinity of such sources, the potential impacts of their operation on the proposed development will need to be considered."

11.1.2 Paragraph 6.4 of the IAQM guidance then states:

"The guidance provided by the Environment Agency and Highways England has a formal status, reflecting the connections these organisations have with Government departments. This EPUK/IAQM guidance has no such status and is not intended as a substitute for the formal guidance."

11.1.3 IAN 174/13 was prepared in order to determine the significance of air quality effects and establish whether a significant impact is triggered for the purposes of paragraph 5.12 of the NN NPS.

11.1.4 Receptors which are predicted to exceed AQS Objectives in the Opening Year, either with or without the Scheme are used to inform the evaluation of significance. The change in air pollutant concentrations predicted at these receptors (either an improvement or deterioration), is used to determine whether the Scheme impacts are significant.

11.1.5 Table 2.1 in IAN 174/13 presents the magnitude of change criteria to be applied to annual average NO_2 and PM_{10} concentrations.

11.1.6 Following DMRB methodology, there remain residual uncertainties as to the impact of the Scheme on air quality, referred to in IAN 174/13 as the Measure of Uncertainty (MoU). This is due to the inherent uncertainty in air quality monitoring, modelling and in the modelled traffic data used in the air quality assessment.

11.1.7 Where the differences in concentrations are less than 1% of the air quality threshold (e.g. less than or equal to 0.4µg/m³ for annual average NO_2), the changes at these receptors are considered to be imperceptible as defined in the IAN 174/13, and are

scoped out of the evaluation on significance. These changes are still reported in the air quality assessment.

11.1.8 Any changes in concentrations above the threshold of imperceptibility are assigned to one of the six categories presented in Table 2.1 of IAN 174/13. The total number of receptors are then aggregated, in order to calculate the number of receptors in each of the six categories.

11.1.9 IAN 174/13 provides guidelines on the number of receptors for each of the magnitude of change categories that might result in a significant effect, as presented in Table 11-1. These are guideline values only, and are to be used to inform professional judgement in determining whether the Scheme would generate significant air quality effects.

Table 11-1: Air Quality – Guideline to Number of Properties Constituting a Significant Effect (Highways England IAN 174/13)

	Number of Receptors with:	
Magnitude of Change in Annual Average NO2 or PM10 (µg/m³)	**Worsening of air quality objective already above objective or creation of a new exceedance**	**Improvement of an air quality objective already above objective or the removal of an existing exceedance**
Large (>4)	1 to 10	1 to 10
Medium (>2)	10 to 30	10 to 30
Small (>0.4)	30 to 60	30 to 60

11.1.10 Where the number of receptors fall below the lower guideline bands to inform significance, the Scheme is deemed not to have a significant impact. Schemes which affect receptors within the guideline bands require justification based on professional judgement to determine whether the impact is significant.

11.1.11 For ecological receptors, IAN 174/13 and Annex F of DMRB HA 207/07 are used to for the air quality assessment of ecologically designated sites and determination of significant effects.

Cultural Heritage

11.1.12 The significance and value of assets will be assessed in line with Historic England guidance Conservation Principles, Policies, and Guidance (Historic England, 2014) and the guidance laid out in DMRB HA 208/07.

11.1.13 Table 11-2 presents the values that will be assigned to archaeological assets.

Table 11-2: Cultural Heritage – Criteria for Determining the Value of Archaeological Assets

Value	Example
Very High	World Heritage Sites (including nominated sites) Assets of acknowledged international importance Assets that can contribute significantly to acknowledged international research objectives
High	Scheduled Monuments (including proposed sites) Non-designated assets of Schedulable quality and importance Assets that can contribute significantly to acknowledged national research objectives
Medium	Designated or non-designated assets that contribute to regional research objectives
Low	Designated and non-designated assets of local importance Assets compromised by poor preservation and/or poor survival of contextual associations Assets of limited value, but with potential to contribute to local research objectives
Negligible	Assets with very little or no surviving archaeological interest.
Unknown	The importance of the resource has not been ascertained

11.1.14 Table 11-3 presents the values that will be assigned to built heritage assets.

Table 11-3: Cultural Heritage – Criteria for Determining the Value of Built Heritage Assets

Value	Example
Very High	Structures inscribed as of universal importance as World Heritage Sites Other buildings of recognised international importance
High	Scheduled Monuments with standing remains Grade I and Grade II* Listed Buildings Other Listed Buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade Conservation Areas containing very important buildings Undesignated structures of clear national importance

Value	Example
Medium	Grade II Listed Buildings Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations Conservation Areas containing buildings that contribute significantly to its historic character Historic townscape or built up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	'Locally Listed' buildings Historic (unlisted) buildings of modest quality in their fabric or historical association Historic townscape or built up areas of limited historic integrity in their buildings or built settings (e.g. including street furniture and other structures)
Negligible	Buildings of no architectural or historical note; buildings of intrusive character
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance

11.1.15 As identified in Section 5.3, the current intention for the Cultural Heritage assessment is to scope out historic landscape character due to its overall modern character and the fragmentary nature of those areas of time depth which do survive. However, if agreement cannot be reached to scope out historic landscape character, the values related to historic landscapes in Table 11-4 would be used.

Table 11-4: Cultural Heritage – Criteria for Determining the Value of Historic Landscape Assets

Value	Example
Very High	World Heritage Sites inscribed for their historic landscape qualities Historic landscapes of international value, whether designated or not Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s)
High	Undesignated historic landscapes of outstanding interest Undesignated historic landscapes of high quality and importance, and of demonstrable national value Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s)

Value	Example
Medium	Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s)
Low	Robust undesignated historic landscapes Historic landscapes with importance to local interest groups Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations
Negligible	Landscapes with little or no significant historical interest

11.1.16 The determination of magnitude of impact upon a heritage asset has been based on the vulnerability of the study area, the current state of survival/condition and the nature of the impact upon it. The survival and extent of archaeological deposits is often uncertain and consequently, the magnitude of impact can be difficult to predict with any certainty. Table 11-5 presents the magnitude of impact criteria related to archaeological assets.

Table 11-5: Cultural Heritage – Criteria for Determining the Magnitude of Impact on Archaeological Assets

Magnitude of Impact	Example
Major	Change to most or all key archaeological materials, such that the resource is totally altered Comprehensive changes to setting
Moderate	Changes to many key archaeological materials, such that the resource is clearly modified Considerable changes to setting that affect the character and significance of the asset
Minor	Changes to key archaeological materials, such that the asset is slightly altered Slight change to setting that affects its significance
Negligible	Very minor changes to archaeological materials, or setting
No Change	No change

11.1.17 Table 11-6 presents the magnitude of impact criteria related to historic buildings.

Table 11-6: Cultural Heritage – Criteria for Determining the Magnitude of Impact on Built Heritage Assets

Magnitude of Impact	Example
Major	Change to key historic building elements, such that the resource is totally altered Comprehensive changes to the setting
Moderate	Change to many key historic building elements, such that the resource is significantly modified Changes to the setting of an historic building, such that it is significantly modified and its significance is affected
Minor	Change to key historic building elements, such that the asset is slightly different Change to setting of an historic building, such that it is noticeably changed and its significance is affected
Negligible	Slight changes to historic building elements or setting that hardly affect it
No Change	No change to fabric or setting

11.1.18 As identified in Section 5.3, the current intention for the Cultural Heritage assessment is to scope out historic landscape character due to its overall modern character and the fragmentary nature of those areas of time depth which do survive. However, if agreement cannot be reached to scope out historic landscape character, the magnitude of impact criteria related to historic landscapes in Table 11-7 would be used.

Table 11-7: Cultural Heritage – Criteria for Determining the Magnitude of Impact on the Historic Landscape

Magnitude of Impact	Example
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound

Magnitude of Impact	Example
	quality; slight changes to use or access: resulting in limited changes to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

11.1.19 Table 11-8 illustrates how information on the value of the asset and the magnitude of impact would be combined to arrive at an assessment of the significance of effect. However, the matrix is not intended to 'mechanise' judgement of the significance of effect but to act as a check to ensure that judgements regarding value, magnitude of impact and significance of effect are reasonable and balanced. In order to allow for professional judgement, in some cases the matrix allows a choice of significance of effect when a magnitude of impact and a value are combined. In these cases the individual attributes of a specific asset, along with any relevant site specific factors and consideration of other influencing elements, would be taken into account when considering which the most appropriate significance of effect is.

Table 11-8: Cultural Heritage – Criteria for Determining the Significance of Effects

		Magnitude of Impact				
		No Change	Negligible	Minor	Moderate	Major
Value	Very High	Neutral	Slight	Moderate/ Large	Large/ Very Large	Very Large
	High	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/ Very Large
	Medium	Neutral	Neutral/ Slight	Slight	Moderate	Moderate/ Large
	Low	Neutral	Neutral/ Slight	Neutral/ Slight	Slight	Slight/ Moderate
	Negligible	Neutral	Neutral	Neutral/ Slight	Neutral/ Slight	Slight

Biodiversity

11.1.20 The potential for significant effects of the Scheme on the identified important ecological features will be assessed primarily using the CIEEM Guidelines, (CIEEM

2016).

11.1.21 The CIEEM Guidelines define a significant effect as *"an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general"*.

11.1.22 Where a significant effect is identified, the importance of the ecological feature is used to help determine the geographical scale at which the effect is significant.

11.1.23 If significant adverse effects are considered likely, the assessment would present mitigation measures that may be required to avoid or minimise a significant adverse effect. The detail of such mitigation would be in agreement with statutory consultees. If, after implementation of mitigation measures, a residual effect is anticipated, potential compensation measures may be required. The approach to determining the importance of ecological features and the significance of effects described above is in accordance with the CIEEM Guidelines. Table 11-9 provides a comparison of the approach for ecology in accordance with IAN 130/10 when defining significance of impacts on Important Ecological Features.

Table 11-9: Biodiversity - CIEEM Guidelines Significance, Compared to IAN 130/10 (Highways England, 2010)

Significance Following CIEEM Guidance	IAN 130/10 (HE, 2010) Significance category
Significant at the international level	Very large
Significant at the national level	
Significant at the regional level	Large
Significant at the county level	Moderate
Significant at the local level	Slight
Not significant	Neutral

Landscape and Townscape Effects

11.1.24 The guidance in IAN 135/10 or any subsequent update of this document will be used to determine whether the Scheme impacts are considered significant.

11.1.25 For effects on the landscape and townscape resource, the assessment of their significance is determined by considering the magnitude of impact arising from the Scheme on each of the features and elements that make up the character of the resource, bearing in mind the value of the landscape (and/or of specific features and elements), and the ability of the landscape to accommodate change of the type proposed (i.e. its sensitivity).

11.1.26 For effects on visual amenity, the assessment of their significance is determined by considering the sensitivity of the visual receptor to the magnitude of impact on visual amenity arising from the Scheme.

11.1.27 The magnitude of impact on the landscape and townscape resource and visual amenity is the degree of change that would arise if the Scheme were to be completed (i.e. 'Do Something'), as compared with a 'Do Minimum' situation. Factors to consider are the scale of the impact, the nature of the impact, whether it is an adverse or beneficial change, and the timescale involved (i.e. temporary, short, medium or long term/permanent).

11.1.28 Indicative criteria guidance in IAN 135/10 for the landscape and townscape resource and for visual amenity are provided in Tables 11-10 and Table 11-11 respectively. IAN 135/10 makes it clear that they are not prescriptive and in making judgements the landscape, professional needs to be able to demonstrate to others a consistent and justifiable argument.

Table 11-10: Landscape and Townscape Resource - Magnitude and Nature of Impact and Typical Descriptors

Magnitude of Impact	Typical Criteria Descriptor
Major Adverse	Total loss or large scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements.
Moderate Adverse	Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements.
Minor Adverse	Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.
Negligible Adverse	Barely noticeable loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.
No Change	No noticeable loss, damage or alteration to character or features or elements.
Negligible Beneficial	Barely noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.
Minor Beneficial	Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.
Moderate Beneficial	Partial or noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.
Major Beneficial	Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features

Table 11-11: Visual Amenity - Magnitude and Nature of Impact and Typical Descriptors

Magnitude of Impact	Typical Criteria Descriptor
Major	The Scheme, or a part of it, would become the dominant feature or focal point of the view.
Moderate	The Scheme, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Minor	The Scheme, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view
Negligible	Only a very small part of the Scheme would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view
No Change	No part of the Scheme, or work or activity associated with it, is discernible.

11.1.29 Landscape sensitivity will depend on the character of the receiving landscape, the nature of the Scheme and the type of change. Visual sensitivity is categorised by the sensitivity of the visual receptor, and will include people in their homes, users of public rights of way and other areas of open space or recreational landscapes, people at work and people travelling along roads or railway lines. Indicative sensitivity criteria guidance for the landscape and townscape resource and for visual amenity set out in IAN 135/10 are provided in Table 11-12 and Table 11-13 respectively. As with the determination of magnitude of impact, these are not prescriptive and in making judgements the landscape professional needs to be able to demonstrate to others a consistent and justifiable argument.

Table 11-12: Landscape and Townscape Resource – Sensitivity and Typical Descriptor and Examples

Sensitivity	Typical Descriptor and Example
High	Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically, these would be; • Of high quality with distinctive elements and features making a positive contribution to character and sense of place. • Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale. • Areas of special recognised value through use, perception or historic and cultural associations. Likely to contain features and elements that are rare and could not be replaced.

Sensitivity	Typical Descriptor and Example
Moderate	Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically, these would be; • Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place, locally designated, or their value may be expressed through non-statutory local publications. • Containing some features of value through use, perception or historic and cultural associations. Likely to contain some features and elements that could not be replaced.
Low	Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically, these would be; • Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place. • Not designated. • Containing few, if any, features of value through use, perception or historic and cultural associations. Likely to contain few, if any, features and elements that could not be replaced.

Table 11-13: Visual Amenity – Sensitivity and Typical Descriptor and Examples

Sensitivity	Typical Descriptor and example
High	• Residential properties. • Users of public rights of way or other recreational trails (e.g. National Trails, footpaths, bridleways etc.). • Users of recreational facilities where the purpose of that recreation is enjoyment of the countryside (e.g. Country Parks, National Trust or other access land etc.).
Moderate	• Outdoor workers • Users of scenic roads, railways or waterways or users of designated tourist routes. • Schools and other institutional buildings, and their outdoor areas.
Low	• Indoor workers

Sensitivity	Typical Descriptor and example
	• Users of main roads (e.g. trunk roads) or passengers in public transport on main arterial routes. • Users of recreational facilities where the purpose of that recreation is not related to the view (e.g. sports facilities).

11.1.30 In terms of the significance of the effect, IAN 135/10 indicates:

- A major magnitude of change on a highly sensitive receptor will produce an effect of high significance;
- A minor magnitude of change on a less sensitive receptor will produce an effect of low or negligible significance; and
- Major changes for less sensitive receptors and minor changes for more sensitive receptors could also produce significant levels of effect.

11.1.31 IAN 135/10 notes:

"that it is not possible to set out a precise formula for the determination of the significance of effect as every case is different, and it is therefore important that the significance level determined is supported by reasoned justification in the form of a written explanation (supported by photographs and other illustrations as appropriate), so that the basis for the assessment is clear. This is particularly important where a highly sensitive receptor experiences a moderate magnitude of impact, justification for the assessment of either a moderate or large degree of significance should be given".

People and Communities

11.1.32 Unless otherwise specified, the definitions of magnitude of impact and significance of effect will be developed using professional judgement from those presented in DMRB. Table 11-14 sets out how the magnitude of impacts will be assessed for the Land Use assessment.

Table 11-14: People and Communities – Magnitude of Impacts – Land Use

Score	Definition
Major Adverse	Loss of resource or severe damage to resource. For example: • The demolition of buildings or significant loss of land (>50% of total footprint) • Complete severance of access to private or commercial asset • Permanent loss or degradation of over 20ha of best and most versatile land (BMVL), or entire regional resource of BMVL (ALC Grades 1, 2, 3a). • Existing land-use would not be able to continue
Moderate Adverse	Where the extent of effects may be moderate. For example: • Moderate loss of land (between 25% to 50% of total footprint)

Score	Definition
	• Major severance of access to private or commercial asset • Permanent loss or degradation of 5-20ha of BMVL, or large proportion of regional resource of BMVL. • Existing land-use would be able to continue but with major changes such as loss of yield, additional land management or increased use of fertilisers and herbicides.
Minor Adverse	Where the extent of effects are considered to be minor. For example: • Minor loss of land (<25% of total footprint) • Some partial or temporary severance of access to private or commercial asset • Permanent loss or degradation of <5ha of BMVL, or small proportion of regional resource of BMVL. • Existing land-use would be able to continue but with some changes such as loss of yield, additional land management or increased use of fertilisers and herbicides.
Negligible Adverse	• Very minor detrimental alteration to the characteristics of one or more receptor(s) • Permanent loss or degradation of non-BMVL BMVL. • Short term impacts to receptors with no impact on integrity. No material change to existing land-use
No change	• No observable impact in either direction, positive or negative
Negligible Beneficial	• Very minor benefit, or positive addition to the characteristics of one or more receptor(s)
Minor Beneficial	• Some measurable positive change for example in employment levels,
Moderate Beneficial	• Where there may be moderate beneficial effects (for example improved access to local services and facilities)
Major Beneficial	• Large scale or major improvement of resource; extensive enhancement (for example significant employment creation)

11.1.33 Table 11-15 sets out how assessments of significance would be made.

Table 11-15: People and Communities – Determination of the Significance of Effects

Magnitude of Impact (Change)	Value/sensitivity of Receptor/Resource		
	High	Medium	Low
Major	Major	Major	Moderate
Moderate	Major	Moderate	Minor
Minor	Moderate	Minor	Minor
Negligible	Minor	Minor	Negligible

Noise and Vibration

11.1.34 The methodology used will be as set out in DMRB HD 213/11.

11.1.35 A change in road traffic noise of 1dB(A) in the short term is considered within DMRB HD 213/11 as the smallest perceptible change and classified as the short-term threshold criteria. The magnitude of road traffic noise impact from the Scheme will therefore be classified in accordance with DMRB HD 213/11, as detailed in Table 11-16.

Table 11-16: Noise and Vibration – Classification of Magnitude of Noise Impact (Short Term)

Noise Change Band $L_{A10(18\ hour)}$ dB	Magnitude of Impact
0	No change
0.1 to 0.9	Negligible
1 to 2.9	Minor
3 to 4.9	Moderate
5 or more	Major

11.1.36 In the long term, DMRB HD 213/11 classifies a 3dB(A) change in operational road traffic noise as the smallest change perceptible due to the change in noise level being gradual over time, and therefore specifies this as the long term threshold criteria.

11.1.37 However, consideration also needs to be given to National Policy with regards to noise and levels of Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL). Planning Practice Guidance on noise published by the Department for Communities and Local Government to support National Planning Policies states "*In cases where existing noise sensitive locations already experience high noise levels, a development that is expected to cause even a small increase in the overall noise level may result in a significant adverse effect occurring even though little to no change in behavior would be likely to occur*".

11.1.38 To account for this at locations where long term road traffic noise levels are

predicted to be above SOAEL, the change in road traffic noise will assessed against the short term criteria of DMRB HD 213/11 as this is based upon the smallest perceptible change in road traffic noise.

11.1.39 Therefore, consideration of the magnitude of change to be used at receptors predicted to be either above or below SOAEL in the long term is presented in Table 11-17.

Table 11-17: Noise and Vibration – Classification of Magnitude of Noise Impacts (Long Term)

Magnitude of Impact for Receptors Above SOAEL		Magnitude of Impact for Receptors Below SOAEL and Other Sensitive Receptors	
Noise change, dB(A)	Magnitude of Impact	Noise change, dB(A)	Magnitude of Impact
0	No Change	0	No Change
0.1 to 0.9	Negligible	0.1 to 2.9	Negligible
1 to 2.9	Minor	3 to 4.9	Minor
3 to 4.9	Moderate	5 to 9.9	Moderate
>5	Major	>10	Major

11.1.40 In terms of road traffic noise, a methodology has not yet been developed to assign a significance according to both the value of a resources and the magnitude of an impact; therefore, operational road traffic noise significance will be defined based upon professional judgement with consideration given to:

- The resultant predicted road traffic noise level;
- The magnitude of change; and
- Numbers of dwellings adversely and beneficially effected.

Road Drainage and the Water Environment

11.1.41 The first stage of the adopted assessment methodology, from DMRB HD 45/09, requires the assignment of environmental importance to identified receptors. This judgement is made based on quality, scale, rarity and substitutability. The categories of importance of each resource is assessed using the criteria in Table A4.3 of DMRB HD 45/09 (Estimating the Importance of Water Environment Attributes), provided in Table 11-18 below.

Table 11-18: Road Drainage and the Water Environment – Estimating the Value of Water Environment Attributes

Value	Construction /Operation	Potential Effects	
Very High	Attribute has a high quality and rarity on a regional or national scale.	Surface Water	EC Designated Salmonid/Cyprinid Fishery WFD Class 'High' Site protected/designated under European Commission (EC) or United Kingdom (UK) habitat legislation (SAC, SPA, SSSI, Water Protection Zone (WPZ), Ramsar site, salmonid water) or species protected by EC legislation.
		Groundwater	Principal aquifer providing a regionally important resource or supporting site protected under EC and UK habitat legislation. Source Protection Zone (SPZ) 1.
		Flood Risk	Floodplain or defence protecting more than 100 residential properties from flooding.
High	Attribute has a high quality and rarity on local scale.	Surface Water	WFD Class 'Good' Major Cyprinid Fishery Species protected under EC or UK habitat legislation.
		Groundwater	Principal aquifer providing locally important resource or supporting river ecosystem SPZ2.
		Flood Risk	Floodplain or defence protecting between 1 and 100 residential properties or industrial premises from flooding.
Medium	Attribute has a medium quality and rarity on local scale.	Surface Water	WFD Class 'Moderate'.
		Groundwater	Aquifer providing water for agricultural or industrial use with limited connection to surface water

Value	Construction /Operation	Potential Effects	
			SPZ3.
		Flood Risk	Floodplain or defence protecting 10 or fewer industrial premises from flooding.
Low	Attribute has a low quality and rarity on a local scale.	Surface Water	WFD Class 'Poor'.
		Groundwater	Unproductive strata.
		Flood Risk:	Floodplain with limited constraints and a low probability of flooding of residential and industrial premises.

11.1.42 The magnitude of each impact (change) on the baseline conditions is assessed based on the expected scale/extent of the change, the nature and the duration of the impact. Impacts may be either beneficial (positive) or adverse (negative), which will be highlighted when assessing the magnitude of impacts using the criteria provided in Table A4.4 of DMRB HD 45/09 (Estimating the Magnitude of an Impact on Attribute), provided in Table 11-19 below.

Table 11-19: Road Drainage and the Water Environment – Estimating the Magnitude of Impact

Magnitude	Criteria	Typical Examples	
Major Adverse	Results in loss of attribute and/or quality and integrity of the attribute.	Surface Water	Failure of both soluble and sediment-bound pollutants in HAWRAT (Method A, Annex I) and compliance failure with EQS values (Method B) Calculated risk of pollution from a spillage >2% annually (Spillage Risk Assessment, Method D, Annex I) Loss or extensive change to a fishery Loss or extensive change to a designated Nature Conservation Site
		Groundwater	Loss of, or extensive change to, an aquifer Potential high risk of pollution to groundwater from routine runoff –

Magnitude	Criteria	Typical Examples	
			risk score >250 (Groundwater Assessment, Method C, Annex I) Calculated risk of pollution from spillages >2% annually (Spillage Risk Assessment, Method D, Annex I) Loss of, or extensive change to, groundwater supported designated wetlands
		Flood Risk	Increase in peak flood level (1% annual probability) >100 mm (Hydrological Assessment of Design Floods and Hydraulic Assessment, Methods E and F, Annex I)
Moderate Adverse	Results in effect on integrity of attribute, or loss of part of attribute.	Surface Water	Failure of both soluble and sediment-bound pollutants in HAWRAT (Method A, Annex I) but compliance with EQS values (Method B) Calculated risk of pollution from spillages >1% annually and <2% annually Partial loss in productivity of a fishery
		Groundwater	Partial loss or change to an aquifer Potential medium risk of pollution to groundwater from routine runoff – risk score 150-250 Calculated risk of pollution from spillages >1% annually and <2% annually Partial loss of the integrity of groundwater supported designated wetlands
		Flood Risk	Increase in peak flood level (1% annual probability) >50 mm
Minor Adverse	Results in some measurable	Surface Water	Failure of either soluble or sediment-bound pollutants in HAWRAT

Magnitude	Criteria	Typical Examples	
	change in attribute quality or vulnerability.		Calculated risk of pollution from spillages >0.5% annually and <1% annually
		Groundwater	Potential low risk of pollution to groundwater from routine runoff – risk score <150 Calculated risk of pollution from spillages >0.5% annually and <1% annually Minor effects on groundwater supported wetlands
		Flood Risk	Increase in peak flood level (1% annual probability) >10mm
Negligible	Results in effect on attribute, but of insufficient magnitude to affect the use or integrity	The proposed scheme is unlikely to affect the integrity of the water environment.	
		Surface Water	No risk identified by HAWRAT (Pass both soluble and sediment-bound pollutants) Risk of pollution from spillages <0.5%
		Groundwater	No measurable impact upon an aquifer and risk of pollution from spillages <0.5%
		Flood Risk	Negligible change in peak flood level (1% annual probability) <+/- 10 mm
Minor Beneficial	Results in some beneficial effect on attribute or a reduced risk of negative effect occurring.	Surface Water	HAWRAT assessment of either soluble or sediment-bound pollutants becomes Pass from an existing site where the baseline was a Fail condition Calculated reduction in existing spillage risk by 50% or more (when existing spillage risk is <1% annually)
		Groundwater	Calculated reduction in existing spillage risk by 50% or more to an aquifer (when existing spillage risk <1% annually)

Magnitude	Criteria	Typical Examples	
		Flood Risk	Reduction in peak flood level (1% annual probability) >10 mm
Moderate Beneficial	Results in moderate improvement of attribute quality.	Surface Water	HAWRAT assessment of both soluble and sediment-bound pollutants becomes Pass from an existing site where the baseline was a Fail condition Calculated reduction in existing spillage by 50% or more (when existing spillage risk >1% annually)
		Groundwater	Calculated reduction in existing spillage risk by 50% or more (when existing spillage risk is >1% annually)
		Flood Risk	Reduction in peak flood level (1% annual probability) >50 mm
Major Beneficial	Results in major improvement of attribute quality.	Surface Water	Removal of existing polluting discharge, or removing the likelihood of polluting discharges occurring to a watercourse
		Groundwater:	Removal of existing polluting discharge to an aquifer or removing the likelihood of polluting discharges occurring Recharge of an aquifer
		Flood Risk:	Reduction in peak flood level (1% annual probability) >100 mm

11.1.43 The overall significance of effects on hydrology, flood risk, surface and groundwater receptors is then calculated by combining the value (sensitivity) of the receptor with the magnitude of the impact (change), as shown in Table A4.5 of DMRB HD 45/09 (Estimating the Significance of Potential Effects), provided in Table 11-20 below.

Table 11-20: Road Drainage and the Water Environment – Estimating the Significance of Effects

Importance of Attribute	Magnitude of Impact			
	Negligible	Minor	Moderate	Major
Very High	Neutral	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight/Moderate	Moderate/Large	Large/Very Large
Medium	Neutral	Slight	Moderate	Slight/Moderate
Low	Neutral	Neutral	Slight	Slight/Moderate

11.1.44 Where more than one significance outcome is possible, professional judgement will be used to determine which is most appropriate on a case-by-case basis and ensuring regard to the precautionary principle.

11.1.45 Significant effects may be either beneficial (positive) or adverse (negative) and this will be highlighted when assessing residual effects.

Geology and Soils

11.1.46 For determination of significance criteria for the assessment of effects on the receptors/resource, guidance will be sought from CLR11, CIRIA C552 and professional judgement.

11.1.47 The value of the identified receptors/resources will be assessed against the criteria shown in Table 11-21 below. This has been based on the guidance provided in DMRB HA 205/08.

Table 11-21: Geology and Soils – Value (or Sensitivity) and Typical Descriptors

Sensitivity/Value	Description of Resource (Receptor)
Very High	• **Geology** - Very rare and/or of very high national and regional geological/geomorphological importance with no potential for replacement • **Hydrogeology** - Principal groundwater aquifers (Source Protection Zone 1) or contaminated land with highly mobile contaminants) • **Hydrology** – EC Designated Salmonid/Cyprinid Fishery, WFD Class 'High, designated sites such as SAC, SPA, SSSI, WPZ, Ramsar site, salmonid water • **Human Health**[2] – Current/future users of residential

[2] ***Duration of exposure to contamination and number of pathways of exposure to contamination increases from

Sensitivity/Value	Description of Resource (Receptor)
	properties with private gardens
High	• **Geology** - Medium national and/or high regional geological/geomorphological importance with limited potential for replacement • **Hydrogeology** - Principal groundwater aquifers (Source Protection Zone 2) or contaminated land with mobile contaminants) • **Hydrology** –WFD Class 'Good', Major Cyprinid Fishery, Species protected under EC or UK habitat legislation. • **Human Health*** – Current/future users of allotments/public open space and nearby residents
Medium	• **Geology** - Low regional and/or high local geological/geomorphological importance with some potential for replacement • **Hydrogeology** - Secondary groundwater aquifers (Source Protection Zone 3) or contaminated land with contaminants of low mobility) • **Hydrology** – WFD Class 'Moderate'. • **Human Health*** – Current/future users of residential properties without private gardens
Low	• **Geology** - Local geological/geomorphological importance with potential for replacement • **Hydrogeology** - Secondary groundwater aquifers or contaminated land with immobile contaminants • **Hydrology** – WFD Class 'Poor'. • **Human Health*** – Current/future users of the completed highway and associated landscaping
Negligible	• **Geology** - Little local geological/geomorphological interest • **Hydrogeology** - Non-aquifers and brownfield land with negligible contamination • **Hydrology** – WFD Class 'Poor'. • **Human Health*** – Current/future users of commercial/ industrial properties

11.1.48 The magnitude of impacts on receptors/resources will be described using the criteria outlined in Table 11-22.

commercial/industrial (minimum) to residential with private garden (maximum) land uses. Therefore, future users of industrial sites are considered to be of negligible importance as they would have minimal contact with underlying soils, whilst residential ends users are likely to be in contact with underlying soils on a more regular basis and are therefore of very high value.

Table 11-22: Geology and Soils – Criteria for Determining the Magnitude of Impact

Magnitude of Impact	Definition
Major adverse	• **Geology -** The Scheme is very damaging to the geological environment/soils resource of the study area; may result in loss of or damage to areas designated as being of regional or national geodiversity value; and the effects cannot be mitigated. • **Human Health** - Significant harm to a designated receptor (e.g. human health) is likely to arise from an identified hazard at the site without appropriate remedial action. • **Hydrogeology** - Loss of, or extensive change to an aquifer used for potable supply, potential high risk of pollution of groundwater. • **Hydrology** - Loss or extensive change to a fishery, Loss or extensive change to a designated Nature Conservation Site
Moderate adverse	• **Geology -** The Scheme may result in the loss of or damage to areas designated as being of national and/or regional geodiversity value within the study area. Some mitigation may be possible but would not prevent damage to the geological environment, as some features of interest would be lost or partly destroyed. • **Human Health** It is possible that without appropriate remedial action, significant harm to a designated receptor (e.g. human health) could arise to a designated receptor but it is relatively unlikely that any such harm would be severe and if any harm were to occur, it is likely that such harm would be relatively mild. • **Hydrogeology** - Partial loss or change to an aquifer, potential medium risk of groundwater pollution. Partial loss of the integrity of groundwater supported designated wetlands. • **Hydrology -** Partial loss in productivity of a fishery
Minor adverse	• **Geology -** The Scheme would not affect areas with regional or national geodiversity value but may result in the loss of or damage to areas of local geodiversity value. The effects cannot be completely mitigated but opportunities exist for local enhancement of geodiversity value. • **Human Health** - It is possible that harm could arise to a designated receptor (e.g. human health) from an identified hazard but it is likely that at worst this harm if realised would normally be mild. • **Hydrogeology** - No significant change to an aquifer, potential low risk of pollution to groundwater Minor effects on groundwater supported wetlands • **Hydrology** – Slight decrease in water quality
Negligible adverse	• **Geology -** The Scheme would result in very minor loss of geodiversity value of local areas of geological interest/soils resource such that mitigation is not considered practical.

Magnitude of Impact	Definition
	• **Human Health** There is a low possibility that harm could arise to a designated receptor. In the event of such harm being realised, it is likely to be mild or minor. • **Hydrogeology** The Development is unlikely to affect the integrity of the water environment. • **Hydrology –** Negligible decrease in water quality
No change	No observable effect either adversely or beneficially.
Negligible beneficial	The Scheme would be of minor benefit to geodiversity value by potentially providing greater exposure and/or protection. The Scheme may resolve slight impact from existing land or water contamination.
Minor beneficial	The Scheme may result in the exposure of geological formations that may become of significant local interest. The Scheme may resolve minor impact from existing land or water contamination.
Moderate beneficial	There is benefit to the geodiversity value of the geological/soils resource of the area as a result of the Scheme. The Scheme may result in the exposure of geological formations that may become of significant regional interest. The Scheme may resolve moderate impact arising from existing land or water contamination
Major beneficial	The Scheme is very beneficial to the geodiversity value of the geological/soils resource of the area. The Scheme may result in the exposure of geological formations that may become of significant regional and/or national interest. The Scheme may resolve major impact arising from existing land or water contamination.

11.1.49 The determination of significance of the impact is a factor of the value/sensitivity of the feature/resource (receptor) and the magnitude of the impact (change) as described above. Table 11-23 shows how the significance of effect is derived. Where more than one significance outcome is possible, professional judgement will be used to determine which is most appropriate on a case-by-case basis.

Table 11-23: Geology and Soils – Criteria for Determining the Significance of Effects

Magnitude of Impact (Change)	Value/sensitivity of Receptor/Resource				
	Very high	**High**	**Medium**	**Low**	**Negligible**
Major	Very large	Large/very large	Moderate/large	Moderate	Slight
Moderate	Large/very large	Moderate/large	Moderate	Slight	Neutral
Minor	Moderate/large	Moderate	Slight	Neutral	Neutral
Negligible	Slight	Slight	Neutral	Neutral	Neutral
No change	Neutral	Neutral	Neutral	Neutral	Neutral

Materials

11.1.50 Environmental value of resource is not covered by IAN 153/11 and there are no accepted criteria for determining the value of material resources and waste (including waste infrastructure). In the absence of such guidance, the materials assessment would be undertaken using the professional judgement of material resources and waste specialists. The assessment criteria that would be used for assessing environmental value and typical resources is presented in Table 11-24 below.

Table 11-24: Materials – Criteria for Determining the Value of Resource

Value of Resource	Criteria
Very High	▪ Very high scarcity of required material resource ▪ There is no available waste management infrastructure capacity within the study area for any waste arisings from the Scheme ▪ Very high importance and rarity, national scale. Very limited materials reuse, recycling and or recovery ▪ No capacity of existing highways network to accommodate any increases in lorry movements resulting from the flow of material resources and wastes to and from the Scheme
High	▪ High scarcity of required material resource ▪ There is limited waste management infrastructure capacity within the study area in relation to the forecast waste arisings from the Scheme ▪ High importance and rarity, regional scale. Limited materials reuse, recycling and or recovery ▪ Low capacity of existing highways network to accommodate any increases in lorry movements resulting from the flow of material resources and wastes to and from the Scheme
Medium	▪ Medium scarcity of required material resource. ▪ There is adequate waste management infrastructure capacity within the study area for the majority of waste arisings from the Scheme ▪ High or medium importance and rarity, regional scale. Moderate materials reuse, recycling and or recovery ▪ Medium capacity of existing highways network to accommodate any increases in lorry movements resulting from the flow of material resources and wastes to and from the Scheme
Low	▪ Low scarcity of required material resource

Value of Resource	Criteria
	▪ There is adequate available waste management infrastructure capacity within the study area for all waste arising from the Scheme ▪ Low or medium importance and rarity, local scale. High materials reuse, recycling and or recovery ▪ High capacity of existing highways network to accommodate any increases in lorry movements resulting from the flow of material resources and wastes to and from the Scheme
Negligible	▪ Negligible scarcity of required material resource ▪ There is waste management infrastructure capacity within the study area for all waste arisings from the Scheme ▪ Negligible importance and rarity, local scale. Very high materials reuse, recycling and or recovery ▪ Very high capacity of existing highways network to accommodate any increases in lorry movements resulting from the flow of material resources and wastes to and from the Scheme

11.1.51 The magnitude of each impact will be assessed using the criteria provided in Table 11-25 below.

Table 11-25: Materials – Criteria for Determining the Magnitude of Impact

Magnitude of impact	Criteria
Major	• Loss of natural resources and or quality and integrity of natural resources; severe damage to key characteristics, features or elements • Waste arisings from the Project are predominantly disposed of to landfill or to incineration without energy recovery with little or no prior segregation • Generation of large quantities of hazardous and inert waste which are managed for disposal using methods lower down the waste hierarchy (e.g. landfill or incineration with energy recovery)
Moderate	• Loss of natural resources, but not adversely affecting the integrity; partial loss of or damage to key characteristics, features or elements • Waste arisings from the Project are predominantly disposed of by incineration with energy recovery • Generation of moderate quantities of hazardous and inert waste which are managed for disposal using methods lower down the

Magnitude of impact	Criteria
	Waste Hierarchy (e.g. landfill or incineration with energy recovery)
Minor	• Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements • Waste arisings from the Project are predominantly segregated and sent for composting, recycling or for further segregation and sorting at a materials recovery facility • Generation of small quantities of hazardous and inert waste which is managed for disposal using methods lower down the Waste Hierarchy (e.g. landfill or incineration with energy recovery)
Negligible	• Very minor loss or detrimental alteration to one or more characteristics, features or elements • Waste arisings from the Project are predominantly reused on site or at an appropriately licensed or registered exempt site elsewhere • Generation of negligible quantities of hazardous and inert waste which are managed for disposal using methods lower down the Waste Hierarchy (e.g. landfill or incineration with energy recovery)
No Change	• No loss or alteration of characteristics, features or elements; no observable impact in either direction • All waste arisings from the Project are reused on site or at an appropriately licensed or registered exempt site elsewhere • No generation of hazardous waste. All inert materials reused onsite

11.1.52 The definition of significance will be defined as detailed in Table 11-26 below.

Table 11-26: Materials – Criteria for Determining the Significance of Effect

Significance	Criteria
Very Large	• Significant change in environmental conditions. Impacts are likely to be of a very high magnitude and frequency and will impact on the existing strategy to deal with material resources and waste • Impact likely to be on a permanent basis
Large	• Considerable change in environmental conditions. Impacts are

Significance	Criteria
	likely to be of a high magnitude and frequency and will have an effect on the existing strategy to deal with material resources and waste • Impact likely to be on a permanent basis
Moderate	• Noticeable change in environmental conditions. Impacts are likely to be of a high magnitude and frequency and will have an effect on the existing strategy to deal with material resources and waste • Impact likely to be on a permanent basis
Slight	• Barely perceptible change in environmental conditions. Impacts are likely to be of a low magnitude and frequency and will have an effect on the existing strategy to deal with material resources and waste • Impact likely to be on a temporary basis
Neutral	• No discernible change in environmental conditions. Impacts are likely to be of a negligible magnitude and frequency and will not have an effect on the existing strategy to deal with material resources and waste • No impact

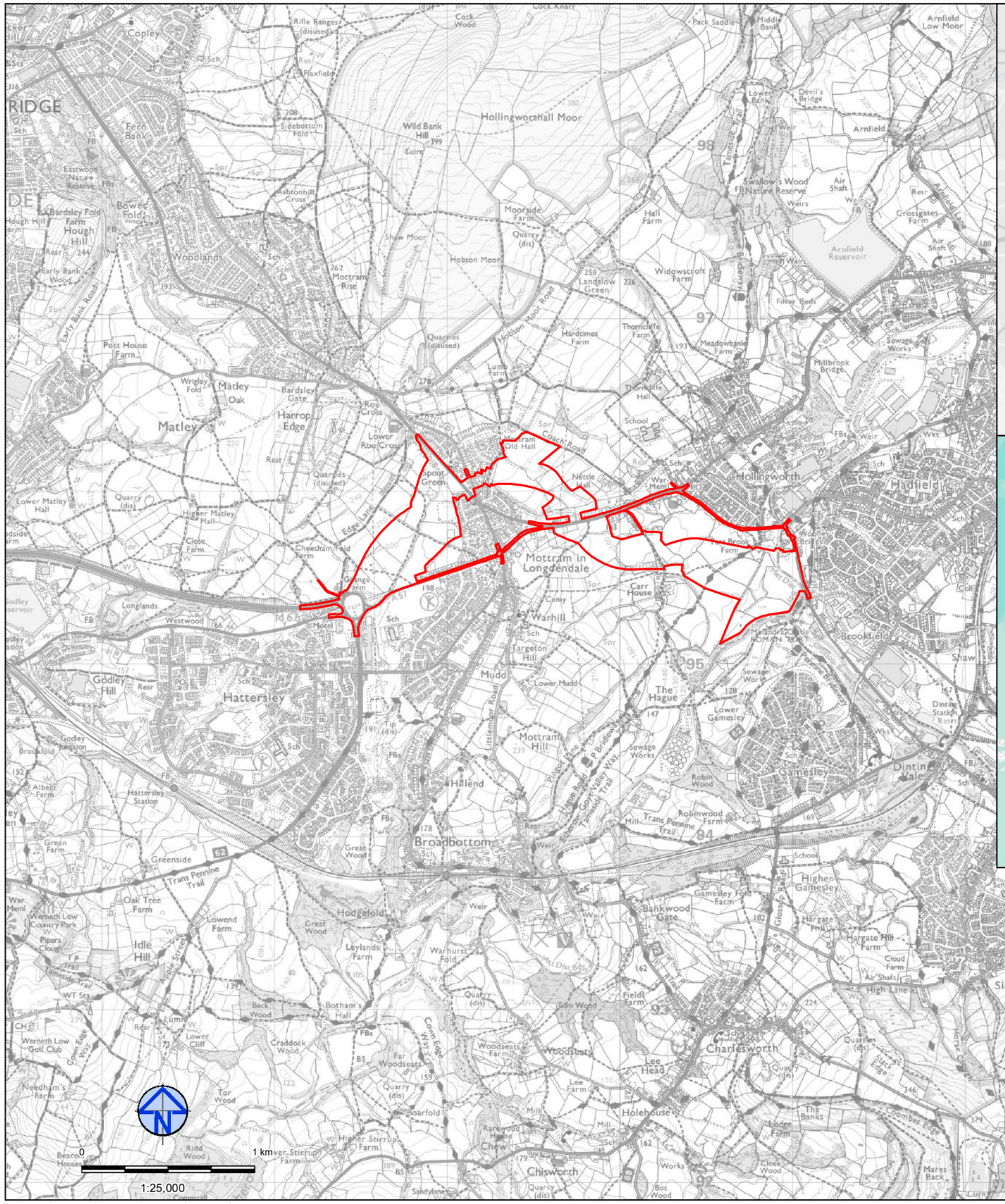
11.1.53 The significance of each effect will be assessed using the matrix provided in Table 2.4 of DMRB HA 205/08, by cross referencing the value of the receptor with the magnitude of impact.

Climate

11.1.54 As noted in Section 5.10, appropriate adaptation measures will be incorporated into the Scheme design during both construction and operation to reduce the vulnerability of the Scheme to climate change. These measures would then be assessed as required in other relevant environmental topic chapters. The risk assessment undertaken to understand the Schemes' vulnerability to climate change will be reported in the climate chapter. Therefore, there are no specific significance criteria for the assessment of climate change adaptation effects.

11.1.55 With regards to Greenhouse Gas emissions, there are no recognised significance criteria and the information presented will demonstrate the levels of emissions predicted during construction and operation.

APPENDIX B – SUPPORTING FIGURES



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Sources: Esri, DeLorme, USGS, NPS,
Sources: Esri, USGS, NOAA

Legend

🟥 Red Line Boundary

Issue	Description	Date
01	Draft	06/11/17

Status
PRELIMINARY/CONFIDENTIAL

Scale	1:25,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
Projection	O.S	© Copyright reserved	

Client
highways england

ARCADIS Design & Consultancy for natural and built assets

Project
A57/A628
TRANS-PENNINE
UPGRADE PROGRAMME

Title
FIGURE 1.1
GEOGRAPHICAL LOCATION OF
MOTTRAM MOOR LINK ROAD
AND A57 (T) TO A57 LINK ROAD

Drawing No.
HE551473-ARC-HGN-A57-DR-LE-3068

50mm on Original

Date: 06/11/2017 16:38:21 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\1_1_HE551473-ARC-HGN-A57-DR-LE-3068_Geographical Location of Mottram Moor link Road and A57 to A57 Link Road.mxd

Legend

- Mottram Moor Link Road and A57 (T) to A57 Link Road
- Red Line Boundary

Issue	Description	Date
01	Draft	03/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:10,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
Projection	O.S		

Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 1.2 RED LINE BOUNDARY PLAN: MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3069

0 200 400 600 Metres

1:10,000

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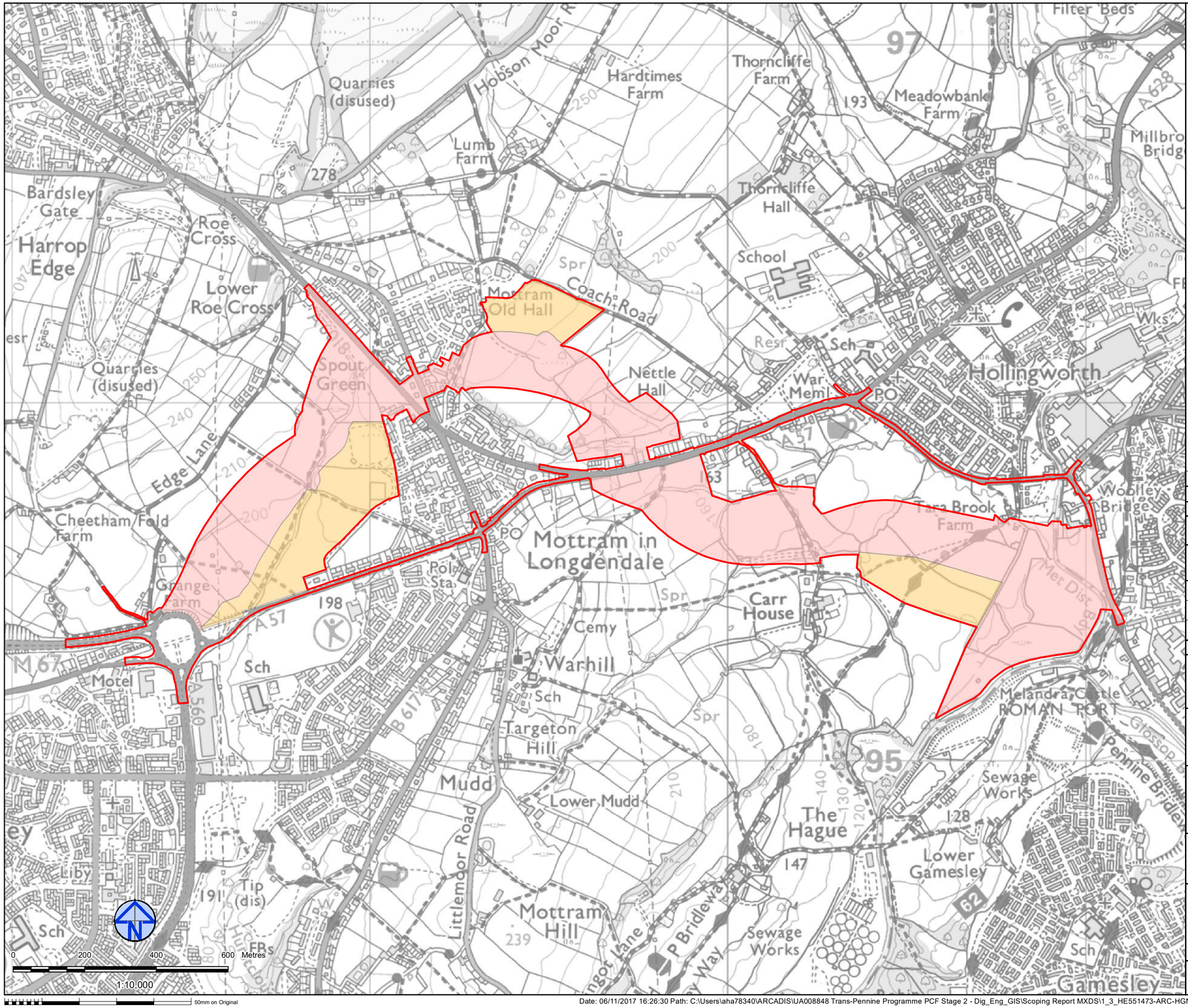

01	Draft	06/11/17
Issue	Description	Date

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:10,000	Current Issue Signatures	
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Original Size	A3	Checked M.MUTALE	
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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 1.3 PERMANENT AND TEMPORARY LAND TAKE MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3070

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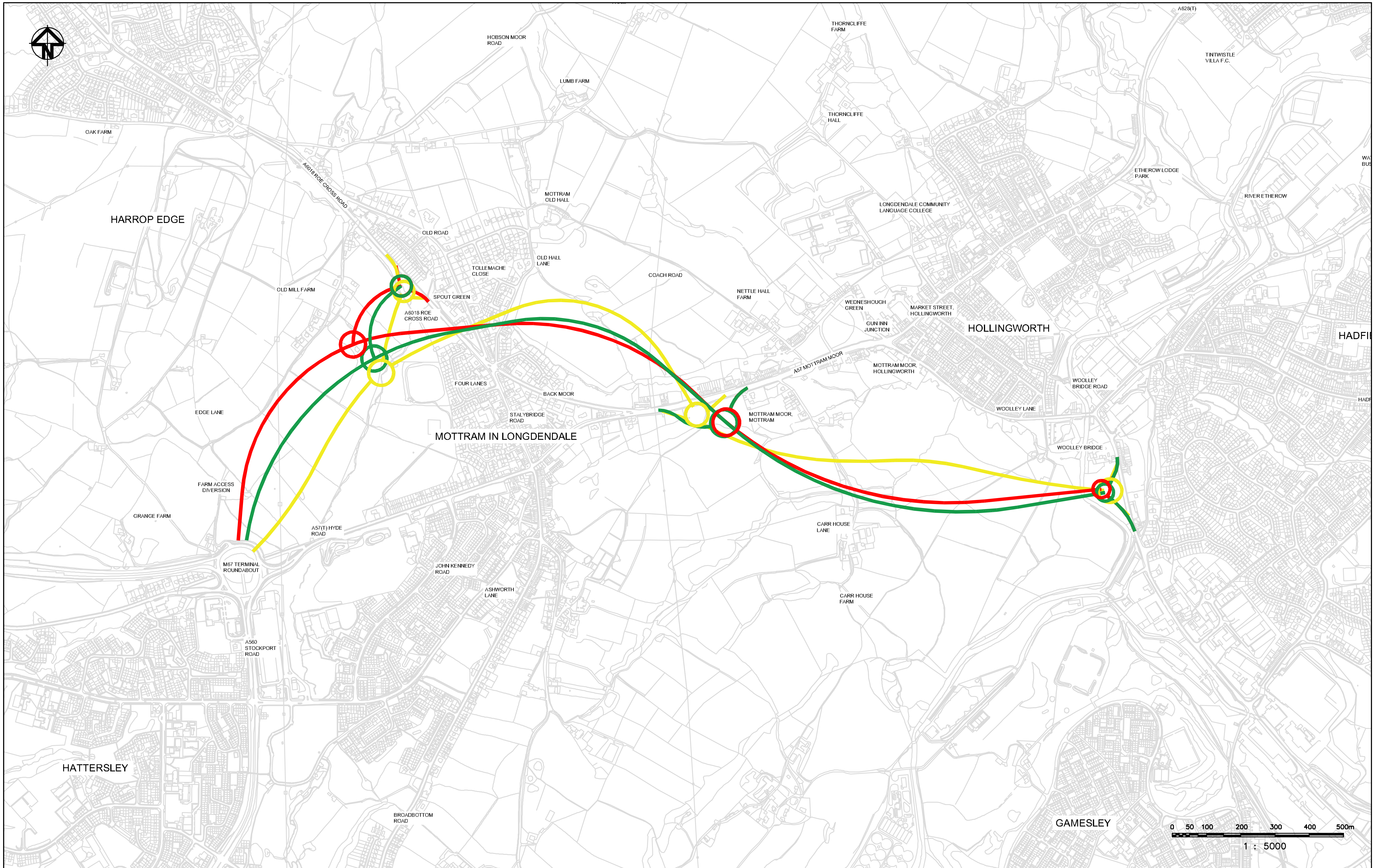

KEY:

Yellow line	OPTION 0
Red line	OPTION 3
Green line	OPTION 4

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Apprv'd

Client: highways england

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Coordinating office: 5th Floor, 401 Faraday Street, Birchwood, Warrington, WA3 6GA. Tel: 44 (0)1925 800700

Project: TRANS-PENNINE UPGRADE PROGRAMME

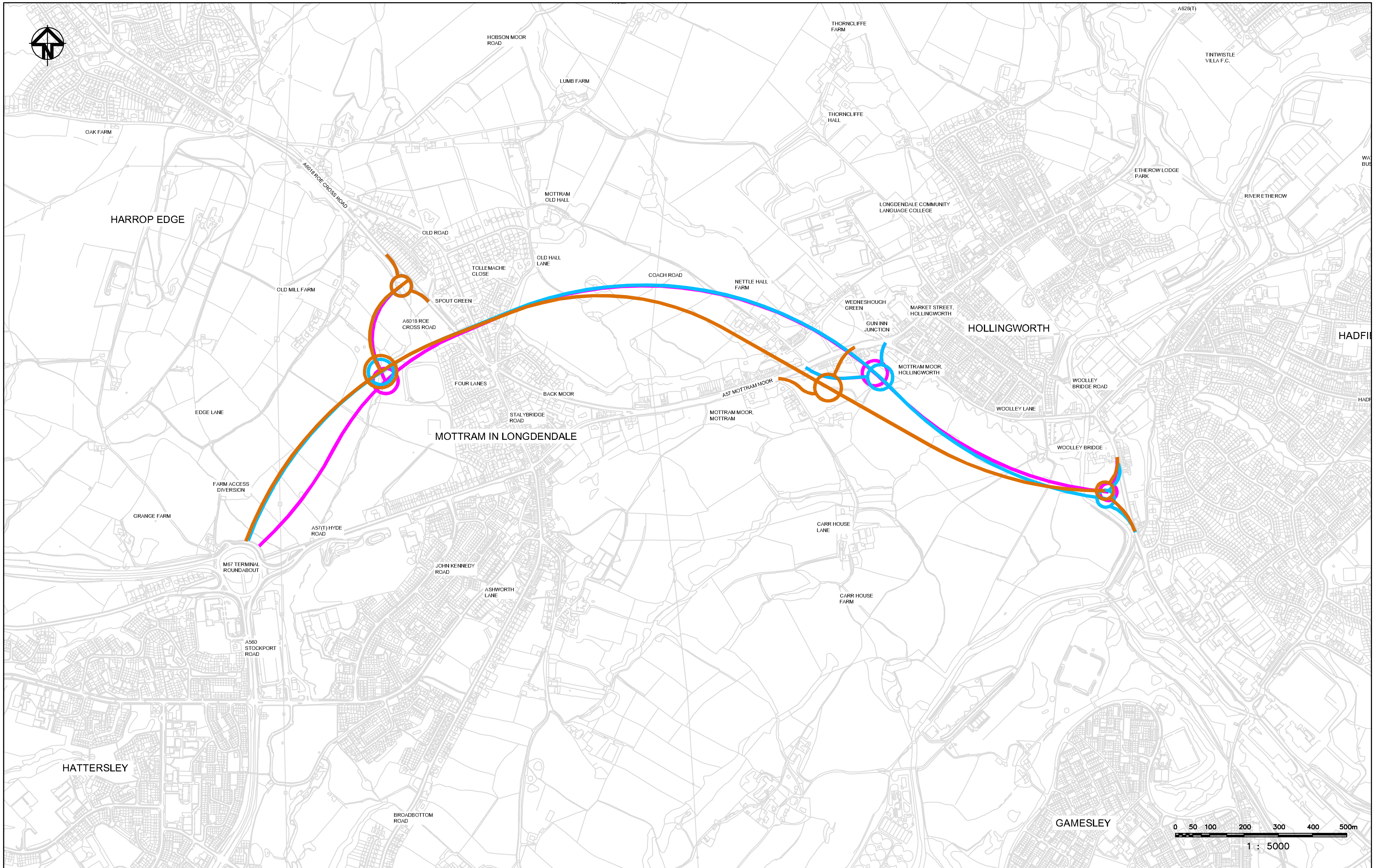
Drawing title: FIGURE 3.1 OPTIONS AT MOTTRAM MOOR

Status	CONCEPT
Revision	
Scale	1:5000
Date	10-08-2015
Drawn By	N.Clements
Checked By	C.Burgham-Malin
Approved By	N.Westwood
Project No.	UA008848
HE PIN / Originator	
Original Size	A3
Drawing number	HE551473-ARC-HGN-A57-DR-LE-3090
Revision	P01

100mm on Original

Print Date: 2017-11-02 15:47:16

File Path: C:\Users\msa77862\AppData\Local\Packages\Microsoft.MicrosoftEdge_8wekyb3d8bbwe\TempState\Downloads\HE551473-ARC-HGN-A57-DR-LE-3090 - Options at Mottram Moor.dwg



Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Appv'd

Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5th Floor, 401 Faraday Street, Birchwood, Warrington, WA3 6GA, Tel: 44 (0)1925 800700

Project: TRANS-PENNINE UPGRADE PROGRAMME

Drawing title: FIGURE 3.2 OPTIONS AT GUN INN

Status	CONCEPT
Revision	
Scale	1:5000
Date	10-08-2015
Drawn By	N.Clements
Checked By	C.Burgham-Malin
Approved By	N.Westwood
Project No.	UA008848
HE PIN / Originator	
Original Size	A3
Drawing number (Volume / Location / Type / Role / Number)	HE551473-ARC-HGN-A57-DR-LE-3091
Revision	P01

100mm on Original

Print Date: 2017-11-02 15:50:14

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Blue Route
Brown Route
Red Route

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Apprv'd

Client: highways england

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Registered office: Arcadis House 34 York Way London N1 9AB

Coordinating office: 5th Floor, 401 Faraday Street Birchwood Warrington, WA3 6GA Tel: 44 (0)1925 800700

Project: TRANS-PENNINE UPGRADE PROGRAMME

Drawing title: FIGURE 3.3 EXTENDED BRIEF OPTIONS

Status	CONCEPT
Revision	
Scale	1:10000
Date	10-08-2015
Drawn By	N.Clements
Checked By	C.Burgham-Malin
Approved By	N.Westwood
Project No.	UA008848
HE PIN / Originator	
Original Size	A3
Drawing number	HE551473-ARC-HGN-A57-DR-LE-3092
Volume / Location / Type / Role / Number	P01

100mm on Original

Print Date: 2017-11-02 15:51:30

File Path: C:\Users\msa77862\AppData\Local\Packages\Microsoft.MicrosoftEdge_8wekyb3d8bbwe\TempState\Downloads\HE551473-ARC-HGN-A57-DR-LE-3092 - Extended Brief Options.dwg

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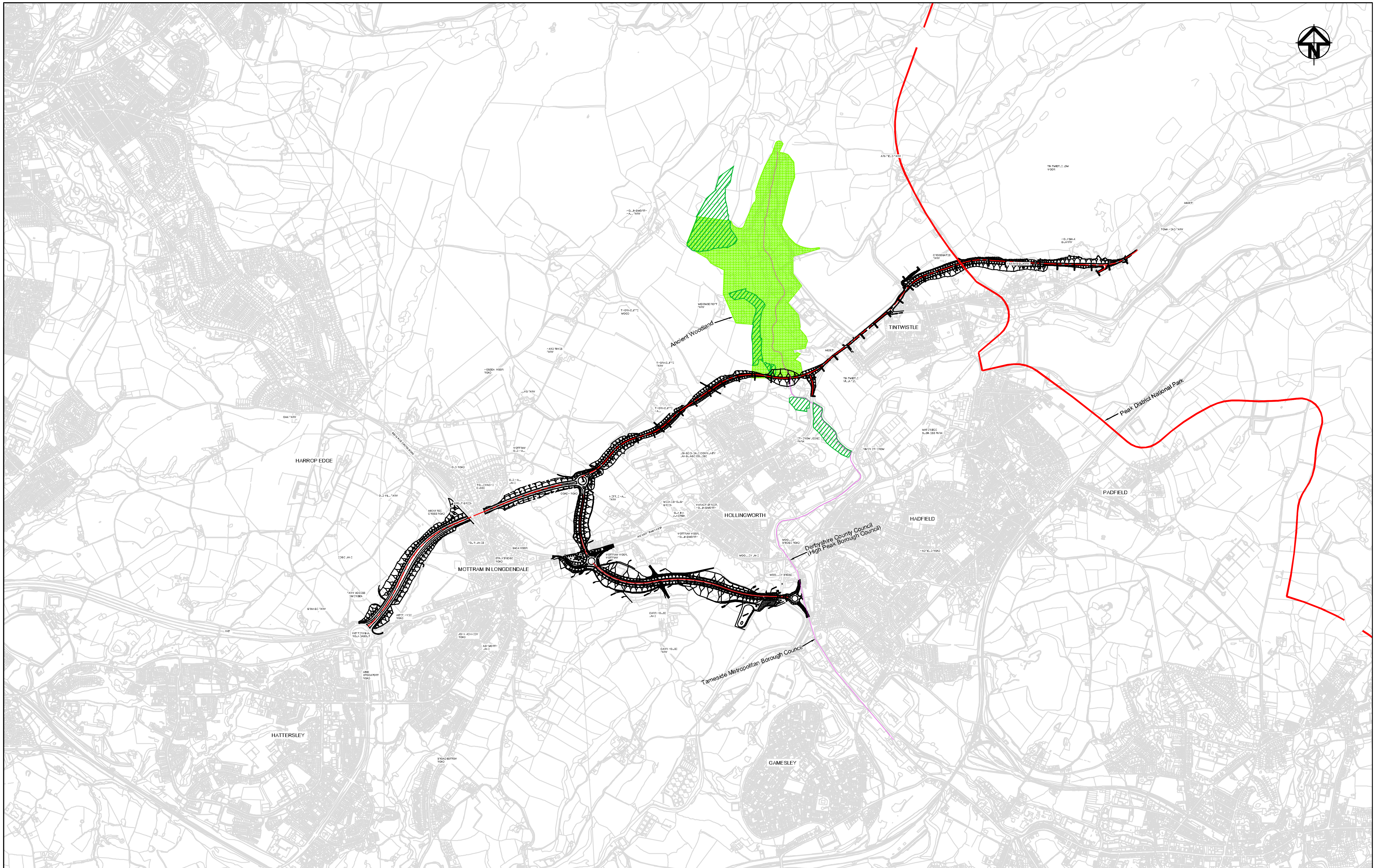

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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Appv'd

Client: highways england

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Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5th Floor, 401 Faraday Street, Birchwood, Warrington, WA3 6GA, Tel: 44 (0)1925 800700

Project: TRANS-PENNINE UPGRADE PROGRAMME

Drawing title:

FIGURE 3.4
DFT - LOW COST OPTION 1 WITH A57 LINK (GLOSSOP SPUR) GENERAL ARRANGEMENT

Status	CONCEPT	Revision	
Scale	1:10000	Date -	18-02-2016
Drawn By	N.Clements		
Checked By	C.Burgham-Malin		
Approved By	N.Westwood		
Project No. UA008848	HE PIN / Originator	Original Size	A3
Drawing number	Volume / Location / Type / Role / Number: HE551473-ARC-HGN-A57-DR-LE-3093		01

100mm on Original

Print Date: 2017-11-02 15:52:59

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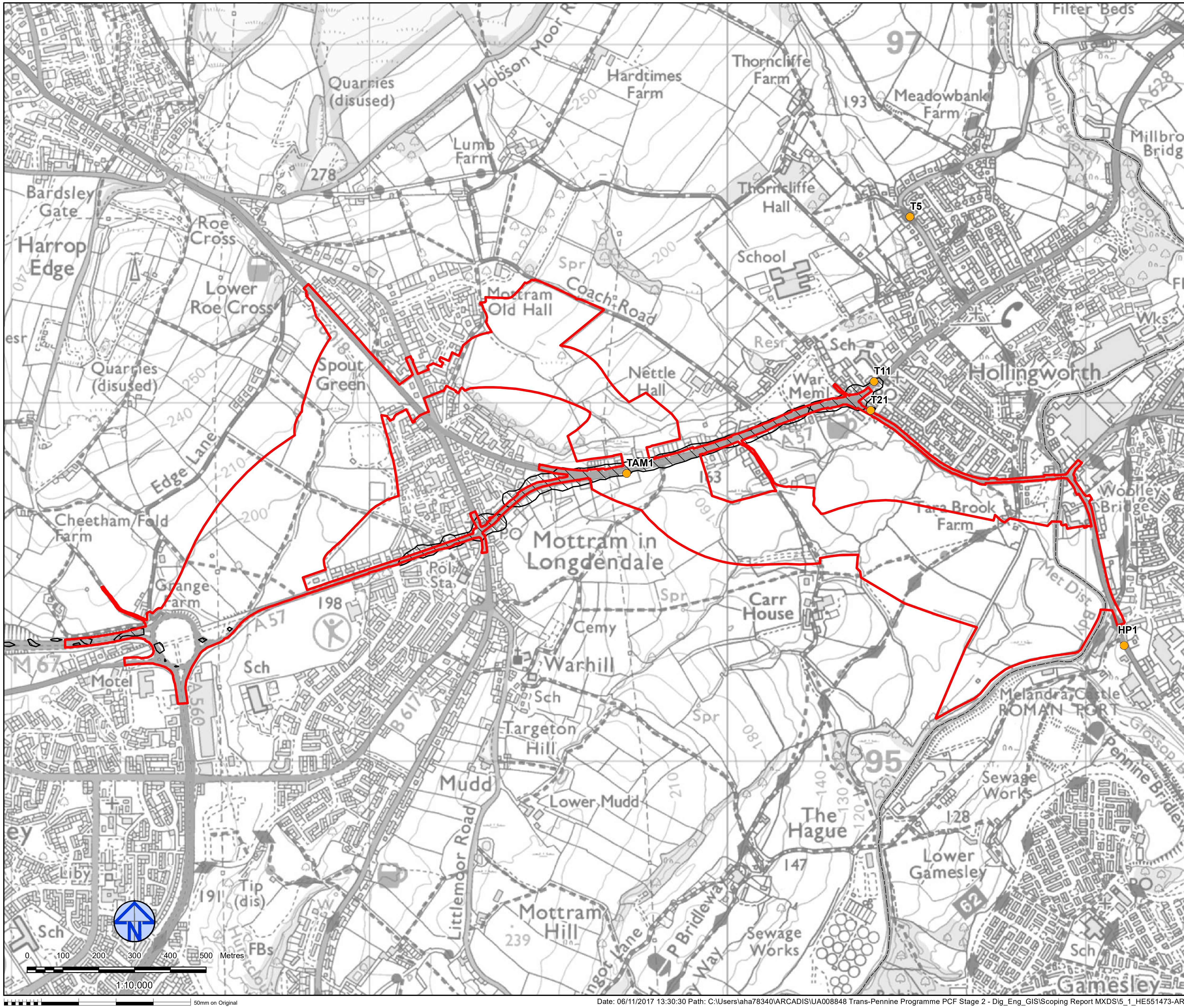


Legend
Monitoring Locations
Red Line Boundary
Local Authority Boundary
Air Quality Management Area
T5
T11
T21
TAM1
HP1
Mottram in Longdendale
Hollingworth
Mottram Old Hall
Coach Road
Nettle Hall
Spout Green
Harrop Edge
Bardsley Gate
Roe Cross
Lower Roe Cross
Quarries (disused)
Hobson Moor Rd
Hardtimes Farm
Thorncliffe Farm
Thorncliffe Hall
Meadowbank Farm
Lumb Farm
School
War Meml
Cheetham Fold Farm
Grange Farm
Edge Lane
A57
M67
Motel
A560
B6174
Warhill
Cemy
Carr House
Tara Brook Farm
Woolley Bridge
Melandra Castle ROMAN FORT
Targeton Hill
Mudd
Lower Mudd
Littlemoor Road
Mottram Hill
The Hague
Lower Gamesley
Gamesley
Sewage Works
Filter Beds
Millbrook Bridge
A628
Met Dist Bdy
0 100 200 300 400 500 Metres
1:10,000
50mm on Original

01	Draft	06/11/17
Issue	Description	Date

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:10,000	Current Issue Signatures
		Drawn R.MILLMAN
Original Size	A3	Checked M.MUTALE
Height Datum	NEWLYN	Approved A.SAUNDERS
Projection	O.S	© Copyright reserved

Client: highways england

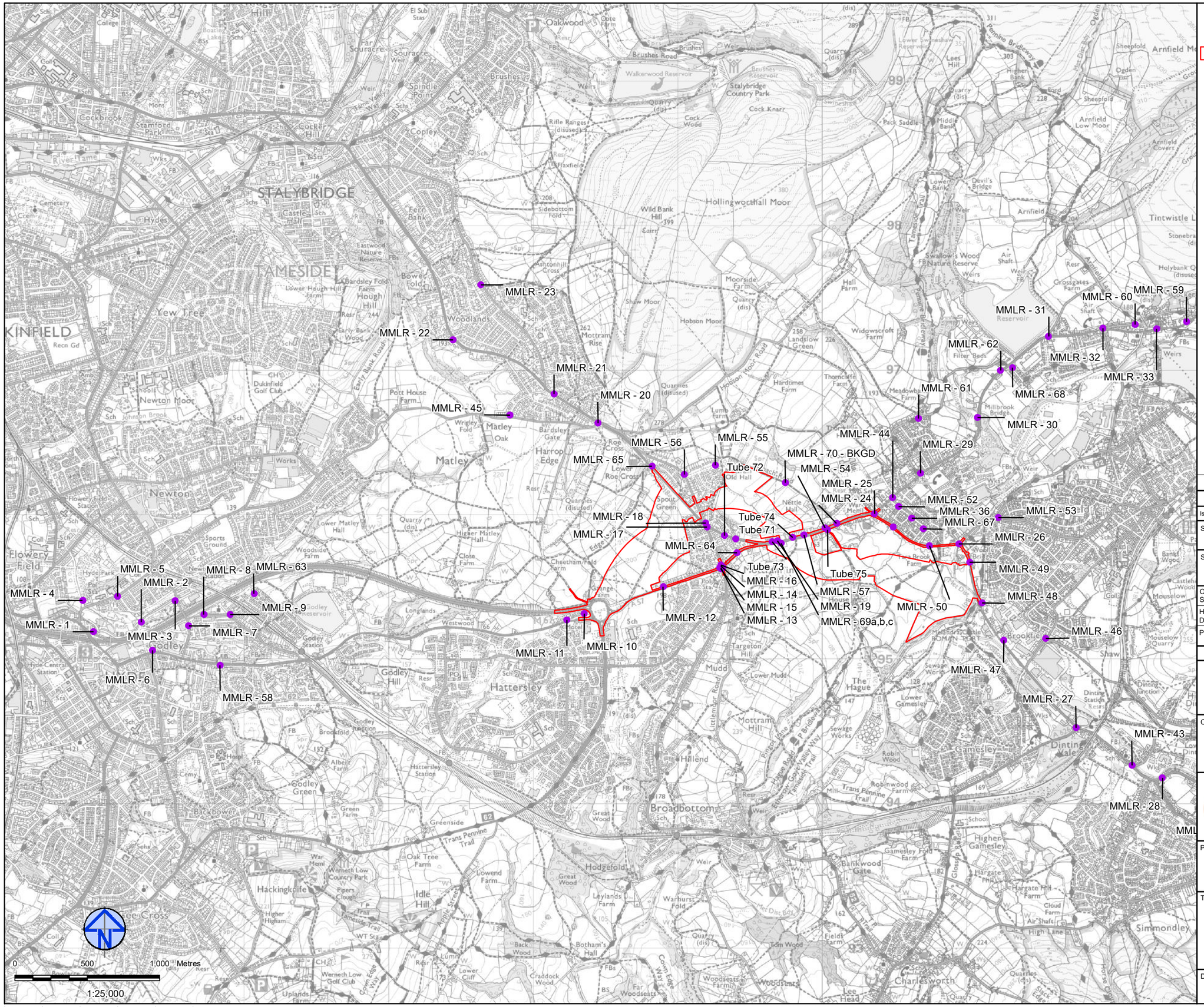
ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.1 AQMA AND LOCAL AUTHORITY MONITORING LOCATIONS MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD

Drawing No. HE551473-ARC-HGN-A57-DR-LE-3071

Date: 06/11/2017 13:30:30 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_1_HE551473-ARC-HGN-A57-DR-LE-3071_AQMA and Monitoring Locations.mxd



Legend

- Highways England Monitoring Tube
- Red Line Boundary

Issue	Description	Date
01	Draft	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:25,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
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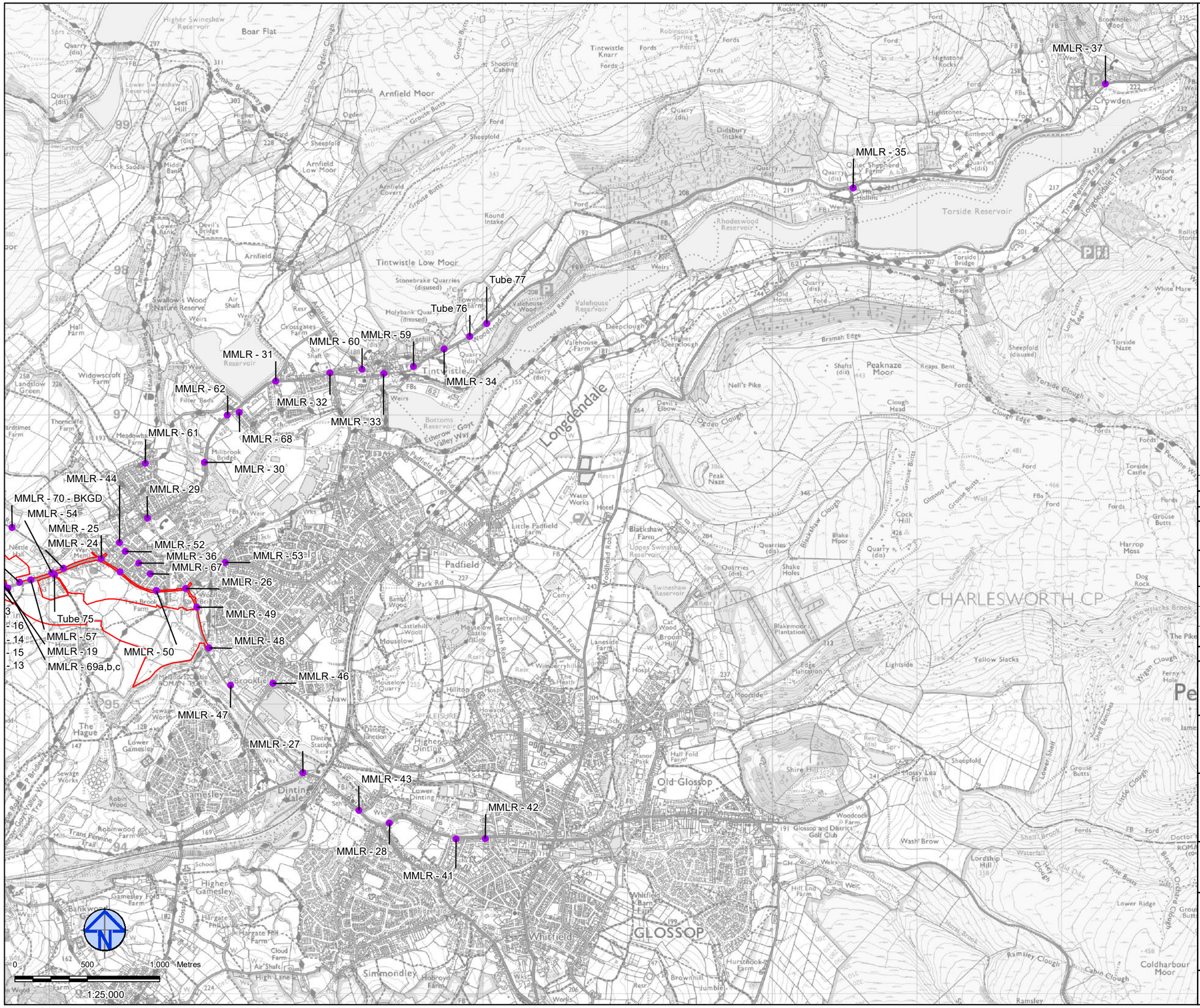
Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.2 HIGHWAYS ENGLAND MONITORING TUBE LOCATIONS MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD SHEET 1 of 2

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3072



Legend

- Highways England Monitoring Tube
- Red Line Boundary

Issue	Description	Date
01	Draft	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:25,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
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Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.2 HIGHWAYS ENGLAND MONITORING TUBE LOCATIONS MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD SHEET 2 of 2

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3072

50mm on Original

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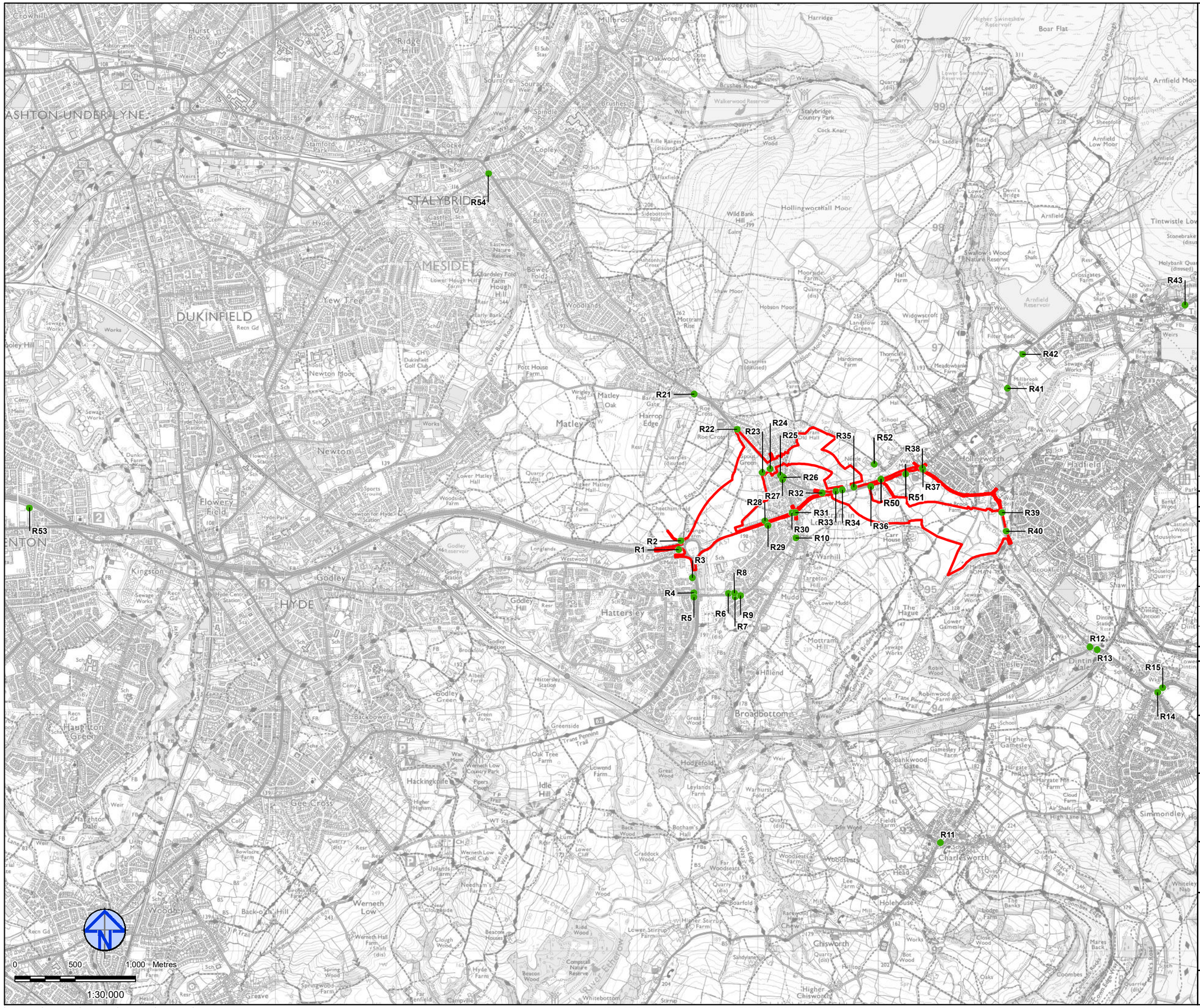


Legend

- Sensitive Receptors
- Red Line Boundary

Issue	Description	Date
01	DRAFT	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:30,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
Projection	O.S		

Client: highways england

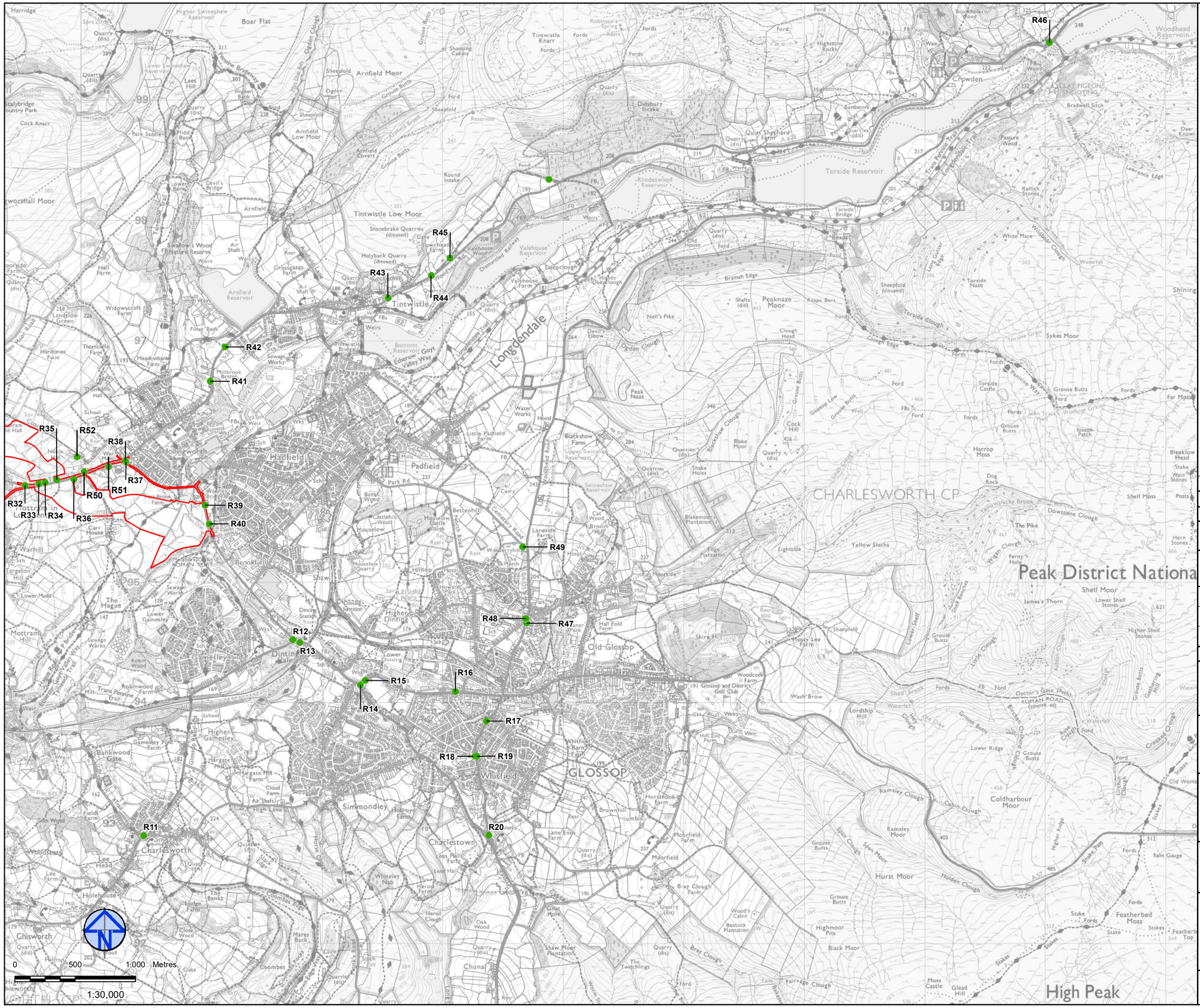
ARCADIS — Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.3 SENSITIVE RECEPTOR LOCATIONS MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD SHEET 1 OF 2

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3073

Date: 07/11/2017 08:51:47 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_3_HE551473-ARC-HGN-A57-DR-LE-3073_Sensitive Receptor Locations-Sheet_1.mxd



Legend

- Sensitive Receptors
- Red Line Boundary

Issue	Description	Date
01	DRAFT	06/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:30,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
Projection	O.S		

Client: highways england

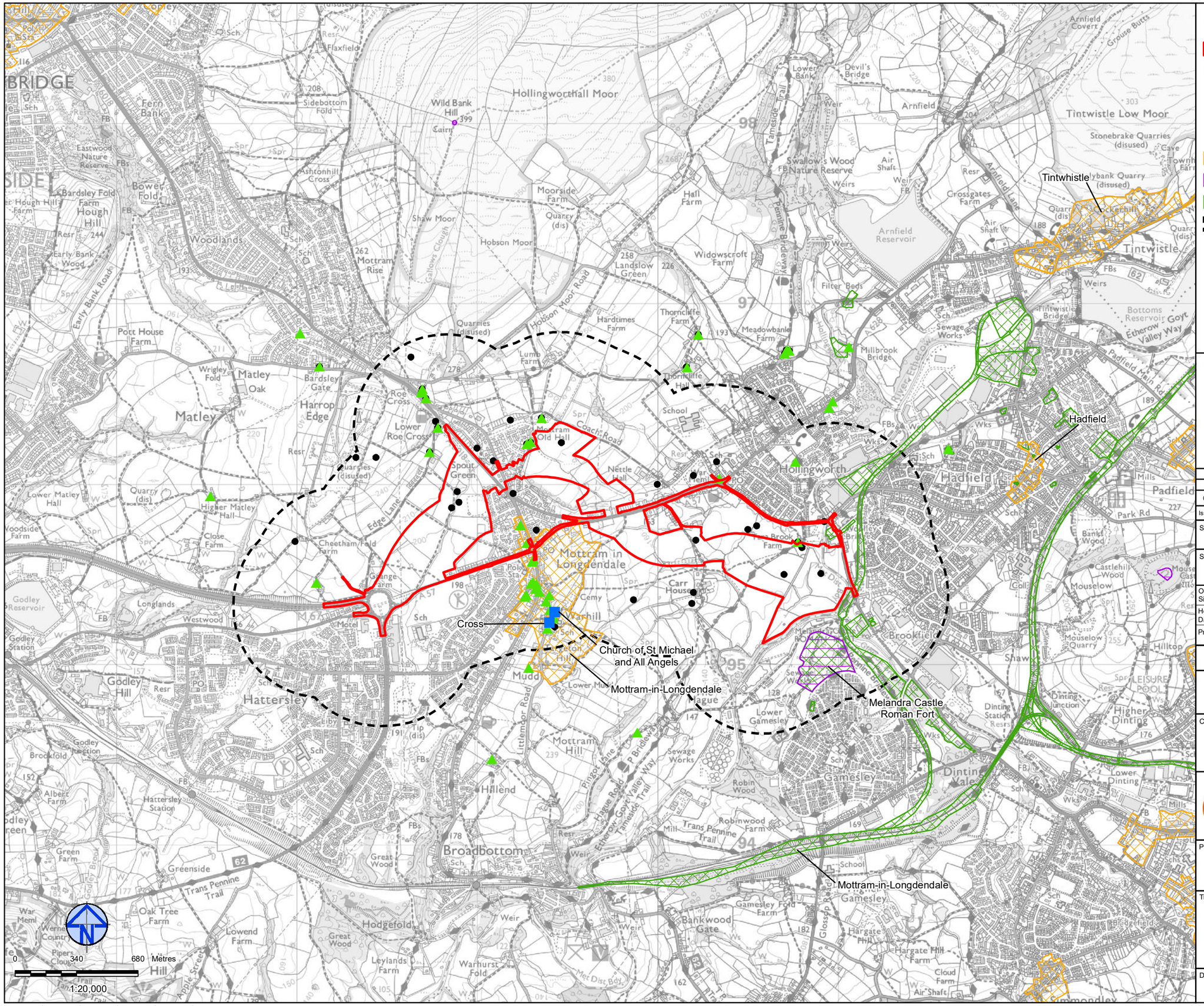
ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.3 SENSITIVE RECEPTOR LOCATIONS MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD SHEET 2 OF 2

Drawing No. HE551473-ARC-HGN-A57-DR-LE-3073

Date: 06/11/2017 13:34:24 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_3_HE551473-ARC-HGN-A57-DR-LE-3073_Sensitive Receptor Locations-Sheet_2.mxd



Legend

- Red Line Boundary

Listed Building

- Grade II*
- Grade II
- Non-Designated Heritage Asset
- Conservation Areas
- Scheduled Monument
- Non-Designated Heritage Asset
- Study Area Boundary - 500m

Issue	Description	Date
01	DRAFT	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

		Current Issue Signatures	
Scale	1:20,000	Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
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Client: highways england

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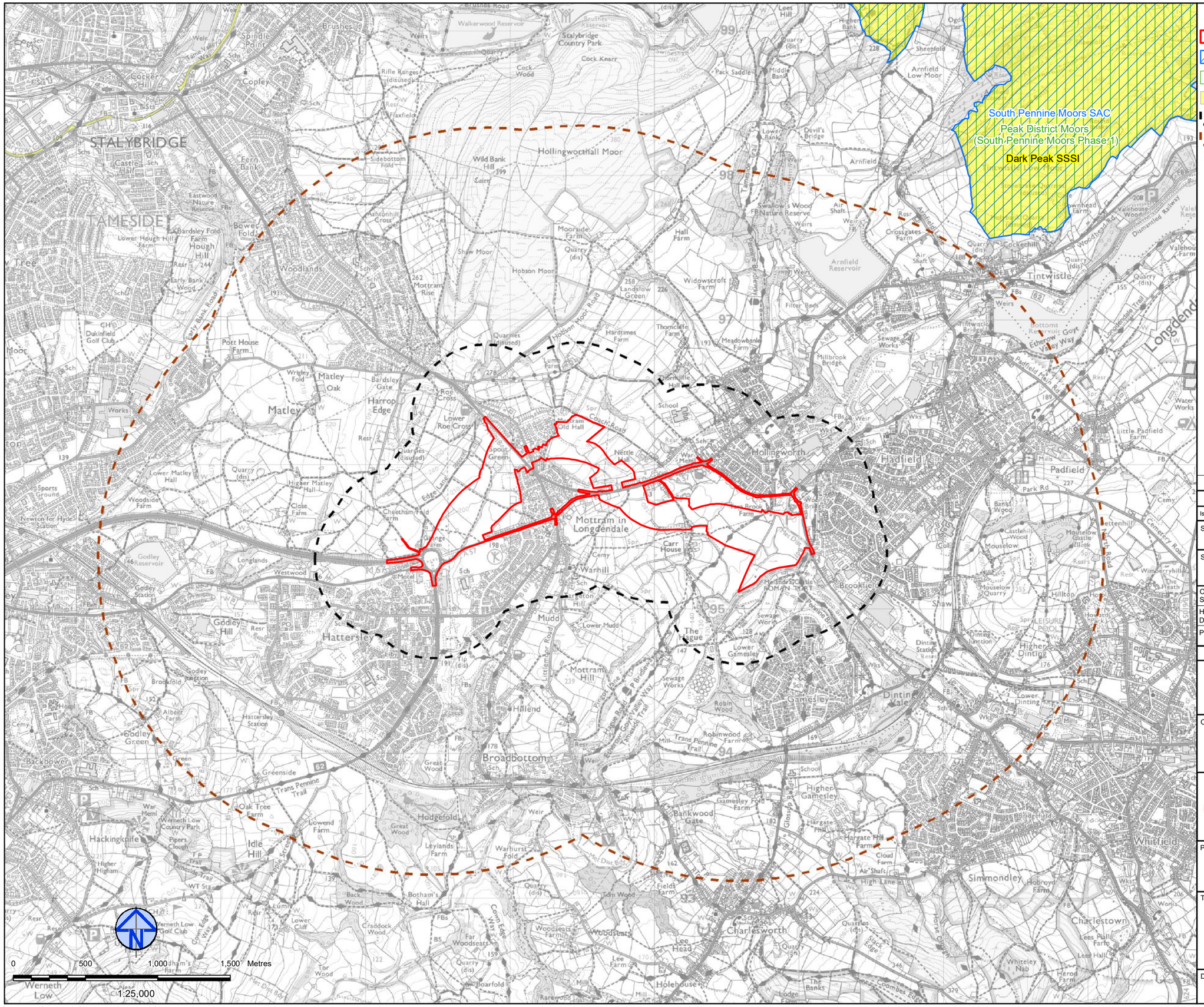
Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.4 MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD HERITAGE ASSET PLAN

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3074

50mm on Original

Date: 07/11/2017 14:06:23 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_4_HE551473-ARC-HGN-A57-DR-LE-3074_Mottram_Moor_Link_Road_and_A57_Link_Road_Heritage_Asset_Plan.mxd



Legend

- Red Line Boundary
- Special Area of Conservation
- Special Protection Areas
- Site of Special Scientific Interest
- 500m Study Area
- 2km Study Area

Issue	Description	Date
01	Draft	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:25,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
Projection	O.S		

Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.5 STATUTORY DESIGNATED SITES FOR NATURE CONSERVATION

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3075

50mm on Original

Date: 07/11/2017 08:54:07 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_5_HE551473-ARC-HGN-A57-DR-LE-3075_Statutory Designated Sites for Nature Conservation.mxd

Legend

- Target Notes
- Broad-Leaved Tree
- Scattered Scrub
- Water
- Species-Poor Intact Hedge
- Species-Poor Defunct Hedge
- Dry Ditch
- Red Line Boundary
- 500m Buffer
- Broad-Leaved Semi-Natural Woodland
- Broad-Leaved Plantation
- Coniferous Plantation
- Mixed Plantation
- Dense Scrub
- Broad-Leaved Scattered Trees
- Unimproved Acid Grassland
- Semi-Improved Acid Grassland
- Unimproved Neutral Grassland
- Semi-Improved Neutral Grassland
- Improved Grassland
- Poor Semi-Improved Grassland
- Tall Ruderal
- Dry Heath/Acid Grassland Mosaic
- Water
- Amenity Grassland

Issue	Description	Date
01	DRAFT	06/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:15,000	Current Issue Signatures	
		Drawn R.MILLMAN	
Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
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Client: highways england

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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.6 EXTENDED PHASE 1 HABITAT SURVEY: MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3076

0 500 1,000 Metres

1:15,000

50mm on Original

Date: 06/11/2017 13:45:37 Path: C:\Users\aha78340\ARCADIS\UA008848 Trans-Pennine Programme PCF Stage 2 - Dig_Eng_GIS\Scoping Report MXDS\5_6_HE551473-ARC-HGN-A57-DR-LE-3076_Phase_1_Habitat_Survey.mxd

UNAMED ANCIENT SEMI NATURAL WOODLAND

MILLBROOK BRIDGE WOOD

WESTBROOK CLOUGH

DINTING VALE WOOD

ROBIN WOOD

HURST CLOUGH LNR

0 400 800m

1 : 20 000

50mm on Original

Print Date: 2017-11-03 11:58:23

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NOTES:

Legend:

- RED LINE BOUNDARY
- STUDY AREA (1KM)
- LOCAL NATURE RESERVE
- PUBLIC RIGHT OF WAY (PRoW)
- LISTED BUILDINGS
- NATIONAL CYCLE ROUTE 62 - TRANS PENNINE TRAIL
- NATIONAL TRAIL
- CONSERVATION AREA
- ANCIENT WOODLAND
- NATIONAL PARK
- VIEWPOINT LOCATIONS

Rev	Date	Description	Drawn	Check	Approv
P2	03.11.17	SCOPING - RED LINE UPDATE	AC	RK	DH
P1	20.10.17	SCOPING ISSUE	AC	RK	DH

Client

HIGHWAYS ENGLAND

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

Site

Mottram Moor Link Road

Client

Highways England
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TITLE:

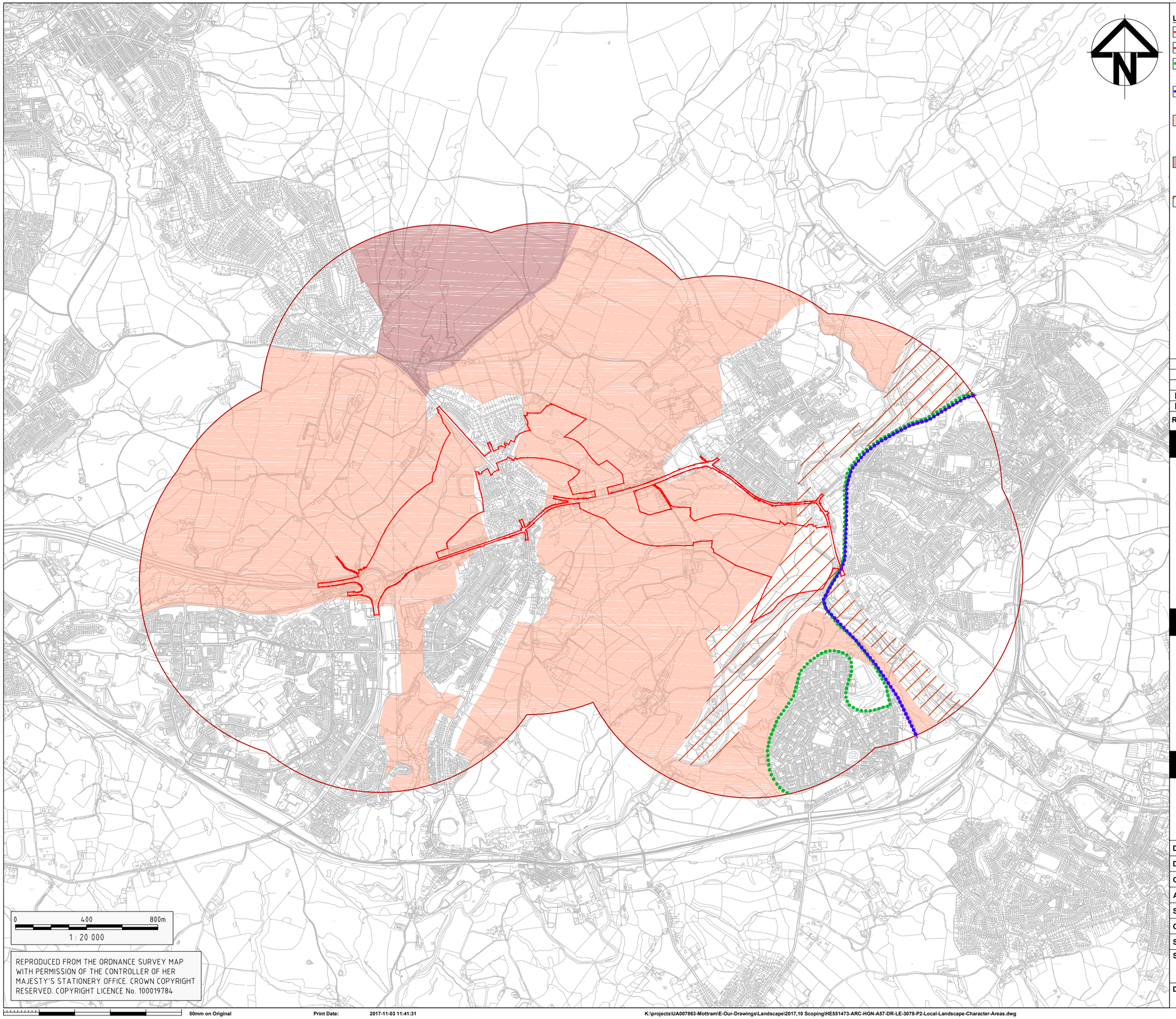
FIGURE 5.7 LANDSCAPE DESIGNATIONS, PUBLIC RIGHTS OF WAY, & VIEWPOINT LOCATIONS

Designed	A.CHESTER	Date 20OCT17	Signed
Drawn	J.NORMAN	Date 20OCT17	Signed
Checked	R.KITCH	Date 20OCT17	Signed
Approved	D.HOARE	Date 20OCT17	Signed
Scale:	1:20 000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

Suitability Description:
FOR INFORMATION

Drawing Number: HE551473-ARC-HGN-A57-DR-LE-3077

Revision: P2



Legend:

- RED LINE BOUNDARY
- STUDY AREA (1KM)
- NATIONAL CYCLE ROUTE 62 - TRANS PENNINE TRAIL
- NATIONAL TRIAL PENNINE BRIDLEWAY
- PEAK DISTRICT, DARK PEAK WESTERN FRINGE VALLEY PASTURES WITH INDUSTRY LCT
- PEAK DISTRICT, DARK PEAK & DARK PEAK WESTERN FRINGE MOORLAND SLOPES & CLOUGHS LCT
- PEAK DISTRICT, DARK PEAK WESTERN FRINGE, RIVERSIDE MEADOWS LCT

Rev	Date	Description	Drawn	Check	Approv
P2	03.11.17	SCOPING - RED LINE UPDATE	AC	RK	DH
P1	20.10.17	SCOPING ISSUE	AC	RK	DH

Client

HIGHWAYS ENGLAND

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

Site

Mottram Moor Link Road

Client

Highways England
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Tel: 44 (0)1925 800700

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TITLE:

FIGURE 5.8 LOCAL LANDSCAPE CHARACTER AREAS

Designed	A.CHESTER	Date 20OCT17	Signed
Drawn	J.NORMAN	Date 20OCT17	Signed
Checked	R.KITCH	Date 20OCT17	Signed
Approved	D.HOARE	Date 20OCT17	Signed
Scale:	1:20 000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

Suitability Description:

FOR INFORMATION

Drawing Number: HE551473-ARC-HGN-A57-DR-LE-3078

Revision: P2

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Print Date: 2017-11-03 11:41:31

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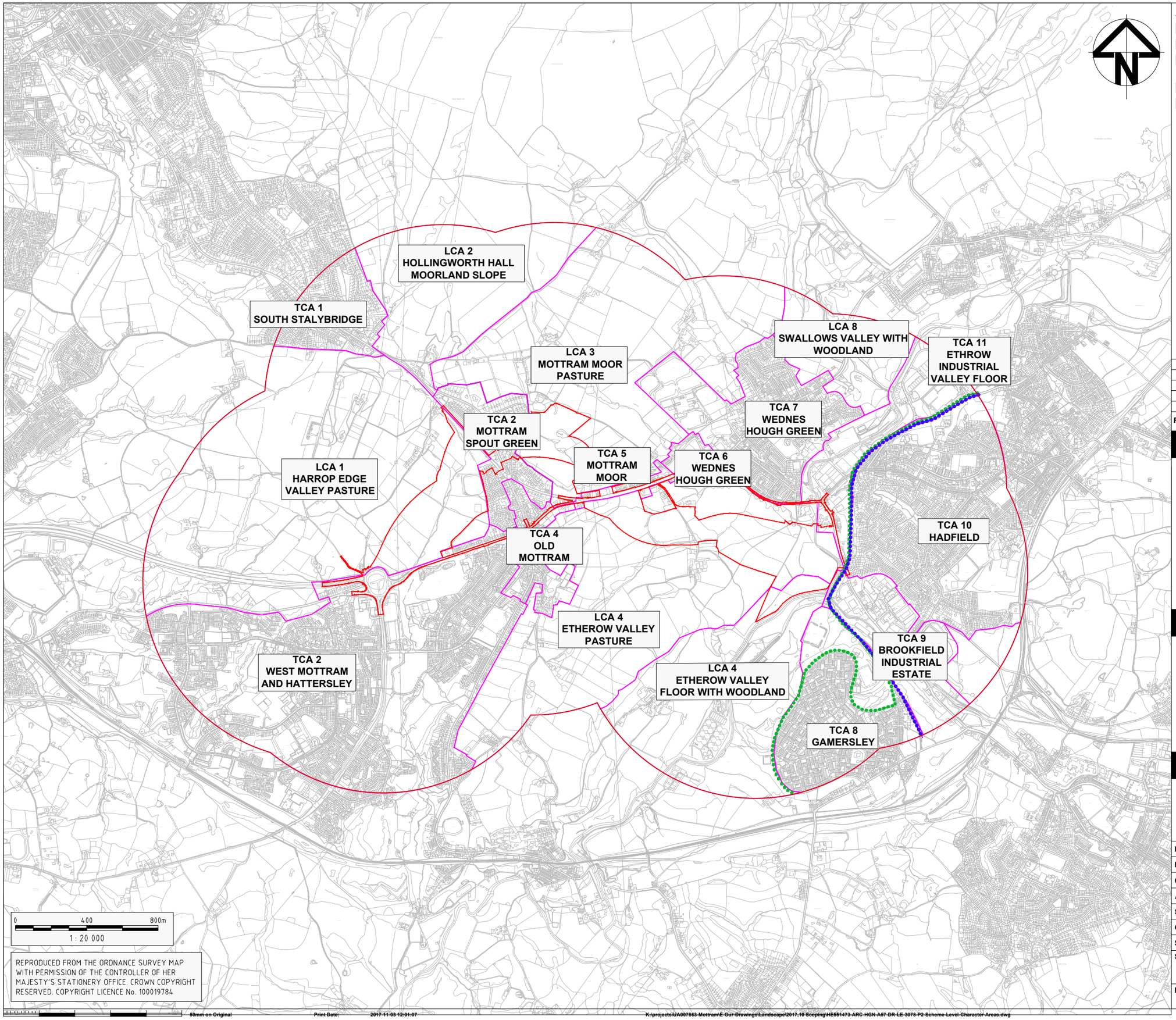

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Print Date: 2017-11-03 12:01:07

K:\projects\UA007863-Mottram\E-Our-Drawings\Landscape\2017,10 Scoping\HE551473-ARC-HGN-A57-DR-LE-3078-P2-Scheme-Level-Character-Areas.dwg

Legend:

- RED LINE BOUNDARY
- STUDY AREA (1KM)
- NATIONAL CYCLE ROUTE 62 - TRANS PENNINE TRAIL
- NATIONAL TRAIL PENNINE BRIDLEWAY
- SCHEME CHARACTER AREAS

Rev	Date	Description	Drawn	Check	Approv
P2	03.11.17	SCOPING - RED LINE UPDATE	AC	RK	DH
P1	20.10.17	SCOPING ISSUE	AC	RK	DH

Client

HIGHWAYS ENGLAND

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

Site

Mottram Moor Link Road

Client

Highways England
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Store Street
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Fax +44 (0)3 300 123 5000
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Tel: 44 (0)1925 800700

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TITLE:

FIGURE 5.9 SCHEME LEVEL LANDSCAPE CHARACTER AREAS

Designed	A.CHESTER	Date 20OCT17	Signed
Drawn	J.NORMAN	Date 20OCT17	Signed
Checked	R.KITCH	Date 20OCT17	Signed
Approved	D.HOARE	Date 20OCT17	Signed
Scale:	1:20 000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

Suitability Description:

FOR INFORMATION

Drawing Number: **HE551473-ARC-HGN-A57-DR-LE-3079**

Revision: **P2**

VIEWPOINT 1; 90 DEGREE VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM LOCAL PROW ON HARROP EDGE RD, LOOKING SOUTH EAST

90 DEGREES VIEW

VIEWPOINT 1; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM LOCAL PROW ON HARROP EDGE RD, LOOKING SOUTH EAST

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P1	20.10.17	ISSUED FOR SCOPING REPORT	AC	RK	DH

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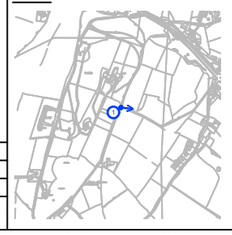

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Client

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Drawn	J.NORMAN	Date 20 OCT 17	Signed
Checked	R.KITCH	Date 20 OCT 17	Signed
Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 1
SHEET 1 OF 7

ARCADIS Design & Consultancy for natural and built assets

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Drawing Number: HE551473-ARC-HGN-A57-DR-LE-3080

Revision: P1

VIEWPOINT 2; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW PROW NEAR ST MICHAELS AND ALL ANGELS CHURCH

90 DEGREES VIEW

VIEWPOINT 2; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW PROW NEAR ST MICHAELS AND ALL ANGELS CHURCH

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Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 2
SHEET 2 OF 7

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VIEWPOINT 3; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, THE BYPASS (MOTTRAM), VIEW FROM THE A6018 MOTTRAM ROAD, LOOKING SOUTH WEST

90 DEGREES VIEW

VIEWPOINT 3; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, THE BYPASS (MOTTRAM), VIEW FROM THE A6018 MOTTRAM ROAD, LOOKING SOUTH WEST

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Checked	R.KITCH	Date 20 OCT 17	Signed
Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 3
SHEET 3 OF 7

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VIEWPOINT 4; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM A57, LOOKING NORTH EAST

90 DEGREES VIEW

VIEWPOINT 4; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM A57, LOOKING NORTH EAST

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Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 4
SHEET 4 OF 7

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VIEWPOINT 5; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM A57 MOTTRAM MOOR, LOOKING WEST

90 DEGREES VIEW

VIEWPOINT 5; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM A57 MOTTRAM MOOR, LOOKING WEST

Rev	Date	Description	Drawn	Check	Approv
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Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 5
SHEET 5 OF 7

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Revision: P1

VIEWPOINT 6; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM LOCAL PROW NEAR CARRHOUSE, LOOKING NORTH EAST

90 DEGREES VIEW

VIEWPOINT 6; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM LOCAL PROW NEAR CARRHOUSE, LOOKING NORTH EAST

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Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 6
SHEET 6 OF 7

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VIEWPOINT 7; 90 DEGREES VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM TRANS PENNINE TRAIL PROW, LOOKING NORTH WEST

90 DEGREES VIEW

VIEWPOINT 7; FULL PANORAMIC VIEW - MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD, VIEW FROM TRANS PENNINE TRAIL PROW, LOOKING NORTH WEST

Rev	Date	Description	Drawn	Check	Approv
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Approved	D.HOARE	Date 20 OCT 17	Signed
Scale:	NTS	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	UA008848

PROJECT:

MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

TITLE:

FIGURE 5.10
REPRESENTATIVE VIEWPOINT 7
SHEET 7 OF 7

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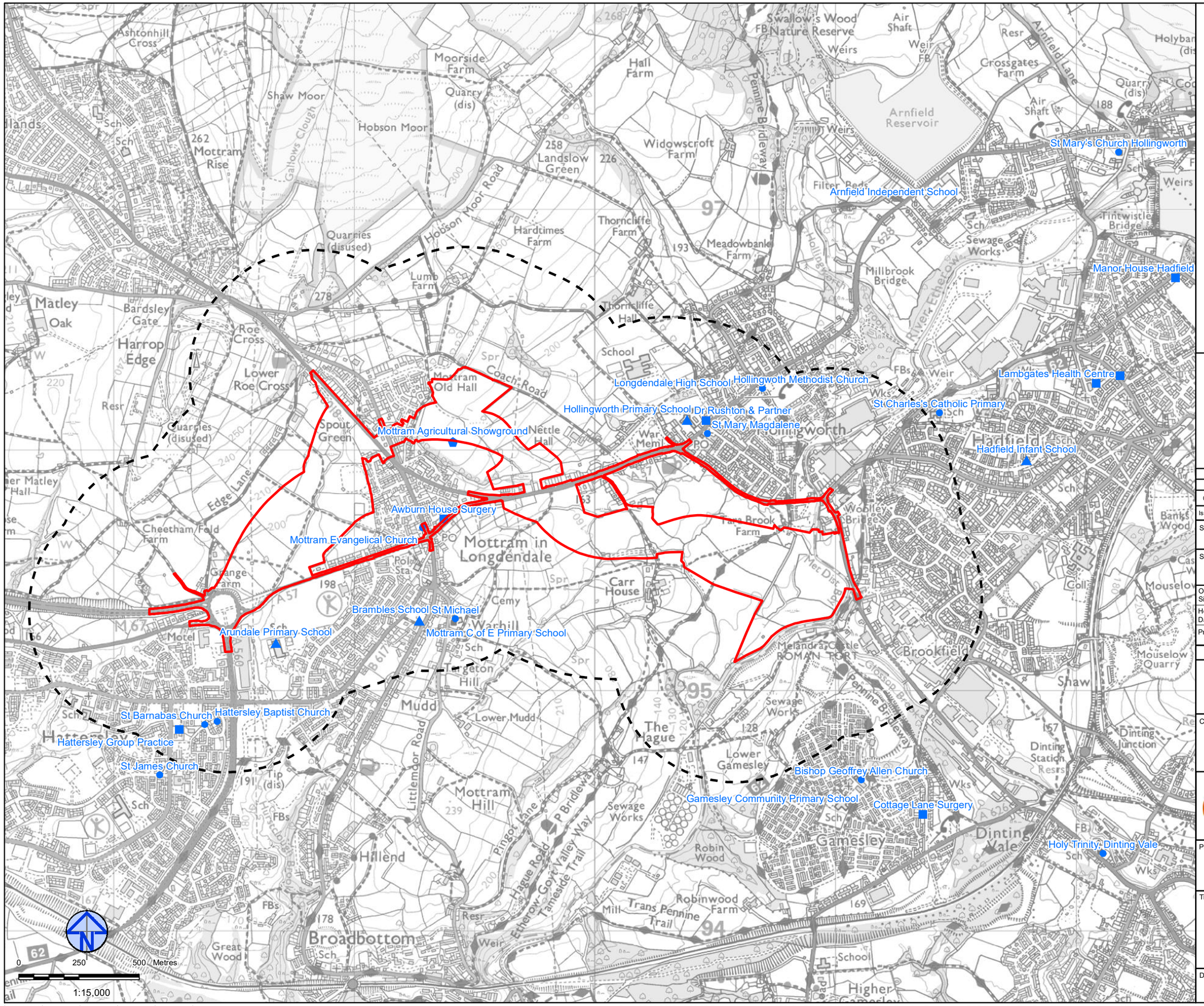
Revision: P1



Legend

- Red Line Boundary

COMMUNITY FACILITIES

- School
- Health Centre
- Church
- Other
- 500m Study Area

Issue	Description	Date
01	DRAFT	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:15,000	Current Issue Signatures	
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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.11 COMMUNITY FACILITIES AND COMMERCIAL ASSETS

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3081

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Legend

- Red Line Boundary
- Noise Action Planning Important Area
- 300m Study Area

Issue	Description	Date
01	Draft	06/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:12,500	Current Issue Signatures	
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Original Size	A3	Checked M.MUTALE	
Height Datum	NEWLYN	Approved A.SAUNDERS	
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Client: highways england

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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.12 NOISE IMPORTANT AREAS: MOTTRAM MOOR LINK ROAD AND A57(T) TO A57 LINK ROAD

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3082

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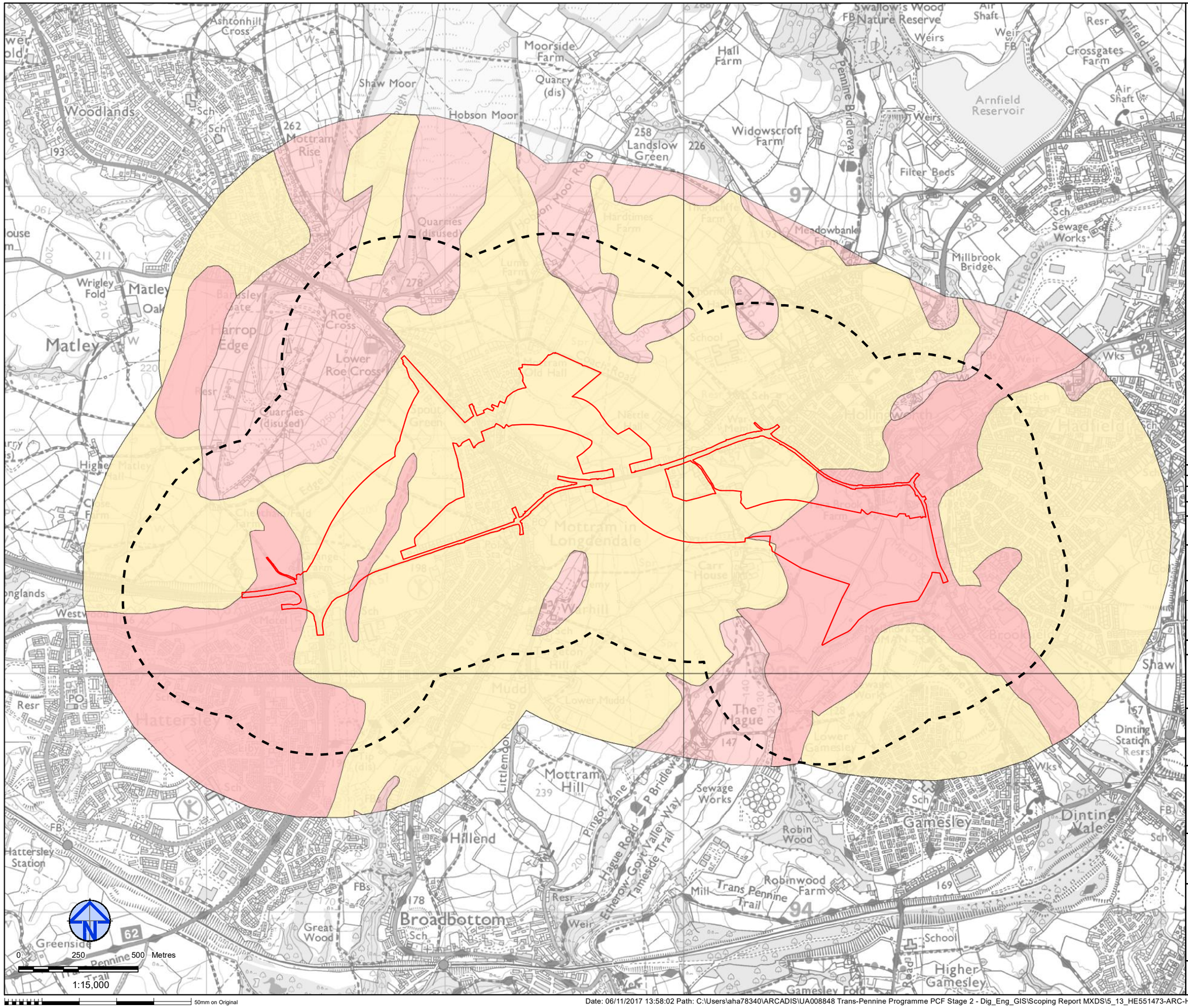

Legend

- Red Line Boundary
- 500m Study Area
- Secondary - A
- Secondary - Undifferentiated

Issue	Description	Date
01	DRAFT	26/10/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:15,000	Current Issue Signatures	
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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.13 BEDROCK AND SUPERFICIAL AQUIFERS

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3083

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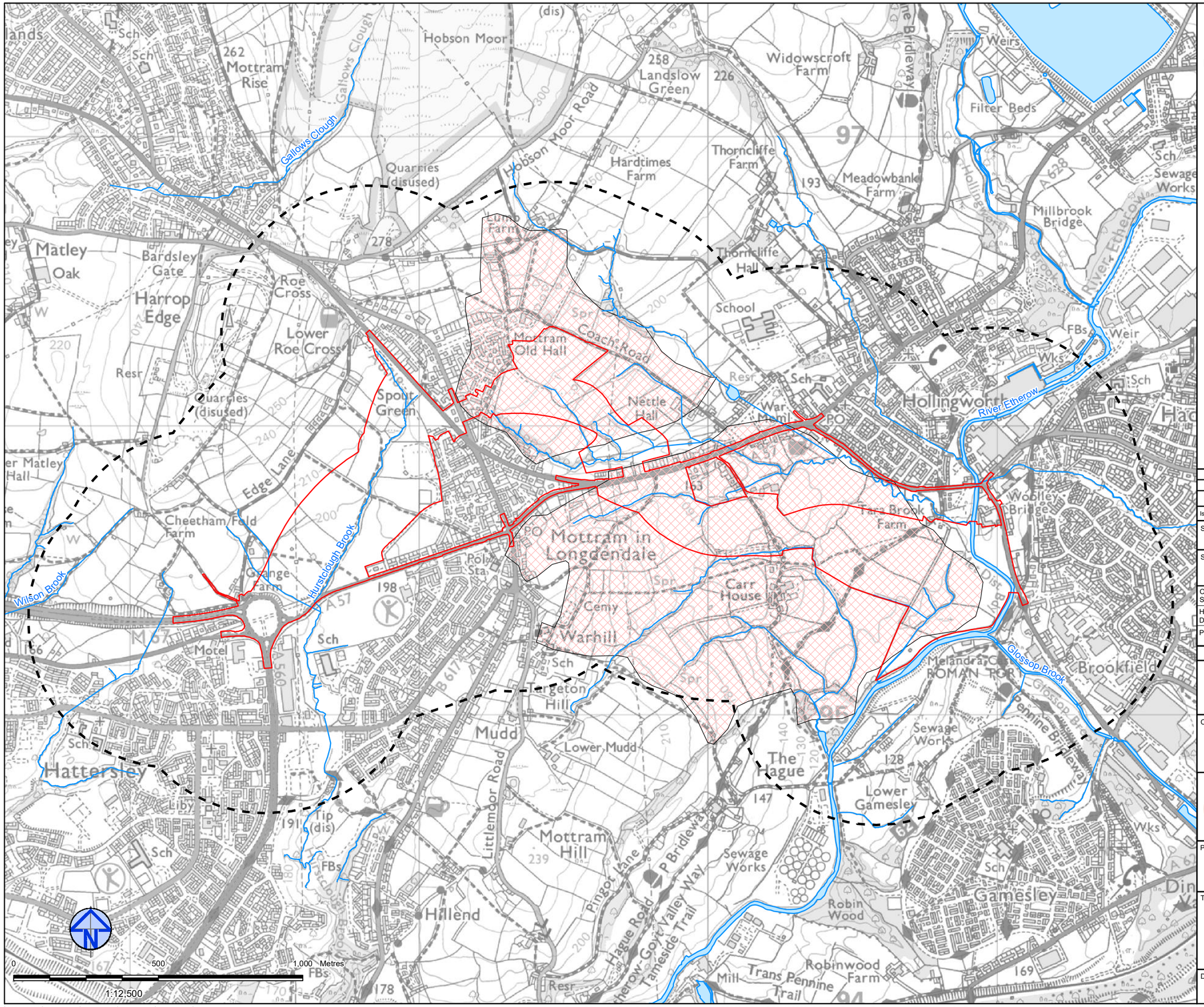

Legend

- Red Line Boundary
- 500m Study Area
- Surface Water
- River network
- Sinks and Issues

Issue	Description	Date
01	DRAFT	06/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:12,500	Current Issue Signatures	
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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.14 WATER FRAMEWORK DIRECTIVE SURFACE WATERBODIES

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3084

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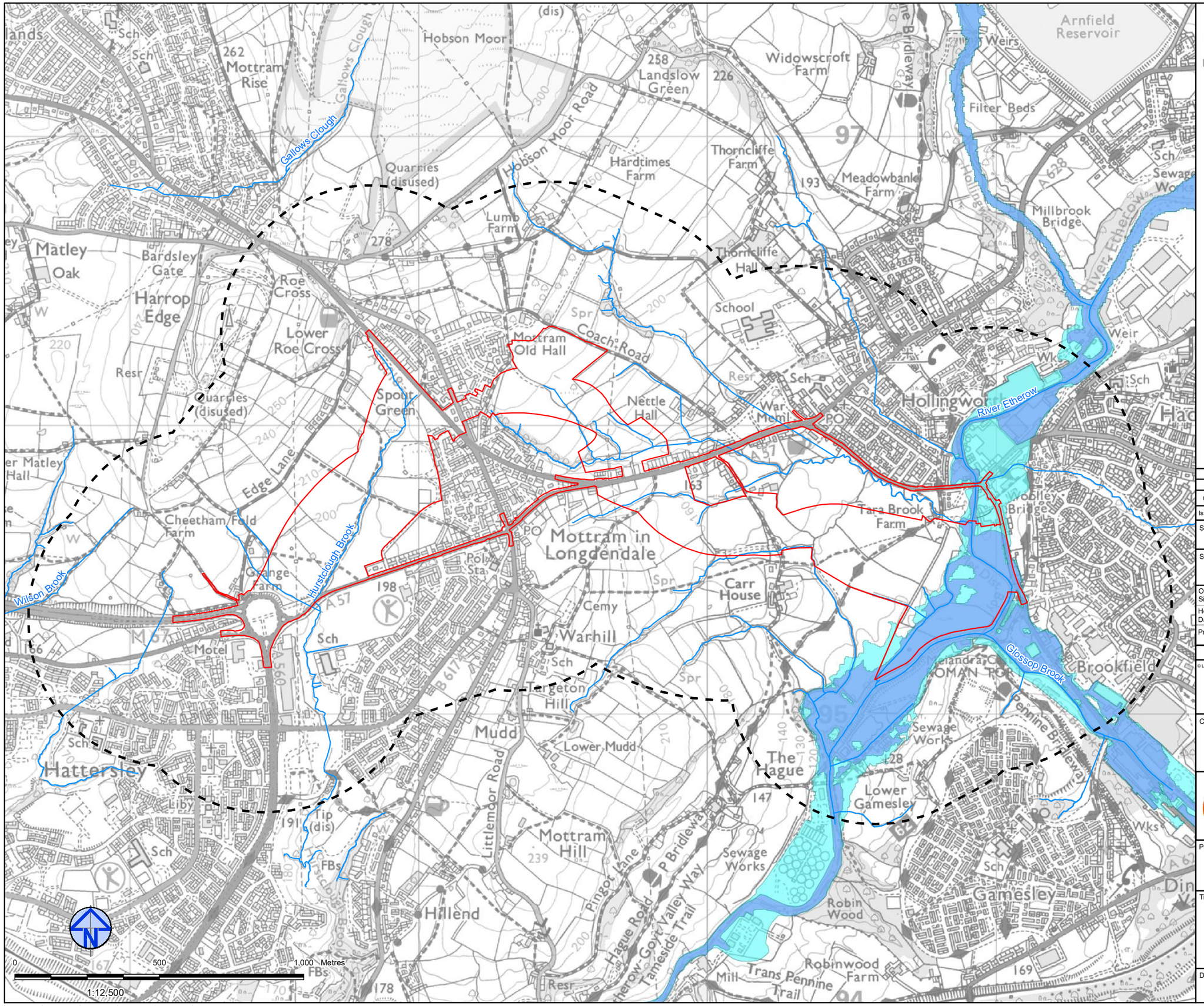

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Issue	Description	Date

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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.15 WATERBODIES AND FLOOD ZONES

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3085

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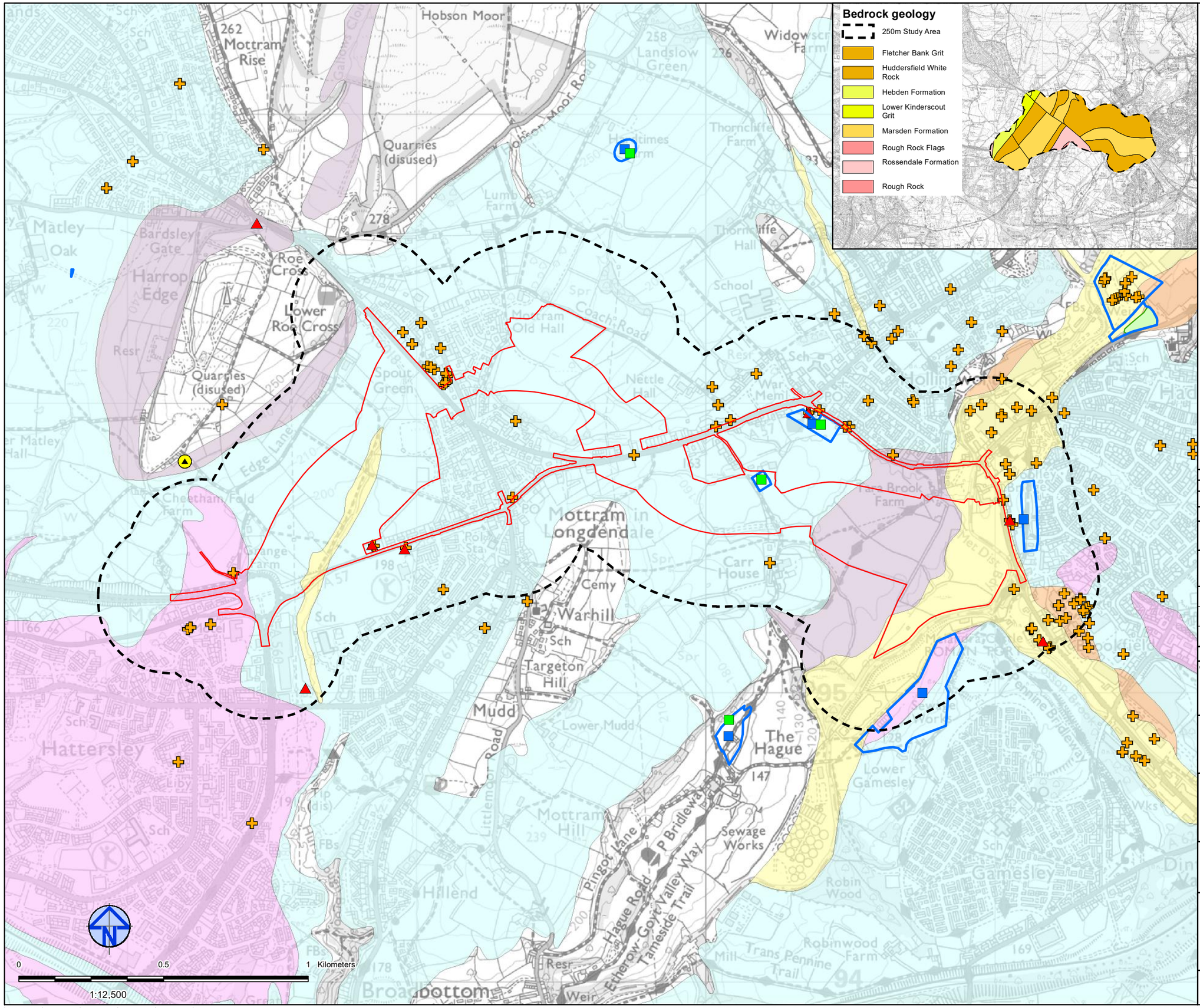

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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.16 ENVIRONMENTAL FEATURES ASSOCIATED WITH THE GEOLOGY AND SOIL

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3086

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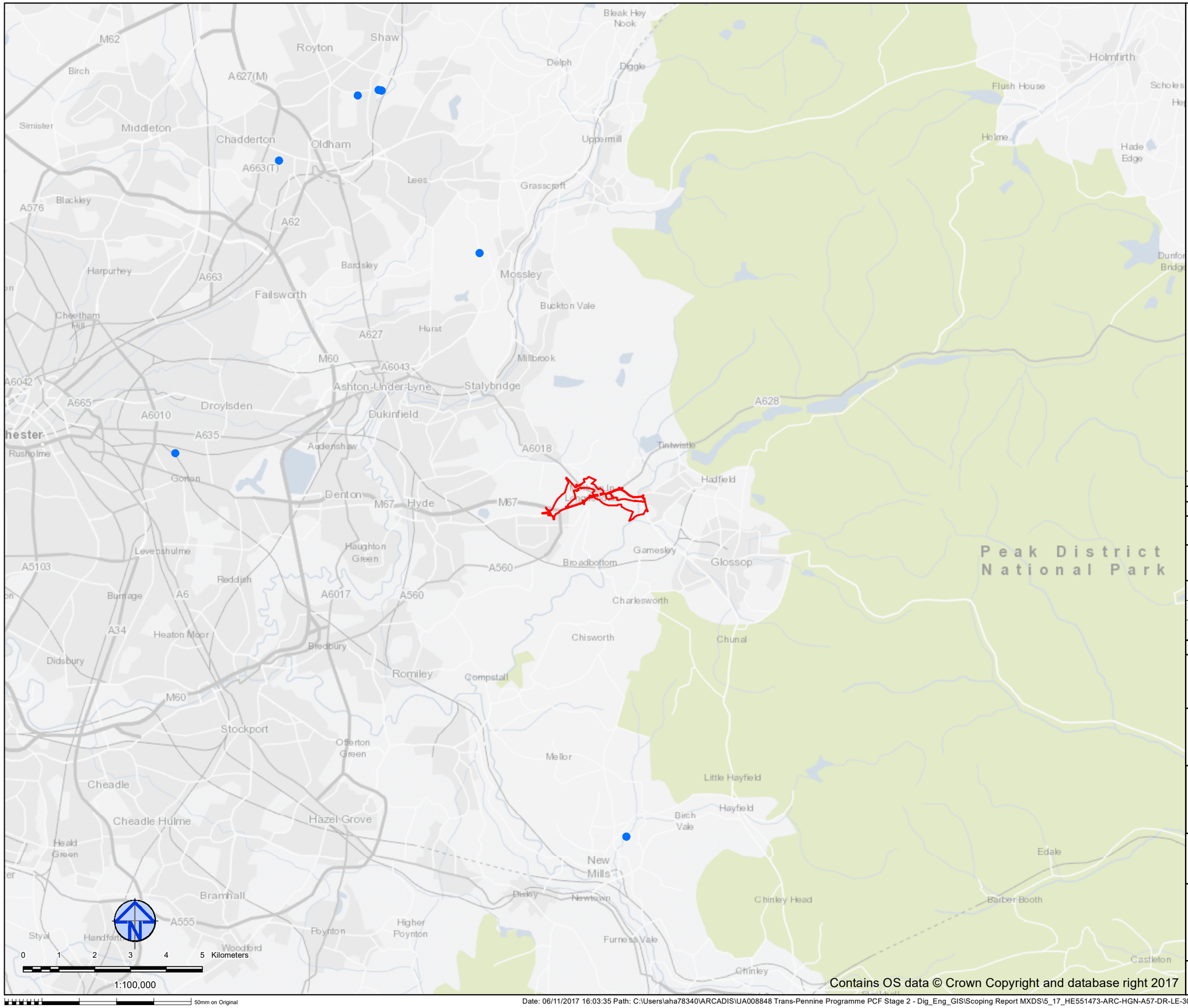

Legend

- Waste Management Facility
- Red Line Boundary

Issue	Description	Date
01	Draft	06/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:100,000	Current Issue Signatures	
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Client: highways england

ARCADIS Design & Consultancy for natural and built assets

Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 5.17 LOCATION OF LANDFILL AND WASTE MANAGEMENT FACILITIES MOTTRAM MOOR LINK ROAD AND A57 (T) TO A57 LINK ROAD

Drawing No. HE551473-ARC-HGN-A57-DR-LE-3087

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Legend

- Red Line Boundary

Cumulative Sites

- Approved
- Decision Pending
- LDP Housing Allocation Site

Issue	Description	Date
01	DRAFT	07/11/17

Status: PRELIMINARY/CONFIDENTIAL

Scale	1:20,000	Current Issue Signatures	
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Project: TRANS-PENNINE UPGRADE PROGRAMME

Title: FIGURE 6.1 CUMULATIVE DEVELOPMENTS

Drawing No.: HE551473-ARC-HGN-A57-DR-LE-3088

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The Planning Inspectorate
Yr Arolygiaeth Gynllunio

SCOPING OPINION:

Proposed Trans-Pennine Upgrade Programme

Case Reference: TR010034

Adopted by the Planning Inspectorate (on behalf of the Secretary of State for Communities and Local Government) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

December 2017

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CONTENTS

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1. INTRODUCTION

1.1 Background

1.1.1 On 08 November 2017, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Highways England (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Trans-Pennine Upgrade Programme (the Proposed Development).

1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion '*as to the scope, and level of detail, of the information to be provided in the environmental statement'.*

1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled "Trans-Pennine Upgrade Programme Environmental Impact Assessment Scoping Report" (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.

1.1.4 The Applicant's request for a Scoping Opinion was accompanied by a letter dated 8 November 2017 that notified the SoS under Regulation 8(1)(b) of the EIA Regulations that the Applicant proposes to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is determined to be EIA development.

1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:

(a) any information provided about the proposed development;

(b) the specific characteristics of the development;

(c) the likely significant effects of the development on the environment; and

(d) in the case of a subsequent application, the environmental statement submitted with the original application.

1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.

1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).

1.1.8 The matters addressed by the Applicant have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.

1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:

(a) a plan sufficient to identify the land;

(b) a description of the proposed development, including its location and technical capacity;

(c) an explanation of the likely significant effects of the development on the environment; and

(d) such other information or representations as the person making the request may wish to provide or make.

1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompass the relevant aspects identified in the EIA Regulations.

1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10, an ES accompanying an application for an order granting development consent should be based on *'the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)'*.

1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) subject to consultation with Natural England. This document must be co-ordinated with the EIA, to avoid duplication of information between assessments.

1.2 The Planning Inspectorate's Consultation

1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by

the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in undertaking the EIA.

1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.

1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in carrying out the EIA.

1.3 Article 50 of the Treaty on European Union

1.3.1 On 23 June 2016, the United Kingdom (UK) held a referendum and voted to leave the European Union (EU). On 29 March 2017 the Prime Minister triggered Article 50 of the Treaty on European Union, which commenced a two year period of negotiations regarding the UK's exit from the EU. There is no immediate change to legislation or policy affecting national infrastructure. Relevant EU Directives have been transposed into UK law and those are unchanged until amended by Parliament.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/resources.

2.2 Description of the Proposed Development

2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in the Scoping Report at section two.

2.2.2 The proposed development seeks to improve connectivity between Manchester and Sheffield by the creation of a new 1.8km dual carriageway bypass connecting the junction of the M67, A57(T) and A560 to the A57(T) Mottram Moor and a further new 1.3km single carriageway bypass connecting the A57(T) Mottram Moor to the A57 Woolley Bridge. Also included within the description of the Proposed Development is the creation of four new road junctions (Roe Cross Road Junction on Roe Cross Road, Cricket Ground Junction on the new bypass, Mottram Moor Junction on Mottram Moor and Brookfield Junction on Woolley Bridge). Four new structures are proposed; Old Hall Farm underpass, Mottram Tunnel, Carr House Farm underpass and River Etherow Bridge. A number of culverts will be required to carry an existing watercourse beneath the Proposed Development. No information is provided in relation to the scale and dimensions of these structures. A single main compound is proposed with three other locations along the route to be used for storage. There will also be a requirement for temporary access, temporary lay down, work areas and ancillary works.

2.2.3 The proposed application site is located between Manchester and Sheffield on the trunk route of the A57, A628, A616 and A61. The trunk route connects the M67 in the east of the Manchester City Region with the M1 in the north west of the Sheffield City Region. The proposed development is located within the administrative boundaries of Tameside Metropolitan Borough Council and High Peak Borough Council. A site location plan is provided at Figure 1.1 (Appendix B) of the Scoping Report and a plan showing the proposed new road alignment within the redline boundary is presented in Figure 1.2.

2.2.4 The Trans-Pennine Upgrade Programme measures announced in the Road Investment Strategy in 2015 included additional elements such as development of A628 climbing lanes and A61 dualling. The Scoping Report states that these elements have been 'postponed until a later date'.

2.2.5 The proposed application site comprises residential, industrial, recreational, open space, rural and urban fringe land uses including community facilities. Existing buildings, other land uses and environmental constraints are shown in figures 5.4 to 5.9 and 5.11 in Appendix B of the Scoping Report. Photomontages of the study area are shown in Figure 5.10 in Appendix B. To the east, the Proposed Development abuts the residential area of Hollingworth. The settlement of Mottram in Longdendale, part of which is a Conservation Area, is located in the centre of the study area. There are two Grade II* listed buildings, one Scheduled Monument (Melandra Castle Roman Fort) and a number of Listed Buildings within the study area.

2.2.6 No statutory designated sites for nature conservation have been identified within the footprint of the Proposed Development although Hurst Clough Local Nature Reserve (LNR) and Great Wood LNR are located within the 2km study area. Dark Peak Site of Special Scientific Interest (SSSI) is located 2.25 km north east of the scheme and is a component of the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) and the South Pennine Moors Special Area of Conservation (SAC).

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

2.3.1 The Scoping Report does not provide a description of the location of the Proposed Development, instead it provides a reference to Figure 1.1 in Appendix B of the Scoping Report which depicts on a plan the location of the Proposed Development. Figure 1.2 of the Scoping Report depicts the proposed new link road alignment within the application site redline boundary. The ES should contain a description of the location of the Proposed Development, which includes existing land uses, structures and receptors across the application site and surrounding area.

2.3.2 Section 2.4 of the Scoping Report provides a brief description of the main components of the Proposed Development. The anticipated size, detailed design and location of the proposed Mottram tunnel, River Etherow bridge, underpasses, culverts, road junctions and compounds is not provided in the Scoping Report, which limits the ability of the Inspectorate to comment on the appropriateness of the scope of the assessment in relation to these structures. Details of other components such as signage, gantries, lighting, utilities diversions and environmental mitigation measures are unspecified or are identified as components to be designed. The Applicant's attention is drawn to National Grid's comments regarding existing utilities transmission infrastructure.

2.3.3 Scoping Report paragraph 1.2.2 states that the Proposed Development is part of a wider suite of measures to improve the strategic road network in this location (eg A628 climbing lanes and A61 dualling). Where there is reasonable certainty of these schemes coming forward, the Applicant ensure that the ES accompanying the DCO gives due consideration to the potential cumulative impact of the wider scheme proposals.

2.3.4 Scoping Report paragraph 2.4.1 highlights that there will be one main construction compound, with a further three compounds to be used for storage. There are no further details provided, such as their location, size or the length of time they will be required. Figure 1.3 of Appendix B to the Scoping Report presents areas required for both permanent and temporary land take. Three areas are shown as being required for temporary land take, yet it is not clear whether the Applicant is seeking to use these areas for the locations of the construction compounds. The ES should include a description of all construction compounds and show the location of them on a plan. The ES should also assess any potential significant effects from the use of construction compounds within relevant aspect assessments.

2.3.5 The Scoping Report identifies that a number of culverts will be required, but no further details are provided. The Scoping Report identifies that attenuation ponds will be used to reduce flow into existing watercourses. No further details are provided. The ES should describe in detail the culverts and attenuation ponds required together with their locations, these features should also be depicted on plans to aid the reader. the Applicant should ensure that culvert and bridge designs give appropriate consideration to the need for animal passes (see section 4.3 of this opinion for further detail).

2.3.6 The Scoping Report states that the requirement for lighting for the road is currently being developed. Given the proximity of the Proposed Development to the Peak District National Park, if the Applicant decides that lighting is required the ES should assess any associated lighting impacts (eg light spill) as part of relevant aspect assessments. This is discussed further in section 4.4 of this report. Furthermore, the ES should also explain the need for lighting if it is required during the construction phase and in particular any lighting at construction compounds. Impacts associated with lighting proposals should be assessed in the ES with evidence how this has been taken into account in relevant aspect chapters.

2.3.7 Paragraph 2.4.13 states that a number of mounds are proposed either side of the route to enhance the level of environmental screening. No further details are provided such as the height or location and total number of mounds required. The ES should describe and depict the locations where earth mounds will be sited as well as their dimensions, taking into account existing ground levels.

2.3.8 Road and lane closures are highlighted as being required in section 2.4 of the Scoping Report. The ES should contain a full explanation of all required road closures and diversions whether permanent or temporary and their impacts should be fully assessed. The Applicant should consult with the Royal Mail regarding the proposed traffic management measures.

2.3.9 Paragraph 2.4.3 states that "a number of properties would need to be demolished in the vicinity of the Mottram Tunnel". As with the description of structures, no further details are provided. As part of the description of

the physical characteristics of the Proposed Development, the ES should describe the demolition proposals.

2.3.10 Construction of the Proposed Development is anticipated to last approximately 3 years and is anticipated to commence from March 2020. The ES should provide details regarding proposed working hours, including for Sundays and bank holidays.

Alternatives

2.3.11 The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.

2.3.12 The Inspectorate would expect to see a discrete section in the ES that provides details of the alternatives considered and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

2.3.13 The alternatives discussion within the ES should expand on the information provided in Scoping Report section 3 Assessment of Alternatives, including the detail of the options selection process. In view of the fact that the preferred option will involve the acquisition and demolition of residential properties it is important that the balance of costs and effects for the different options are clearly explained in the ES.

Flexibility

2.3.14 The Applicant's attention is drawn to the Inspectorate's Advice Note 9 'Using the 'Rochdale Envelope'[1], which provides additional details on the recommended approach.

2.3.15 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be consistently and clearly defined in the draft DCO (dDCO) and therefore in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed

[1] Advice Note nine: Using the Rochdale Envelope. 2012. Available at: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.

2.3.16 It should be noted that if the Proposed Development changes substantially during the EIA process and prior to submission of the DCO application the Applicant may wish to consider requesting a new scoping opinion.

2.3.17 It is noted that there are a number of design areas such as structures (e.g. tunnels, underpasses and bridges), earthworks design, lighting and drainage that are not described in detail in the Scoping Report that will need to be fully assessed within the Applicant's ES. Such assessments must be based on detailed parameters, taking into account any proposed limits of deviation.

3. EIA APPROACH

3.1 Introduction

3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note 7 'Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping'[2] and associated appendices.

3.1.2 Aspects/matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report. The Inspectorate has set out in this Opinion where it has/has not agreed to scope out certain aspects or matters on the basis of the information available at this time. The Inspectorate is content that this should not prevent the Applicant from subsequently agreeing with the relevant consultees to scope such aspects/matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.

3.1.3 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultees agree on the adequacy of the measures proposed.

3.2 Relevant National Policy Statements (NPSs)

3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.

3.2.2 The designated NPS relevant to the transport sector is the NPS for National Networks (NPSNN).

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[2] Advice Note seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping. Available from: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

3.3 Scope of Assessment

General

3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:

- To demonstrate how the assessment has taken account of this Opinion;
- To identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
- To set out the proposed mitigation and/or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
- To describe any remedial measures that are identified as being necessary following monitoring; and
- To identify where details are contained in the Habitats Regulations Assessment (HRA) report (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

3.3.2 The Inspectorate considers that where a DCO application includes works described as 'associated development', that could themselves be defined as an improvement of a highway, the Applicant should ensure that the ES accompanying that application distinguishes between; effects that primarily derive from the integral works which form the proposed (or part of the proposed) NSIP and those that primarily derive from the works described as associated development, for example through a suitably compiled summary table. This will have the benefit of giving greater confidence to the Inspectorate that what is proposed is not in fact an additional NSIP defined in accordance with s22 of the PA2008.

3.3.3 The Inspectorate notes there is very little information in the Scoping Report to explain the physical characteristics of the Proposed Development including the main structures, construction and maintenance phases of the Proposed Development eg detailed description of location and size of the proposed Mottram tunnel, road junctions, River Etherow bridge structure, construction compounds, location and dimension of culverts and underpasses, location and dimension of earth mounds and road closures or diversions, including for Public Rights of Way (PRoW). The ES should include a description of these characteristics which should be used to inform the assessment in relevant aspects.

Baseline Scenario

3.3.4 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the

basis of the availability of environmental information and scientific knowledge.

Forecasting methods or evidence

3.3.5 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.

3.3.6 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the EIA, which clearly states which effects are 'significant' and 'non-significant' for the purposes of the EIA. Any departure from that methodology should be described in individual aspect assessment chapters.

3.3.7 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and emissions

3.3.8 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.

Mitigation

3.3.9 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, ideally with reference to specific DCO requirements or other legally binding agreements.

3.3.10 Provision of an assessment of pre- and post-mitigation impacts is recommended since this greatly aids understanding of the efficacy of any mitigation measures proposed and therefore the reliance placed on such measures.

Vulnerability of the development to risks of major accidents and/or disasters

3.3.11 The ES should include a description of the potential vulnerability of the Proposed Development to risks of major accidents and/or disasters, including vulnerability to climate change, which are relevant to the Proposed Development. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as

Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Transboundary effects

3.3.12 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Inspectorate notes that the Applicant has not indicated in the Scoping Report whether the Proposed Development is likely to have significant impacts on another European Economic Area (EEA) State.

3.3.13 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.

3.3.14 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary impacts and if so, what these are and which EEA States would be affected.

A reference list

3.3.15 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Confidential Information

3.4.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

4. ASPECT BASED SCOPING TABLES

4.1 Air Quality (Scoping Report section 5.2)

The study area for construction effects is 200m from the construction site boundary, based on the Design Manual for Roads and Bridges (DMRB) HA207/07. The construction site boundary is not formally defined in the Scoping Report and it does not specifically address the impact of construction traffic flows on emissions within local Air Quality Management Areas (AQMAs), which is a requirement of DMRB where the construction stage exceeds 6 months. For operation, the study area will be determined having regard to the predicted extent of change in traffic flows on the local road network, also based on threshold values defined in DMRB.

The assessment method comprises DMRB HA207/07, supplemented by Interim Advice Notes (IAN) including (170/12; 174/13; 175/13; 185/15) and Defra's Local Air quality management technical guidance (LAQM.TG16).

The Applicant identifies that air quality could be affected on roads within AQMA and that the annual mean NO_2 Air Quality Strategy (AQS) objective could be exceeded at some roadside receptors.

No matters have been proposed to be scoped out of the assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
1	n/a	n/a	n/a
	Para	**Other points**	**Inspectorate's comments**
2	5.2.1 11.1.1 Figure 1.3	Study area.	The description of study areas within the Scoping Report is open to interpretation due to the lack of definition of the boundary from which study areas have been taken. For example, the Scoping Report refers to "construction site boundary" in the air quality methodology, "the Scheme" in the cultural heritage, road drainage and the water environment and geology and soils methodologies, "the scheme boundary" in the people and communities and noise and vibration methodologies. Scoping Report figures refer to the 'redline boundary', which includes areas of temporary land take for construction and permanent operational land take i.e. the maximum anticipated scheme footprint. Within the Applicant's ES the boundary

			from which study areas are derived should be clearly defined, unambiguous and cross referenced to a plan. The Applicant proposes to apply the DMRB HA207/07 methodology to assessment of construction dust and to define the study area. The ES should explain and justify why more recent criteria, which recognise that construction dust effects may occur over a wider extent than is proposed to be assessed, have not been adopted (e.g. the Institute of Air Quality Management (IAQM) Guidance on the assessment of dust from demolition and construction 2014). The ES should also assess impacts from construction vehicles in line with DMRB HA207/07, since construction is expected to last for more than 6 months. The Applicant should consider the need to supplement the assessment with modelling of construction vehicle movements as an additional scenario. The need to include a quantitative assessment should be discussed with the relevant local authority Environmental Health Officers. The extent of the operational air quality model should be agreed with the relevant planning authorities following completion of the transport modelling process. The study area should be sufficient to consider consequential effects during operation, eg such as increases in traffic on the A616, A628 (including in the village of Tintwistle) and the AQMA at Langsett due to the enhanced attractiveness of the route to users.
3	5.2.4	EU Ambient Air Quality Directive	The Inspectorate considers that the ES should include an assessment of impacts associated with all relevant pollutants under the EU ambient air quality directive including increases in $PM_{2.5}$ resulting from the Proposed Development where relevant. The Applicant's attention is drawn to Public Health England's comments in this respect. In determining significance, the assessment should take into account performance against relevant target/limit values.
4	5.2.5(5)	Scenarios to be modelled	In accordance with DMRB the assessment scenarios to be modelled should also include the worst year in the first 15 years

			from opening where this is different from the scenarios set out.
5	5.2.6(4)	Use of historical meteorological data	The Applicant should have regard to the potential for climate change to influence future meteorological conditions and the potential for this to impact on emissions modelling and set out how future changes would be evaluated.

4.2 Cultural Heritage (Scoping Report section 5.3)

The proposed study area is 1km from the scheme for designated assets and 500m for non-designated assets.

The assessment method comprises a detailed desk based assessment and site based evaluation (walkover survey).

The Scoping Report identifies potential impacts on the setting of Mottram in Longdendale Conservation Area and Grade II listed buildings during construction and operation. Potential effects on archaeological remains are also highlighted, although the extent of such remains is uncertain at present.

The Applicant proposes to scope out historic landscape character effects and an assessment of effects on the settings of two Grade II* listed buildings.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
6	5.3.6(3)	Effects on two Grade II* listed buildings	There is insufficient detail provided to understand the potential effects of the Proposed Development on the Grade II* listed Church of St Michael and All Angels or its setting, consequently the Inspectorate does not consider that an assessment of effects on this building should be scoped out of the ES. The Applicant's attention is drawn to Historic England's comments in respect of the assessment. The Inspectorate considers that significant effects on the Grade II* listed Cross are unlikely and may be scoped out based on its nature and location relative to the scheme.
7	5.3.6(4)	Historic landscape character assessment.	The baseline text in the Scoping Report states that a reasonably high degree of time-depth exists in the landscape. On this basis and due to the lack of justification or evidence for scoping out such an assessment it is considered that an historic landscape character assessment should be undertaken and the scope agreed with the relevant local conservation officers and Historic England as appropriate. The Inspectorate also notes the paragraph 5.145 of the NPSNN which requires an assessment of historic landscape character

	Para	Other points	Inspectorate's comments
8	5.3.1 Figure 1.3 Figure 5.4	"In accordance with DMRB HA 208/07, the study area will encompass an area extending 1km from the Scheme for designated heritage assets and 500m for non-designated heritage assets"	DMRB HA208/07 does not specify particular distances to be applied to study areas. The ES should justify any study areas adopted for the assessment. The final study area should be defined with reference to the Zone of Visual Influence for the scheme, which has not yet been prepared. Please also refer to study area comments in section 4.1 of this report.
9	5.3.2	Baseline information	Historic England highlights that mesolithic remains are present within the study area in addition to the baseline features set out in section 5.3.2. Impacts on mesolithic archaeology should be considered within the Applicant's desk study and used to inform the need for further archaeological investigation, which should be agreed with the relevant local authority conservation officers.
10	5.3.3(2)	Intrusive and non-intrusive investigations	The Inspectorate does not consider the measures set out (trial trenching and geophysical survey) to be mitigation, since these measures inform the scope of assessment and therefore the likely significant effects of the development. The Inspectorate considers that geophysical surveys should be undertaken to inform the general assessment and to identify the need for further more detailed assessment where necessary. The Applicant should discuss and seek to agree the scope of such assessments with Historic England, the County Archaeologist and/or relevant local authority conservation officers as appropriate following completion of the desk study and site walkover assessment.
11	5.3.2 5.3.4	Settings effects	No reference is made to the potential for the Proposed Development to impact the setting of Melandra Castle Scheduled Monument identified in paragraph 5.3.2 of the Scoping Report. Impacts on this receptor should be assessed as part of the ES. The ES should also assess the impact of potential increases in traffic on the Tintwistle Conservation Area.

12	5.3.5	Assessment methodology	The ES should explain why more recent guidance prepared by Historic England and the Chartered Institute for Archaeologists has not been adopted or referenced in respect of the cultural heritage assessment. The Applicant should address Historic England's comments regarding the proposed cultural heritage significance criteria in their ES methodology.

4.3 Biodiversity (Scoping Report section 5.4)

The proposed study area is 2km from "the scheme" for statutory and non-statutory designated sites and up to 30km for Special Areas of Conservation (SAC) for bats.

The proposed assessment method is based on DMRB Volume 11, Section 3, Part 4 and the 2016 Chartered Institute for Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal 2nd edition 2016 guidelines, which are industry standard assessment methods. Reference is also made to British Standards (BS) for tree works including BS3998:2010[3] and BS5837:2012[4]; Arboricultural Association and the National Joint Utilities Group (2004) guidelines[5].

The Applicant identifies the potential for direct effects on certain habitats and species including otter which is a European protected species.

The Applicant suggests that baseline surveys support scoping out a range of species and habitats surveys.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
13	5.4.6(6/7)	Selected Species and species groups/ habitats: • White-clawed crayfish; • Aquatic invertebrates; • Terrestrial invertebrates; • Reptiles; • Dormice; • Peak District Moors (South Pennine Moors Phase 1) SPA,	The Applicant proposes to scope out an extensive number of habitat and species specific surveys and assessments of impacts on designated sites. The Inspectorate notes the comments of Tameside Borough Council but the Scoping Report fails to provide baseline survey data to support the proposed scope. The Inspectorate also considers that there are likely to be impacts on these matters relating to the potential increase in traffic on the Trans-Pennine route. On this basis the Inspectorate considers that these surveys cannot be scoped out of the assessment (refer to paragraph 3.1.2 of this Opinion).

[3] BS3998:2010. Tree work recommendations. BSI.

[4] BS5837:2012. Trees in relation to design, demolition and construction – recommendations. BSI.

[5] Guidelines for the planning, installation and maintenance of utility services in proximity to trees. NJUG. 2004.

		Hurst Clough LNR and Great Wood LNR; • Non-statutory designated sites; • Other S41 and non-S41 Habitats; • Protected and Notable Plants (including Fungi); • Invasive flora • Amphibians; and • Other Mammals (Hedgehog, Polecat and Brown Hare).	The Applicant should seek further agreement as to the final scope of the assessment including for designated sites (eg Dark Peak SSSI, South Pennine Moors SAC and the Peak District Moors SPA) where impacts may occur, with the relevant local authority ecologists and Natural England, as appropriate. The Applicant's attention is drawn to the specific habitats and receptors identified as being potentially affected by Peak District National Park Authority.
	Para	**Other points**	**Inspectorate's comments**
14	5.4.1 Figure 1.3	"In accordance with DMRB Volume 11, Section 3, Part 4, the study area would extend to 2km from the scheme for statutory and non-statutory designated sites and up to 30km for (SACs)…."	DMRB Volume 11, Section 3, Part 4 does not specify any particular distances applied to establish study areas. The Applicant should justify the study area(s) adopted for each assessment in the ES. The Inspectorate assumes that "the scheme" refers to the redline boundary indicated in Figure 1.3 of the Scoping Report. The Applicant should assess impacts which may increase load values at designated sites and give rise to consequential adverse effects alone and cumulatively with other proposed development. The assessment study area should extend to ensure coverage of the entire impact area rather than an arbitrary 2km study boundary. Please also refer to study area comments in section 4.1 of this report.
15	5.4.3	Mitigation	The Applicant should address the specific mitigation requirements set out by the consultation bodies with respect to habitat and protection of watercourses including the need to ensure no net loss to the aquatic/riparian environment and the establishment of buffer zones beside watercourses. The Applicant's attention is drawn to the comments of the Environment Agency in this respect.
16	5.4.5	Assessment methodology	The Applicant should ensure that the context of climate change (in terms of effects on the future baseline for

			biodiversity) and noise and vibration effects on biodiversity are considered in the ES. River Corridor Surveys should be undertaken for any watercourse impacted by the scheme.
17	5.4.6	Otters/water vole	In light of the potential for impacts on otters and water vole, the Applicant should ensure that culvert and bridge designs give appropriate consideration to the need for animal passes.
18	5.5.3	Lighting	Impacts from construction and operational lighting to protected species (e.g. bats) including the potential to cause severance to flight paths should be assessed.

4.4 Landscape and Townscape (Scoping Report section 5.5)

The study area is proposed to be defined based on desk study, site survey, use of a Zone of Theoretical Visibility (ZTV) and professional judgement.

The proposed assessment scope follows industry standard guidance, such as the Guidelines for Landscape and Visual Impact Assessment (GLVIA3) and DMRB.

The Applicant identifies the potential for significant adverse landscape character and visual amenity effects.

No landscape and visual elements are proposed to be scoped out.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
19	n/a	n/a	n/a
	Para	**Other points**	**Inspectorate's comments**
20	5.5.1	Study area	The assessment study area should take into account impacts due to induced traffic flows on wider landscape and visual receptors including the National Park. Please also refer to study area comments in section 4.1 of this report.
21	5.5.2	Selection of seven representative viewpoints.	The Inspectorate welcomes the Applicant's commitment to consult with relevant local planning authorities to discuss and agree the final selection of representative viewpoints for inclusion in the ES. The ES should assess any significant effects anticipated to viewpoints from Tintwistle Low Moor and the Pennine Way/Trans-Pennine Trails.
22	5.5.3	Planting strategy and new road alignment.	The Applicant should consider the potential for the proposed planting strategy and new road alignment to be designed to enhance the existing Public Rights of Way (PRoW) network, where feasible.
23	5.5.3	Street lighting design strategy.	The visual impact of night-time lighting on residential receptors and ecology should be assessed within the ES and night-time photomontages should be included where appropriate. See also comments under section 4.3 of this opinion.

4.5 People and Communities (Scoping Report section 5.6)

The proposed study area is 10m from the scheme boundary for direct effects on people/community assets and 500m for other effects.

The proposed people and communities assessment methodology combines several sections of DMRB into a single assessment method based on guidance in IAN 125/15.

Significant adverse and beneficial effects are predicted for a number of receptors, although these are not identified at present.

The Applicant proposes to scope out effects on strategic employment sites and commercial enterprises.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
24	5.6.6	Effects on strategic employment sites.	The Inspectorate considers that an assessment of impacts on strategic employment sites can be scoped out of the ES due to an absence of such sites within the study area. The Applicant's ES should demonstrate by reference to the local plan process that there are no such sites existing or proposed in the study area.
25	5.6.6 Figure 5.11	Effects on commercial enterprises.	Figure 5.11 of the Scoping Report suggests that the Mottram Agricultural Showground will experience direct impacts from the Proposed Development. The ES should include an assessment of impacts on this commercial enterprise. The ES should include an assessment of the impact on agricultural land holdings where applicable. The Applicant should seek to agree with the local planning authority the detailed list of receptors to include in the assessment.
	Para	**Other points**	**Inspectorate's comments**
26	5.6.1	Study area	The study area should be sufficient to assess the potential for consequential road safety effects to arise due to increases in traffic on the Trans-Pennine route in operation. The final study area should be informed by the likely area of impact defined through the transport model. Please also refer to study area comments in

			section 4.1 of this report.
27	5.6.2	Public Rights of Way (PRoW).	The ES should assess the impact of severance to PRoW including footpaths. If mitigation is proposed this should include consideration of new PRoW provision as part of the overall scheme design.
28	5.6.2 6.3	Development land	The assessment of impacts on People and Communities should have regard to the current draft allocations within the draft Greater Manchester Spatial Framework (GMSF). These allocations should also be taken into account in the cumulative effects assessment process. The Applicant should refer to Tameside Borough Council's comments in this respect.
29	11.1.32	Approach to assessment of significance.	The application of professional judgement to assess significance should be fully justified in the Applicant's ES. The relevant sensitivity and value criteria applied to this aspect assessment should be presented and explained in the ES.

4.6 Noise and Vibration (Scoping Report section 5.7)

The proposed construction study area is 300m from the scheme boundary or 300m from routes experiencing an increase in noise >1dB as a result of the scheme. The operational study area is proposed to be defined in accordance with DMRB HD213/11 and with respect to the affected road network defined by a scheme specific Saturn model.

The proposed construction assessment methodology is based on industry standard guidance (BS5228:2009+A1:2014) and the operational methodology is based on DMRB HD213/11 supported by noise modelling.

Significant construction noise and vibration effects and operational noise effects are predicted, including effects in excess of the Significant Observed Adverse Effect Level (SOAEL).

The Applicant proposes to scope out the effects of Groundborne vibration from road traffic.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
30	5.7.6	Groundborne vibration from road traffic.	The Inspectorate considers that groundborne vibration from road traffic cannot be scoped out due to the proximity of existing residential receptors to the proposed tunnel at Mottram and due to the issue of increasing heavy goods vehicle movements climbing and braking on the A628. The assessment should also consider the impact of ground borne noise from Mottram tunnel, where applicable. The final scope of the noise and vibration assessment should be agreed with the relevant local authority Environmental Health Officers.
	Para	**Other points**	**Inspectorate's comments**
31	5.7.1	Study area	The extent of the operational noise model should be agreed with the relevant planning authorities following completion of the transport modelling process. The study area applicable to the assessment should be sufficient to include any consequential impacts, eg such as increases in traffic on the A616, A628 due to the enhanced attractiveness of the route to users.

			Please also refer to study area comments in section 4.1 of this report.
32	5.7.4 Table 11.17	SOAEL and Lowest Observed Adverse Effect Level (LOAEL).	Reference is made to both SOAEL and LOAEL. Consistent with the Noise Policy Statement for England (NPSE), LOAEL and SOAEL should be defined for all of the construction and operational noise and vibration matters assessed (eg airborne noise, groundborne vibration etc). Mitigation measures should be set out accordingly.
33	11.1.34 to 11.1.40	Vibration significance criteria	The Scoping Report refers to BS5228 part 2 and DMRB HD213/11 which both include vibration significance criteria. The Scoping Report does not explicitly set out these criteria in Appendix A. The construction and operation vibration criteria used for the assessment should be clearly presented and explained in the ES.

4.7 Road Drainage and the Water Environment (Scoping Report section 5.8)

The study area is 500m from the scheme, although the study area may be extended where necessary.

The proposed assessment methodology is DMRB HD45/09 supplemented by hydrological and hydraulic modelling; three dimensional numerical modelling, hydrogeological risk assessment, a water features survey and groundwater level monitoring. The potential for overlap between geology and soils assessments and the road drainage and the water environment assessment is highlighted in section 4.8 of this report.

The Applicant identifies potential effects on water resources in the absence of embedded design and mitigation measures. A key potential effect is identified as deterioration of the Water Framework Directive (WFD) status of waterbodies receiving highway runoff.

The Applicant proposes to scope out operational effects assessment.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
34	5.8.3 5.8.6	Operational effects	The Scoping Report proposes to scope out an assessment of operational effects on the basis that design mitigation measures would be agreed with the Environment Agency and the Lead Local Flood Authority. The Inspectorate notes the potential impact on WFD status at waterbodies identified within the study area at paragraph 5.8.3 of the Scoping Report. There is also potential for operational flooding at the proposed Woolley Bridge junction. The Inspectorate considers that these impacts may result in significant effects and so does not agree to scope these matters out of the ES. The Inspectorate also notes the NPSNN requirement to consider impacts on WFD waterbodies. The Inspectorate also considers that the scope of the flood risk assessment should include the potential interaction between emptying of upstream reservoirs and the Proposed Development, where appropriate. The ES should assess the interplay between flood risk and traffic flows in any crossing solution for the River Etherow.

			The Applicant's ES and WFD assessment should have regard to the relevant River Basin Management Plan and the detailed WFD assessment scope should be agreed with the Environment Agency.
	Para	**Other points**	**Inspectorate's comments**
35	5.8.1	Study area	Please also refer to study area comments in section 4.1 of this report.
36	5.8.1	Hydraulically linked designated sites	The Scoping Report states that the study area will be extended to consider impacts on hydraulically linked sites 'where necessary'. It is unclear what the trigger for such an assessment would be. The ES should identify assessed impacts on relevant sites where significant effects are likely to occur.
37	5.8.2	Groundwater Water Framework Directive (WFD) status	The Applicant should ensure that the ES assessment includes WFD status as an attribute or indicator of quality in assessments of impacts on both surface and groundwater.
38	5.8.2	Additional information	The additional information required to assess the effect of bridge and culverting works should include scour and geomorphological assessments, where relevant, the detailed scope of which should be agreed with the Environment Agency and Lead Local Flood Authority as appropriate. Bridge and culvert solutions should have regard to effects on protected aquatic/ riparian species such as otter/water vole as raised in section 4.3 of this opinion.

4.8 Geology and Soils (Scoping Report section 5.9)

The proposed study area is a 250m buffer either side of the scheme. The scheme boundary is not formally defined.

The proposed assessment methodology is based on DMRB Volume 11, Section 3, Part 11; Environment Agency Model Procedures for the Management of Land Contamination (CLR11) and CIRIA guide C552 Contaminated Land Risk Assessment.

The Applicant identifies the potential for adverse effects on human health to arise from contact with contamination during construction. A beneficial effect is identified due to tunnelling arising from exposure of geology as a learning resource.

No geology and soils elements are proposed to be scoped out.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
39	n/a	n/a	n/a
	Para	**Other points**	**Inspectorate's comments**
40	5.1.3	Population and health	The list of matters to be considered as part of a broader population and health assessment within the cumulative effects assessment does not currently include geology and soils, although human health impacts may arise from a potential adverse construction effect in relation to this aspect. The Applicant should consider geology and soils impacts within the broader assessment of impacts on population and health.
41	5.9.1	Study area	Please also refer to study area comments in section 4.1 of this report.
42	5.9.1	250m study area buffer	It is unclear why the study area buffer is restricted to 250m and is considered to be the distance over which potentially contaminative sites could cause an impact when the cumulative ZOI is set at 1km. The final study area requires further explanation/ justification and should be determined according to the extent of impacts.
43	5.9.2	Baseline data	The Inspectorate notes the potential overlap in datasets used for the cultural heritage; road drainage and the water

			environment; and geology and soils sections and recommends that duplication of these datasets is minimised in order to minimise the size of the ES. The Applicant's attention is also drawn to comments from the Coal Authority regarding potential risks to development.
44	5.9.2	Ground investigation	The ground investigation should have regard to the potential for subsurface archaeological remains to be present within the study area (as highlighted in section 4.2 of this Opinion).
45	5.9.3	Management plans	This section makes reference to management plans including emergency/spill response plans; Construction Environmental Management Plan (CEMP); Site Waste Management Plan (SWMP) and Materials Management Plan (MMP). The Applicant should provide draft copies of these documents appended to the ES and/or demonstrate how they are intended to be secured through the dDCO.
46	5.9.4	Geology exposure as a beneficial learning resource in operation.	The Inspectorate welcomes the proposed geological learning resource and considers that the Applicant should assess constraints associated with visiting and studying such an exposure such as accessibility.
47	5.9.5	Methodology	The Applicant should refer to the Environment Agency guiding principles for land contamination when assessing risks to controlled waters from the site.
48	11.1.46 to 11.1.49	Inclusion of hydrogeology and hydrology in significance criteria.	The Applicant should ensure that the assessment of effects is consistent with any assessment of significance based on hydrogeology and hydrology criteria adopted for the Road Drainage and the Water Environment assessment.

4.9 Materials (Scoping Report section 5.10)

No specific study area is proposed since a 'whole-market' approach to materials procurement is proposed.

The proposed assessment methodology is based on DMRB HA 205/08 and IAN 153/11.

No adverse effects are identified in relation to capacity of waste management infrastructure, effects on material resources or waste from construction, demolition and excavation (CDE) activities. The Applicant identifies that cumulative effects on material resources and waste capacity may be significant.

The Applicant proposes to scope out operational materials effects.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
49	5.10.6	Operational material effects	The Inspectorate agrees that significant operational effects with regards to materials are unlikely and can be scoped out from further assessment provided that the effect of any resurfacing activity is addressed as part of the GHG assessment.
	Para	**Other points**	**Inspectorate's comments**
50	5.10.3	Management plans	The Applicant makes reference to management plans including a CEMP and SWMP. The Applicant should submit drafts of these documents appended to the ES also demonstrating how the proposed mitigation would be secured eg by cross referencing to the Applicant's dDCO.

4.10 Climate (Scoping Report section 5.11)

The proposed climate assessment considers climate resilience and adaptation in the context of the north west region and greenhouse gas (GHG) effects based on the extent of the Saturn traffic model for the Proposed Development.

The GHG assessment is based on the GHG subobjective of the Transport Assessment Guidance (TAG) Unit A3; paragraph 5.17 of the NPSNN and the PAS2080:2016 Carbon Management in Infrastructure methodology. No specific methodology is stated in relation to climate change adaption and resilience, although paragraph 4.40 of the NPSNN is referenced.

No significant construction effects are predicted. The operation of the scheme is predicted to change GHG emissions.

No elements are proposed to be scoped out.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
51	n/a	n/a	n/a
	Para	**Other points**	**Inspectorate's comments**
52	5.11.1	Study area	The study area for GHG emissions is the extent of the traffic model, which is not determined at present. The study area should be defined in the Applicant's ES and should take account of induced traffic flows due to operation of the scheme in the north west and in the Peak District National Park.
53	5.11.2	UK climate projections	The applicant should clearly state the range of climate projections used for the purposes of any adaptation or resilience assessment. It is noted that updated Met Office projections are anticipated in 2018.
54	5.11.5(3)	No recognised significance criteria	Scoping report paragraph 5.11.5 states that significance of impacts will be assessed by comparing estimated GHG emissions from the Proposed Development against UK carbon budgets. Paragraph 11.1.55 of the Scoping Report states that no recognised significance criteria are available, so the assessment will demonstrate levels of emissions predicted for construction and operation. For the avoidance of doubt, the Applicant should provide a conclusion regarding the significance of assessed

			climate change impacts.
55	5.11.5	Scope of GHG assessment	The Applicant should assess the impact of any resurfacing activity as part of the GHG assessment, where this has potential to give rise to likely significant effects.

4.11 Cumulative Effects (Scoping Report section 6)

The study area proposed is broadly consistent with study areas used in the individual aspect chapters, although air quality and noise and vibration remain to be defined and the landscape and cultural heritage ZOI may be set over a shorter distance than necessary based on comparison with the ZTV and the final transport modelling outputs for the Proposed Development. As with other aspects of the assessment, the boundary from which the ZOI is defined is not clearly stated.

The proposed cumulative effects assessment methodology is consistent with Advice Note 17 (AN17).

No likely significant effects are identified at this stage and no elements are proposed to be scoped out.

ID	Para	Applicant's proposed matters to scope out	Inspectorate's comments
56	n/a	n/a	n/a
	Para	**Other points**	**Inspectorate's comments**
57		Zones of Influence	
	6.1.6 Table 6.1	Study area Landscape ZOI is limited to 1km. Cultural heritage ZOI and ZOI relating to the transport modelling outputs.	The Inspectorate considers that it is premature to establish a 1km landscape and visual study area when the ZTV for the Proposed Development has not yet been established and it could therefore be substantially greater than 1km. The Applicant should consider the need for a broader landscape and visual ZOI. Similarly the ZOI for cultural heritage and settings effects should be informed by the ZTV rather than confined to an arbitrary boundary. Transport modelling outputs are also not yet confirmed. The Applicant should finalise ZOI which rely on transport model outputs (eg air quality and noise and vibration) once the model outputs are available. Please also refer to study area comments in section 4.1 of this report.
58	6.3.1	Desk study	The base datasets that have been used to inform the cumulative effects assessment desk study are not stated. This information should be provided in the Applicant's ES.
59	6.3.4	Threshold criteria	The threshold criteria used to shortlist

			projects are not stated and should be set out in the Applicant's ES for transparency.
60	6.3.8	"following agreement from the Planning Inspectorate.. ..more detailed information would be gathered on the other developments"	'Other development' to be assessed within the ES should be agreed with the relevant consultation bodies and should consider effects on Dark Peak SSSI, South Pennine Moors SAC and the Peak District Moors SPA; national trails and Tintwistle Village and Conservation Area.
61	1.2.2	Development of A628 Climbing Lanes and A61 Dualling.	The Scoping Report states that these schemes have been postponed until a later date to allow further consideration of the benefits associated with them. The Applicant should provide justification for excluding such schemes from the cumulative assessment eg by reference to the tiered approach set out in the Inspectorate's AN17 or provide an assessment of the cumulative effect of these schemes where there is reasonable certainty regarding their development.

5. INFORMATION SOURCES

5.0.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:

- Pre-application prospectus[6]
- Planning Inspectorate advice notes[7]:
  - Advice Note Three: EIA Notification and Consultation;
  - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
  - Advice Note Five: Section 53 Rights of Entry (Planning Act 2008);
  - Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping;
  - Advice Note Nine: Using the 'Rochdale Envelope';
  - Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
  - Advice Note Twelve: Transboundary Impacts
  - Advice Note Seventeen: Cumulative Effects Assessment; and
  - Advice Note Eighteen: The Water Framework Directive.

5.0.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended).

[6] The Planning Inspectorate's pre-application services for applicants. Available from: https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/

[7] The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES[8]

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	Tameside and Glossop Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - North West
The relevant fire and rescue authority	Greater Manchester Fire and Rescue Service
	Derbyshire Fire and Rescue Service
The relevant police and crime commissioner	Greater Manchester Police and Crime Commissioner
	Derbyshire Police and Crime Commissioner
The Environment Agency	The Environment Agency - Greater Manchester, Merseyside and Cheshire; East Midlands
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Tameside Metropolitan Borough Council
	Derbyshire County Council
The relevant strategic highways company	Highways England - Yorkshire & North East; North West
The Coal Authority	The Coal Authority
Public Health England, an executive agency of the Department of Health	Public Health England
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - North West

[8] Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Secretary of State for Defence	Ministry of Defence

TABLE A2: RELEVANT STATUTORY UNDERTAKERS[9]

STATUTORY UNDERTAKER	ORGANISATION
The relevant Clinical Commissioning Group	Tameside and Glossop Clinical Commissioning Group
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East Midlands Ambulance Service NHS Trust
The relevant NHS Trust	North West Ambulance Service NHS Trust
Railways	Highways England Historical Railways Estate
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes and Communities Agency
The relevant Environment Agency	Environment Agency - Greater Manchester, Merseyside and Cheshire; East Midlands
The relevant water and sewage undertaker	United Utilities
The relevant public gas transporter	Cadent Gas Limited
	Energetics Gas Limited
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd

[9] 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (as amended)

STATUTORY UNDERTAKER	ORGANISATION
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	Wales and West Utilities Ltd
The relevant electricity distributor with CPO Powers	Energetics Electricity Limited
	Energy Assets Power Networks
	ESP Electricity Limited
	G2 Energy IDNO Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Leep Electricity Networks Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Utility Distribution Networks Limited
	Electricity North West Limited
	National Grid Electricity Transmission Plc
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc

TABLE A3: SECTION 43 CONSULTEES (FOR THE PURPOSES OF SECTION 42(1)(B))[10]

LOCAL AUTHORITY[11]
Tameside Metropolitan Borough Council
High Peak Borough Council
Derbyshire County Council
Peak District National Park Authority
Manchester City Council
Oldham Council
Sheffield City Council
Stockport Council
Staffordshire Moorlands District Council
Kirklees Council
Barnsley Council
Cheshire East Council
Derbyshire Dales District Council
Rotherham Metropolitan Borough Council
Derby City Council
Leicestershire County Council
Staffordshire County Council
Nottinghamshire County Council

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
Greater Manchester Combined Authority

[10] Sections 43 and 42(B) of the PA2008

[11] As defined in Section 43(3) of the PA2008

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

Consultation bodies who replied by the statutory deadline:

Barnsley Metropolitan Borough Council
The Coal Authority
Derby City Council
Derbyshire County Council
The Environment Agency
ESP Gas Group Ltd
Greater Manchester Combined Authority
The Health and Safety Executive
High Peak Borough Council
Historic England
Leicestershire County Council
NATS Safeguarding
National Grid
Natural England
NHS England
Office of the Police and Crime Commissioner
Oldham Metropolitan Borough Council
Peak District National Park
Public Health England
Royal Mail
SGN
Stockport Metropolitan Borough Council
Tameside Metropolitan Borough Council
Utility Assets Ltd
Wales and West Utilities

From:	Heyworth , GIll
To:	Trans-Pennine Upgrade Programme
Cc:	Castle , Paul; Wilson , Ian; Shields , Chris; Gardham , James; Beddoes , Ann
Subject:	Transpennine Upgrade - BMBC Response to EIA Scoping Document
Date:	06 December 2017 11:09:37

Dear Dr Hunt

Further to the invitation to comment on the above, please find below Barnsley MBC's comments:

There is concern that there is no mention of the air quality impact beyond the immediate study area of the proposed scheme at Mottram etc and that it also considers neither the impact of the previously proposed "crawler" lane of the eastbound carriageway of the A628, west of the borough boundary, nor the previously proposed "dualling" of the A61 adjacent to junction 36 of the M1 motorway within the Barnsley borough.

At previous stakeholder meetings with Highways England, Barnsley MBC officers have consistently stressed the air quality issues at Langsett on the A616 (Langsett is an air quality management area due to raised traffic emissions causing exceedance of the annual mean and 1-hour mean objectives for nitrogen dioxide gas). Officers have stressed that improvements in Mottram will enhance the attractiveness of this trans-Pennine route to users, which may result in increased traffic. Consequently therefore there may be increased air quality impact in Langsett due to any increased traffic flow.

It is essential therefore that any subsequent EIA (including assessment of air quality impact) take account of the above, and that an assessment of air quality impact along the A616 and A628 in the Barnsley borough is undertaken.

Furthermore, there may also be noise impact, which would require a similar assessment in the Barnsley borough.

I hope the above is of help.

Kind regards

Gill

Gill Heyworth
Acting Strategic Transportation Manager
Barnsley MBC

Tel: 01226 772039

The Coal Authority

INVESTOR IN PEOPLE

RTPI Learning Partner

200 Lichfield Lane
Berry Hill
Mansfield
Nottinghamshire
NG18 4RG

Tel: 01623 637 119 (Planning Enquiries)

Email: planningconsultation@coal.gov.uk

Web: www.gov.uk/coalauthority

For the Attention of: Dr Richard Hunt - Senior EIA and Land Rights Advisor

[By Email: Trans-PennineUpgradeProgramme@pins.gsi.gov.uk]

5 December 2017

Dear Dr Hunt

SCOPING OPINION: TR010034-000004

Application by Highways England (the Applicant) for an Order granting Development Consent for the Trans-Pennine Upgrade Programme (the Proposed Development) Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested; Trans-pennine Upgrade Programme

Thank you for your consultation letter of 9 November 2017 seeking the views of The Coal Authority on the EIA Opinion for the above development proposal.

The Coal Authority is a non-departmental public body sponsored by the Department for Business, Energy & Industrial Strategy. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

The Coal Authority Response:

The proposed EIA development is located within the defined Development High Risk Area; the site has therefore been subject to past coal mining activity.

In accordance with the agreed risk-based approach to development management in Development High Risk Areas, past coal mining activities within the site should be fully considered as part of the Environmental Statement (ES); this should take the form of a risk assessment, together with any necessary mitigation measures.

The Coal Authority notes the Environmental Impact Assessment Scoping Report, Section 5.9.1 of which acknowledges coal mining legacy and that the anticipated structure and content of the ES will include a chapter on 'Geology and Soils.' Accordingly, and whilst not specifically targeted toward coal mining legacy, The Coal Authority welcomes the

commitment to undertake investigations to determine ground conditions, the resulting report of which may be considered to constitute the equivalent of a Coal Mining Risk Assessment to meet the requirements of the National Planning Policy Framework, paragraphs 120-121. The Coal Authority considers that the proposed site layout should be informed by any coal mining legacy features associated with past surface mining operations (i.e. mine entries.)

Consideration of Coal Mining Issues in the ES

There are a number of coal mining legacy issues that can potentially pose a risk to new development and therefore should be considered as part of an Environmental Statement for development proposals within coalfield areas:

- The location and stability of abandoned mine entries
- The extent and stability of shallow mine workings
- Outcropping coal seams and unrecorded mine workings
- Hydrogeology, minewater and minegas

In addition, consideration should be afforded as part of development proposals and the ES to the following:

- If surface coal resources are present, whether prior extraction of the mineral resource is practicable and viable
- Whether Coal Authority permission is required to intersect, enter, or disturb any coal or coal workings during site investigation or development work

Coal Mining Information

Information on these issues can be obtained from The Coal Authority's Property Search Services Team (Tel: 0845 762 6848 or via The Coal Authority's website) or book an appointment to visit The Coal Authority's Mining Records Centre in Mansfield to view our mining information (Tel: 01623 637 233).

The Coal Mining Risk Assessment should be prepared by a "competent body". Links to the relevant professional institutions of competent bodies can be found at:
https://www.gov.uk/planning-applications-coal-mining-risk-assessments

Guidance on how to produce a Coal Mining Risk Assessment and a template which the "competent body" can utilise is also contained at:
https://www.gov.uk/planning-applications-coal-mining-risk-assessments

Building over or within the influencing distance of a mine entry (shaft or adit) can be dangerous and has the potential for significant risks to both the development and the occupiers if not undertaken appropriately. The Coal Authority would draw your attention to our adopted policy regarding new development and mine entries:
https://www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries

In accordance with our consultation requirements, we look forward to receiving the planning application and Environmental Statement for comment in due course.

I trust this is acceptable, please do not hesitate to contact me if you require any additional information or would like to discuss this matter further.

Yours sincerely

Chris MacArthur

Chris MacArthur *B.Sc.(Hons), DipTP, MRTPI*
Planning Liaison Manager

Disclaimer

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available coal mining data on the date of the response, and electronic consultation records held by The Coal Authority since 1 April 2013. The comments made are also based upon only the information provided to The Coal Authority by the Local Planning Authority and/or has been published on the Council's website for consultation purposes in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by The Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the Applicant for consultation purposes.

From:	Clarke, Paul
To:	Trans-Pennine Upgrade Programme
Subject:	TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation - FAO Head of Planning
Date:	13 November 2017 11:13:16
Attachments:	image001.png Letter to stat cons_Scoping & Reg 11 Notification.pdf

Dear Sir – this proposal is some 67km from Derby and I am unsure why I have been consulted. You might wish to consult Derbyshire County Council whose boundary is much closer to this site.

Regards
Paul

Paul Clarke | Head of Planning | Communities and Place | Derby City Council, The Council House, Corporation Street, Derby, DE1 2FS | Telephone 01332 641642 | Minicom 01332 340666 | www.derby.gov.uk

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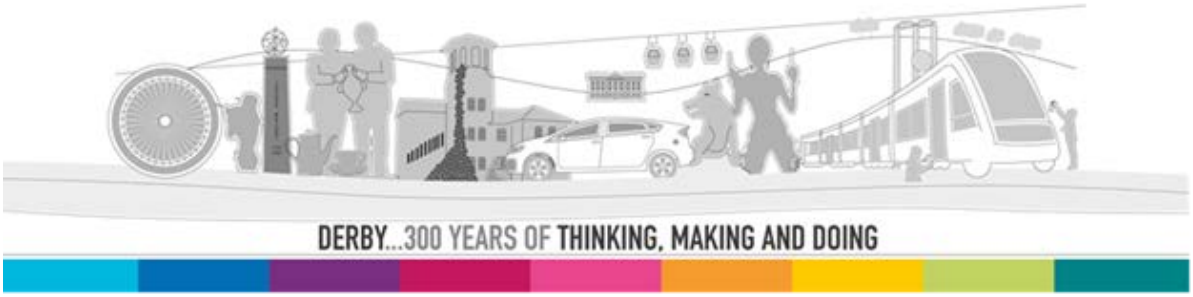


From: Trans-Pennine Upgrade Programme [mailto:Trans-PennineUpgradeProgramme@pins.gsi.gov.uk]
Sent: 09 November 2017 12:04
Subject: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation - FAO Head of Planning

Dear Sir/Madam

Please see attached correspondence on the proposed Trans Pennine Upgrade Programme.

Please note the deadline for consultation responses is **7 December 2017**, and is a statutory requirement that cannot be extended.

Kind regards,

Dr Richard Hunt

From:	Steven Buffery (Economy Transport and Environment)
To:	Trans-Pennine Upgrade Programme
Subject:	Trans-Pennine Upgrade Programme - EIA Scoping Report
Date:	06 December 2017 17:00:35

For the attention of Richard Hunt

Dear Richard,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) - Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the Trans-Pennine Upgrade Programme (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for consulting Derbyshire County Council (DCC) on the above Scoping Report. The comments below are DCC's Officer technical comments on the Scoping Report.

Overall, it is considered that the Scope of the Environmental Impact Assessment (EIA) will cover most of the salient areas where environmental impacts could potentially occur arising from the proposal(s), except where highlighted below.

In terms of consultation, it is welcomed that Section 4.2.1 indicates that a Preliminary Environmental Information Report (PEIR) will be published in the first quarter of 2018 and consulted upon as part of the statutory consultation required Under Section 42 of the Planning Act. The PEIR would hopefully provide DCC and other stakeholders with an analysis of the likely broad environmental impacts of the scheme, pending completion of the full Environment Statement.

It is also welcomed that Section 4.2.4 indicates that Statements of Common Ground (SoCC) would also be prepared in advance of submitting the application for Development Consent to confirm agreement with as many of the aspects of the Environment Statement as possible. This would be likely to save significant amounts of time and resources during the examination process.

Highways Impacts

On the basis of the Scoping Report it would appear that the EIA will provide little in the way of any actual information about the traffic impacts of the scheme(s) arising from changes in travel patterns that could potentially occur on Derbyshire's roads. Section 5.2.1 discusses the Study Area adding that the study area will be defined by the changes in traffic flows on the local road network. The Scope of the EIA sets out the criteria to be used to identify roads likely to be affected where the daily traffic flows will change by 1,000 Annual Average Daily Traffic (AADT) or more; or where daily average speeds will change by 10 kilometre/hour or more; or peak hour speed will change by 20 kilometre/hour or more. However, it is considered that if this becomes the basis upon which information about changes in traffic flow is selectively going to be provided, there could be roads in Derbyshire where a lower threshold may be more appropriate. Therefore, in the absence of any information regarding traffic impacts, DCC would reserve its position with regard to the threshold for the assessment of traffic impact arising from the scheme.

Climate Change

Having assessed Section 5.11 on Climate in detail, it is considered that in Section 5.11.2 Baseline Conditions, it should be stated that the UK Climate Projections for 2018 will be used if published at the time of the actual assessment.

Socio-Economic Impacts

-

It is of concern that the Scoping Report does not appear to make any reference to the potential socio-economic impacts of the proposed highways schemes. DCC would be particularly interested to gain a better understanding of the potential economic and regeneration benefits of the schemes, both direct and indirect, for the local economy in High Peak Borough as a consequence of the construction and implementation of the highway schemes. This could include an assessment of the number of jobs created in the construction phase and potential multiplier effects for the local economy of the area, such as through local supply chains. DCC would recommend that this is a topic which should be included in the Environment Statement or if not, it should be included in other evidence base studies, which are to be prepared to support the Development Consent Order application.

Materials

Section 5.10.2 sets out details of the Baseline Conditions for the assessment of the use of materials and the generation of waste. Part 5 refers to the fact that if a significant amount of secondary aggregates is required to facilitate the construction of the scheme, the Derbyshire County Council Minerals Local Plan and Greater Manchester Minerals Local Plan would be reviewed to ascertain if consistent baseline data for secondary aggregates could be obtained to form the basis of the quantitative assessment. It is important to note that the Derby and Derbyshire Minerals Local Plan is currently being reviewed, for which a Draft Derby and Derbyshire Minerals Local Plan will be published early in the new year. It is therefore recommended that Highways England or their consultants contact DCC to discuss this issue further as the Draft Local Plan will contain more up-to-date data and information on secondary aggregates than the previous adopted Local Plan.

-

Cumulative Impacts

Section 6.2 of the Scoping Report considers the scope of the cumulative impact implications that will be covered in the Environment Statement. It noted that a Zone of Influence has been defined for the highways schemes based on several topic areas including biodiversity, geology and soils, noise and vibration, people and communities, road drainage and the water environment, climate and health, which is welcomed in principle. However, the outputs of the Transport Modelling work for the schemes have yet to be finalised and it will be important that the extent of the Zones of Influence are informed by the final outputs of the Transport Modelling work.

It is also noted that in Table 6.2, three planning applications for larger-scale proposed residential and mixed-use developments, which have either been approved or are pending a decision, have been identified as the basis for consideration of the assessment of cumulative impacts – two in High peak Borough and one in Tameside Borough. DCC's Officers attended a presentation on the Trans-Pennine Upgrade Programme hosted by Highways England in Manchester on 22 November 2017, when the Scoping Report was discussed. DCC's Officer who attended the meeting raised the issue of cumulative impacts and the range of schemes that would be included in the cumulative

impact assessment and whether the three schemes identified in Table 6.2 had been agreed as the most relevant with the respective local planning authorities. However, Highways England's representative indicated that that no consultation had taken place with the respective local planning authorities on this issue. Accordingly, therefore, DCC would recommend that Highways England liaises with the respective local planning authorities at an early stage in preparing the Environment Statement to agree which proposed development schemes should be included in the cumulative impact assessment.

I hope this is of assistance in agreeing the final scope of the Environment Statement.

Regards

Steve

Steve Buffery | Team Leader
Policy and Monitoring
Economy, Transport and Environment | Derbyshire County Council
County Hall, Matlock, Derbyshire, DE4 3AG
01629 539808

Dr Richard Hunt - Senior EIA Adviser
The Planning Inspectorate
Major Casework Directorate
Temple Quay House (2 The Square)
Temple Quay
Bristol
Avon
BS1 6PN

Our ref: SO/2017/117737/01-L01
Your ref: TR010034-000004

Date: 05 December 2017

Dear Mr Hunt

TRANS-PENNINE UPGRADE PROGRAMME ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT
A57 MOTTRAM MOOR LINK ROAD SCHEME

Thank you for consulting the Environment Agency on the Scoping report for the proposed EIA.

We have reviewed the Environmental Impact Assessment Scoping Report, dated November 2017. We are satisfied that the scope of work outlined in the EIA will be appropriate for the management of the risks to controlled waters.

We would provide the following comments for information and to assist the applicant in preparing the EIA:-

Flood Risk

The appointed consultant has already engaged our area Partnership and Strategic Overview team to discuss the Flood Risk Assessment (FRA) requirements and proposed river modelling work. These discussions are ongoing.

Water Framework Directive

1. A Water Framework Directive (WFD) assessment will be required as part of this application and we would recommend that the scope for this is agreed at an early stage (see background note 1, below). This will allow the applicant to identify the combined survey and monitoring requirements for both EIA and WFD assessment purposes, reduce duplication of effort and identify data gaps.

2. High level advice for undertaking WFD assessments for Nationally Significant Infrastructure Projects has been published on the Planning Inspectorate's website, Advice Note 18 > https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2017/06/advice_note_18.pdf

3. We would encourage the applicant to seek the views of the Environment Agency during the pre-application stage to ensure the scope for the WFD assessment is appropriate, and to agree how the WFD assessment will be presented (for example, this could form part of the EIA).

4. It should be noted that the Water Framework Directive applies to all surface waters, regardless of whether it is defined as 'Main River' or otherwise.

Background note 1

The Water Framework Directive (WFD) is a European directive that imposes legal requirements to protect and improve the water environment. In addition, nature conservation legislation, such as the European Habitats and Birds Directives, impose legal requirements to conserve key species and habitats. Wider environmental legislation provides protection for landscape, heritage and fisheries.
Physical works that occur in and around rivers could potentially conflict with these legal requirements and/or cause harm to the water environment. The Environment Agency must secure compliance with the requirements of the WFD and meet its other environmental duties when undertaking physical works in rivers and issuing consents/licences for others to do so. Other public bodies with operational and/or regulatory responsibilities, such as Lead Local Flood Authorities and Local Planning Authorities, must have regard to the River Basin Management Plans when undertaking works and issuing consents to others. Other public bodies will have their own wider environmental duties.

Drainage

Section 5.8 of the scoping report identifies the need for a Hydrogeological Risk Assessment (HRA) to be undertaken to inform the design of the road drainage strategy. Surface water run-off should be controlled as near to its source as possible through a sustainable drainage approach to surface water management (SUDS). SUDS are an approach to managing surface water run-off which seeks to mimic natural drainage systems and retain water on or near the site as opposed to traditional drainage approaches which involve piping water off site as quickly as possible. SUDS involve a range of techniques including soakaways, infiltration trenches, permeable pavements, grassed swales, ponds and wetlands. SUDS offer significant advantages over conventional piped drainage systems in reducing flood risk by attenuating the rate and quantity of surface water run-off from a site, promoting groundwater recharge, and improving water quality and amenity.

Biodiversity/Ecology

We would expect that any watercourse that will be impacted by the proposed scheme (either during construction or afterwards) would be subject to a River Corridor Survey. The results of this survey should then be used to ensure no net loss to the aquatic/riparian environment, either in length/quantity and quality e.g. replacement of a

Cont/d..

natural watercourse with a trapezoidal straight drainage ditch.

We would also wish to see an 8 metre undisturbed buffer zone alongside watercourses and that this buffer zone will be protected during development.
Buffer zones to watercourses are required for the following purposes:
(i) to allow the watercourse to undergo natural processes of erosion and deposition, and associated changes in alignment and bank profile, without the need for artificial bank protection works and the associated destruction of natural bank habitat;
(ii) to provide for the terrestrial life stages of aquatic insects, for nesting of water-related bird species, and for bank dwelling small mammals;
(iii) to provide a "wildlife corridor" bringing more general benefits by linking a number of habitats and affording species a wider and therefore more robust and sustainable range of linked habitats;
(iv) to allow for the maintenance of a zone of natural character with vegetation that gives rise to a range of conditions of light and shade in the watercourse itself. This mix of conditions encourages proliferation of a wide range of aquatic species, including fish;
(v) to reduce the risk of accidental pollution from run-off.

We would also expect that any proposed bridge crossing of the Etherow will be of a clear spanning structure with abutments set well back from the rivers edge. This will maintain a continuous buffer strip and corridor that is available for colonisation and passage by wildlife and also reduce the risk of pollution from run-off.

A permit under the Environmental Permitting (England and Wales) Regulations 2010 would be required from the Environment Agency for any proposed works or structures, in, under, over or within eight metres of the top of the bank of the River Etherow, designated 'main river'. This was formerly called a Flood Defence Consent. Some activities are also now excluded or exempt. A permit is separate to and in addition to any planning permission granted. Further details and guidance are available on the GOV.UK website: https://www.gov.uk/guidance/flood-risk-activities-environmental-permits

Ground Investigation

Section 5.9 of the Scoping Report outlines that a ground investigation will be undertaken to inform the scheme design, to determine the ground and groundwater conditions.
We recommend that developers should:

1. Follow the risk management framework provided in CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.
2. Refer to the Environment Agency Guiding principles for land contamination for the type of information that we required in order to assess risks to controlled waters from the site. The Local Authority can advise on risk to other receptors, such as human health.
3. Consider using the National Quality Mark Scheme for Land Contamination Management which involves the use of competent persons to ensure that land contamination risks are appropriately managed.
4. Refer to the contaminated land pages on GOV.UK for more information.

Cont/d..

Should the applicant wish to discuss our comments in more detail or require further advice, we can offer a chargeable service. The applicant should be advised to contact us at spplanning.rfh@environment-agency.gov.uk if this would be useful.

If you have any queries, please do not hesitate to contact me.

Yours sincerely

Mr CHRIS WARING
Planning Specialist Sustainable Places

Direct dial 02030250486
Direct e-mail chris.waring@environment-agency.gov.uk

End

From:	Alison Cleland
To:	Trans-Pennine Upgrade Programme
Subject:	Your Reference: TR010034-000004. Our Reference: PE133392. Plant Not Affected Notice from ES Pipelines
Date:	22 November 2017 14:29:15

The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

22 November 2017

Reference: TR010034-000004

Dear Sir/Madam,

Thank you for your recent plant enquiry at (TR010034-000004).

I can confirm that ESP Gas Group Ltd has no gas or electricity apparatus in the vicinity of this site address and will not be affected by your proposed works.

ESP are continually laying new gas and electricity networks and this notification is valid for 90 days from the date of this letter. If your proposed works start after this period of time, please re-submit your enquiry.

Important Notice

Please be advised that any enquiries for ESP Connections Ltd, formerly known as British Gas Connections Ltd, should be sent directly to us at the address shown above or alternatively you can email us at: PlantResponses@espipelines.com

Yours faithfully,

Alan Slee
Operations Manager

From:	Enquiries
To:	Trans-Pennine Upgrade Programme
Subject:	Automatic reply: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Consultation
Date:	09 November 2017 12:04:43

Thank you for your email received by the Greater Manchester Combined Authority. We will endeavour to respond as soon as possible.

For more information about the Mayor of Greater Manchester or the GMCA please view our website www.greatermanchester-ca.gov.uk

From:	Dave.Adams2@hse.gov.uk on behalf of NSIP.Applications@hse.gov.uk
To:	Trans-Pennine Upgrade Programme
Subject:	NSIP - Proposed Trans Pennine Upgrade Scheme - EIA Scoping Consultation, HSE Response
Date:	06 December 2017 12:15:18
Attachments:	NSIP - Proposed Trans Pennine Upgrade Scheme - EIA Scoping Consultation, HSE PDF Response.PDF

Dear Dr Hunt,

Thank you for your letter of 9th November 2017 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the information attached is likely to be useful to the applicant.

Kind regards,

Dave Adams
Dave.MHPD.Adams
Land Use Planning Policy, Chemicals, Explosives & Microbiological Hazards Division, Health and Safety Executive.
Desk 76, 2.2, Redgrave Court, Merton Road, Bootle, Merseyside L20 7HS
+44 (0) 20 3028 3408 dave.mhpd.adams@hse.gov.uk
www.hse.gov.uk | http://hse.gov.uk/landuseplanning

HSE

Health and Safety Executive

CEMHD Policy - Land Use Planning
NSIP Consultations
Building 2.2, Redgrave Court
Merton Road, Bootle
Merseyside, L20 7HS

Your ref: TR010034
Our ref: 4.2.1.6170

HSE email: NSIP.applications@hse.gov.uk

FAO Dr Richard Hunt
The Planning Inspectorate
Temple Quay House
Temple Quay,
Bristol
BS1 6PN

Dear Dr Hunt

06 December 2017

PROPOSED TRANS PENNINE UPGRADE SCHEME (the project)
PROPOSAL BY HIGHWAYS ENGLAND (the applicant))
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as amended) – Regulations 10 and 11

Thank you for your letter of 9th November 2017 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's land use planning advice

Will the proposed development fall within any of HSE's consultation distances?

With reference to the extent of the scheme in drawings contained in document 'Trans-Pennine Upgrade Programme, Environmental Impact Assessment, Scoping Report, November 2017, Highways England', there are currently no Major Hazard Installations in the vicinity of the proposed scheme.

There are currently no Major Accident Hazard Pipeline(s) (MAHP) in the vicinity of the proposed scheme.

Although there are currently no Major Hazard Installations or Major Accident Hazard Pipeline(s) (MAHP) in the vicinity of the proposed scheme, should a Hazardous Substances Consent [The Planning (hazardous Substances) (England) 2015 Regulations (as amended)] be granted prior to the determination of the present application, and/or HSE receives a notification under the Pipeline Safety Regulations 1996 then HSE reserves the right to revise its advice.

Explosives sites

HSE has no comment to make as there are no licensed explosives sites in the vicinity.

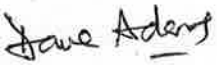
Electrical Safety

No comment, from a planning perspective.

Please send any further electronic communication on this project directly to the HSE's designated e-mail account for NSIP applications. Alternatively any hard copy correspondence should be sent to:

Mr Dave Adams (MHPD)
NSIP Consultations
2.2 Redgrave Court
Merton Road
Bootle, Merseyside
L20 7HS

Yours sincerely,



Dave Adams
CEMHD4 Policy

High Peak Borough Council

working for our community

7th December 2017

My ref:

Your ref:

Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol, BS1 6PN

Dear Sir or Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the Trans-Pennine Upgrade Programme (the Proposed Development)

Thank you for your letter inviting comments on the above. I have the following comments to make regarding the proposed scoping methodology.

General

Section 1.1.5;

**It is not entirely clear why potential pre –mitigation impacts are not / were not to be presented in this Report. This would benefit greatly the understanding of the proposals presented in the document.

This decision contradicts Highways England's Scoping Report structure, published in June 2017. The argument put forward is to ensure compliance with the DMRB manual, which also published by the Highways Agency. Given that the two documents are intrinsically linked, the former document would appear to have not been adopted, and one assumes this approach is consistent across the county. It is also worth noting that the decision to adopt this approach appears to have been taken by the publisher of this report (Highways, England) in discussion with Highways England.

Section 3.2.27; *this may not be applicable for this consolation but I feel it is worth noting - feel free to exclude*

Given the information preceding this section, the arguments presented against the "brown option "in this section are not appropriately justified (referenced). No information is presented (or referenced) supporting the apparent "dis- benefits" of the Brown Option, which included: bringing significantly more traffic to the area, increased air quality and noise issues. Possibly this reflects in a shift in the argument from human receptors (local authority) to the impacts on the wider peak park environment because the argument presented does not fit the former.

`

P O Box 136 Buxton SK17 1AQ
Phone 0845 129 77 77 or 01298 28400 Fax 01298 27639 Minicom 0845 129 48 76
E-mail customer-services@highpeak.gov.uk Website www.highpeak.gov.uk
Mobile Text No. 078 0000 2262

5.2 Air Quality

The proposed methodologies are generally appropriate but the following comments are made:

General

Minimal discussion for Particulate Matter (beyond regional assessment), it is assumed that this will still be in the detailed assessment (page 22) in this should be included in local assessment proposals (modelling).

5.2.1 Study Area

Whilst the requirements of DMRB (3.12), listed here are important they require a robust estimate of future traffic flow. The assessment should ensure that it captures the issue of potential compounding queuing traffic, particularly where properties are close to the road e.g. An area where peak traffic flow drops from say 20km to 5km, in an area where properties are close to the road and are already close to the AQ objective, could theoretically be missed.

5.2.2 Baseline Conditions

(5) High Peak has not seen the details of the monitoring conducted in the district. Is it proposed (or have) these monitoring location been continued, through into 2017. This could be included as an appendix to this report.

(6) High Peak has not seen the PCF Stage 2 AQ assessment details outlying the location of the sensitive receptors. This could be included as an appendix

5.2.3 & 5.2.4

Proposals are very general but appropriate, general comments cannot be made as no specific potential impacts are presented**.

5.2.5

The proposed assessment methodology (ADMS- Roads) is considered appropriate. The assessment should include particulate matter (not specifically noted in proposal).

5.7 Noise Impacts

The proposed assessment of noise impacts and mitigation are considered in section 5.7. In consideration of amenity impacts as set out paragraphs 11.1.34 to 11.1.40. The assessment of the construction phase is to be undertaken in accordance with the following British Standards (BS) BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014, Codes of practice for noise and vibration control on construction and open sites, noise and vibration. The operational impact of the proposed development will be considered under the Design Manual for Roads and Bridges -Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques Part 7 HD 213/11 – Revision 1 - Noise and Vibration (The Highways Agency). The scoped out impacts are set out in table 7.2.

The proposals are considered appropriate

5.9 Geology and Soils

The theory of the proposals are essentially fine but the should be structure in accordance with approach set out (noted in 5.9.5) in the Environment Agency's Model Procedures for the management of contaminated land (CLR 11). This should start with a conceptual site model of the route and proposed assessments / site history (here called baseline) should then inform what sampling should be undertaken during the risk assessment etc.

I trust that the above comments are of assistance.

Yours sincerely

X 

Signed by: Ben Haywood
Operations Manager – Development Services

Historic England

EAST MIDLANDS OFFICE

Mr Richard Hunt
The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The square
Bristol
BS1 6PN

Direct Dial: 01604 735460

Our ref: PL00222682

5 December 2017

Dear Mr Hunt

RE: TRANS-PENNINE UPGRADE PROGRAMME (A57) - SA SCOPING OPINION

Thank you for the consultation on the above Scoping Report for the associated NSIP project. Our response is set out with general overview comments and then more specific comments on cultural heritage, highlighting particular elements in respect of the scoping report.

General Comments

Historic England is the Government's statutory adviser on all matters relating to the historic environment in England. We are a non-departmental public body established under the National Heritage Act 1983 and sponsored by the Department for Culture, Media and Sport (DCMS). We champion and protect England's historic places, providing expert advice to local planning authorities, developers, owners and communities to help ensure our historic environment is properly understood, enjoyed and cared for.

The Trans-pennine Upgrade Programme could, potentially, have an impact upon designated heritage assets and their settings in the area around the site. In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.

We would also expect the Environmental Statement to consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest, since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk <http://www.heritagegateway.org.uk>) and relevant local authority staff.

We would strongly recommend that you involve the Conservation Officers and the archaeological advisors at the relevant local authorities for the project in the development of this assessment. They are best placed to advise on local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

Comments in respect of Cultural Heritage

Historic England would wish to make the following comments in respect of the scoping exercise and cultural heritage:

Section 5.3 - Cultural Heritage

The existing information is acknowledged and it is noted that the HER has been consulted. It is recommended that expert advice from local curators is sought throughout the process and which may assist with informing the proposed walkover survey, and it is noted that such dialogue is included within the assessment methodology at 5.3.5.

Whilst archaeological remains and non-designated heritage assets are noted within 5.3.5 there is no provision for assessment of other heritage assets which are of national importance such as Conservation Areas and Listed Buildings or Historic Landscape Character. Heritage Impact Assessment work may be required to inform design in respect of these assets and it is recommended that appropriate wording relating to this is included in the Scoping Report to ensure that these matters are explored sufficiently and appropriately at EIA stage. Such work could be linked with ZVI work proposed in Section 5.5 Landscape and Townscape Effects.

There are key synergistic links between Sections 5.3 Cultural Heritage and 5.5 Landscape and Townscape of the Scoping Report. It is recommended that these be explored to ensure that relevant information for both elements can be captured during the visual surveys and baseline photography (summer and winter) proposed for 5.5 Landscape and Townscape to inform the EIA as it moves forward. For example, ZVI work proposed in Section 5.5. Landscape and Townscape Effects could assist with HIA work for specific heritage assets such as the GII* church.

In respect of 5.3.3, Design, Mitigation and Enhancement Measures, the report sets out that ‘it may not be possible to avoid or mitigate all impacts’. Heritage Impact Assessment work as part of the ES process, for particular sites/areas where highlighted through DBA work, would assist with informing appropriate measures ensuring that loss or compensatory measures are a last resort.

Church of St Michael and All Angels GII*

We note that the two Grade II* listed buildings are proposed to be scoped out of the assessment. There is no concern about scoping out The Cross, but we recommend that the Grade II* Church of St Michael and All Angels is included in the assessment. The Church has a more imposing presence in the landscape and whilst the nearest part of the proposed bypass is some 500m or so away, it would be prudent for the ES to confirm that there is, in fact, no impact on the Church's setting by providing views to and from it in the visualisations proposed for Section 5.5 Landscape and Townscape.

Historic Landscape Characterisation

We also note that it is proposed to scope out Historic Landscape Characterisation (HLC) from the assessment and can advise we do not agree with this approach. It is noted that the scope has been set out in line with DMRB requirements but we would submit that the document is rather dated and currently undergoing a major revision as part of the current Roads Investment Strategy which Historic England will be commenting on at consultation stage.

In addition, the NSIP will be assessed against the Government's National Networks National Policy Statement (link below) which sets out that an applicant's assessment should include any significant effects during construction of the project and/or the significant effects of the completed development and its operation on landscape components and landscape character (including historic landscape characterisation) (Para.5.145):

(<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387223/npsnn-web.pdf>)

Furthermore, it is intrinsically linked to general landscape character which is proposed to be assessed in Section 5.5. The scoping report puts forward the view that modern interventions have been made to the landscape. However, whilst the local landscape has seen substantial modern interventions it still *has* historic landscape character parts of which relate to the present day setting of the scheduled Melandra fort and other high value heritage assets.

Without some appreciation of impacts upon the significance of the local historic landscape character the opportunity for that analysis to inform the design and detailing of route options and landscaping / planting / lighting etc is likely to be missed.

As such, Historic England recommends that Historic Landscape Character be included in the assessment and we would be pleased to discuss this further with the applicant in due course.

Buried archaeology

Historic England is of the view that the proposed scope of the assessment is rather limited and that moving forward the SA should consider additional factors.

For example, in Para.5.3.2 of the Baseline conditions existing information the earliest phase of human activity noted is the Bronze Age. However, our desk top search indicates there is also known Mesolithic activity in the area which would need to be taken into consideration and addressed appropriately in the SA. Of particular relevance is the Mesolithic activity on the south side of the river in the vicinity of the Melandra fort and within the 500m boundary set for non-designated heritage assets:

<http://www.pastscape.org.uk/hob.aspx?hob_id=306352>

In terms of additional information required to inform the ES (Para.5.3.2), given that the impacts of the proposed development on any sub-surface archaeological remains are likely to be substantial, it would be desirable for the acquisition of additional information to involve more than a heritage walkover survey.

Where ground investigations are taking place (i.e. as part of the study of Geology and Soils, p. 43) there is an opportunity to integrate the study and consider cultural heritage, i.e. ensure that geotechnical boreholes are undertaken with the involvement of a geoarchaeologist to enable an assessment of deposits across the route. This would considerably assist in the quest to gather data on currently unknown undesignated sub-surface archaeological remains by enhancing knowledge of the type of deposits, burial environments and states of preservation likely to be encountered along the route (e.g. are there any palaeochannels? What is the potential for palaeoenvironmental evidence of human activity in the area?).

The geoarchaeological investigations would also prove a valuable tool in allowing us to assess which geophysical survey techniques would be most effective on different parts of the landscape. If there is no suitable geotechnical programme planned in areas of high potential and impact - such as in the vicinity of the River Etherow - then it would be worth considering a standalone programme of geoarchaeological investigations. Historic England Science Advisors would be able to discuss this further with the applicant as the project progresses.

Design, Mitigation and Enhancement Measure (Para. 5.3.3)

> *"Potential mitigation measures may also include intrusive and nonintrusive investigations. These could include, but not be restricted to,* ***geophysics surveys,*** *trial trenching and archaeological evaluation.*

In the preceding paragraph it was noted that geophysical surveys should occur after

geoarchaeological investigations as geophysics may not always be the most appropriate survey technique, and other methods (such as test pitting) may be more likely to reveal the nature and extent of archaeological remains.

However, Historic England's view is that archaeological geophysical survey should form part of the additional information informing the ES, rather than solely being part of the mitigation as set out in the scoping report at present.

Para 5.3.6 'Assessment Assumptions and Limitations' sets out that 'the majority of such sites have never been subject to archaeological investigation to modern standards. Whilst this may often be the case, within the study area there have been a number of projects that provide a considerable base of archaeological knowledge to a relatively high contemporary standard e.g. the test pits excavated by the Tameside Archaeological Survey around Mottram in Longdendale and the archaeological studies and surveys carried out in association with previous iterations of this road scheme. Therefore the ES offers a considerable opportunity to integrate and build upon previous work, producing an ES of substance that effectively and efficiently identifies the significance of designated and non-designated buried archaeology.

Finally, in respect of buried archaeology we would recommend that the Historic England 'Preserving Archaeological Remains' advice is taken into account as part of the ES work:

<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

Significance criteria - Appendix A

The significance criteria does not set out the assessment in respect of heritage asset significance particularly well. We acknowledge the fact that there will always be a difficulty in transference of language between NPS/NPPF in respect of 'significant effects' and 'significance' but we consider this does need to be set out appropriately in order for there to be meaningful evaluation of the impact of the proposal on the significance of heritage assets and the historic environment.

For example, Table **11-7** needs to include reference to the *significance* of the elements of historic landscape character otherwise one cannot discern which changes to focus upon. This shortcoming is more striking in tables **11-5 and 11-6** (archaeological assets and historic buildings) which both also talk about change *to* elements rather than impacts upon their *significance* - this is reductive in that it shortcuts from an intervention in the landscape directly to an effect upon a material element / setting. To be able to understand the impact of a change as more or less harmful / beneficial one needs to frame that impact in terms of the effect upon the *significance* of the asset.

In **Table 11-8** the magnitude of impact versus value is potentially suitable, but will only work if the magnitude of impact axis is informed by a sound understanding of impact upon *significance* in **tables 11-5, 11-6, 11. 7** (significance being what makes an asset special or interesting) only then can we use table **11-8** to set those impacts against the relative value (importance) of the assets concerned.

Historic England recommends that the applicant revisit the National Policy Statement and NPPF to ensure consistency in the criteria approach to significance. The applicant may also wish to refer to the following Historic England documents in their considerations:

- Good Practice Advice Note 2 Managing Significance in Decision Taking in the Historic Environment (<https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/>)
- Good Practice Advice Note 3 Setting and Views (<https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>)

Summary

As set out above, there are four key areas of concern in respect of the scoping report. Firstly, provision should be made in the ES for consideration of Conservation Areas, Listed Buildings and HLC which is not set out at present in Para 5.3.5. Secondly, Historic England does not agree that the GII* listed church or HLC should be scoped out of the assessment for the reasons set out above. Thirdly, we would expect that much more scope would be made for buried archaeology within the ES moving forward. Finally, we would expect a more robust and sound approach to the understanding and assessment of the significance of cultural heritage within Appendix A than that which is currently put forward.

We look forward to engaging with PINS and Highways England further as the project progresses and would be happy to discuss any of the points raised above with the applicant in due course.

Yours sincerely,

Rosamund Worrall
Historic Environment Planning Adviser
Rosamund.Worrall@HistoricEngland.org.uk

Historic England

EAST MIDLANDS OFFICE

2nd Floor, WINDSOR HOUSE, CLIFTONVILLE, NORTHAMPTON, NN1 5BE

Telephone 01604 735460
HistoricEngland.org.uk

From:	John R Wright
To:	Trans-Pennine Upgrade Programme
Cc:	HDC
Subject:	Trans-Pennine Upgrade Programme -Scoping consultation
Date:	10 November 2017 09:38:29

Dear Sirs

I refer to your letter dated 9th November 2017 consulting Leicestershire County Council on the information to be provided in the Environmental Statement. I confirm on behalf of the Council that it does not have any comments to make.

John Wright

Team Manager Planning
Planning Historic and Natural Environment
Chief Executives Department
Leicestershire County Council
County Hall
Glenfield
Leicester
LE3 8RA
e-mail: john.wright@leics.gov.uk
Tel: 01163057041

From:	AULD, Alasdair E
To:	Trans-Pennine Upgrade Programme
Cc:	NATS Safeguarding
Subject:	RE: SG25400 TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Date:	09 November 2017 15:37:04

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully,

Alasdair Auld
On behalf of NERL Safeguarding Office

From: Trans-Pennine Upgrade Programme [mailto:Trans-PennineUpgradeProgramme@pins.gsi.gov.uk]
Sent: 09 November 2017 12:02
Subject: SG25400 TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed Trans Pennine Upgrade Programme.

Please note the deadline for consultation responses is **7 December 2017**, and is a statutory requirement that cannot be extended.

Kind regards,

Dr Richard Hunt

Senior EIA and Land Rights Advisor

Major Applications and Plans, The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol, BS1 6PN

Twitter: @PINSgov

National Grid house
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

Land and Acquisitions
Spencer Jefferies
Development Liaison Officer
Network management
Spencer.Jefferies@nationalgrid.com
Direct tel: +44 (0)7812 651481

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
Trans-PennineUpgradeProgramme@pins.gsi.gov.uk

07 December 2017

Dear Sir/Madam

APPLICATION BY HIGHWAYS ENGLAND FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE TRANS-PENNINE UPGRADE PROGRAMME (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION AND NOTIFICATION OF THE APPLICANT'S CONTACT DETAILS AND DUTY TO MAKE AVAILABLE INFORMATON TO THE APPLICANT IF REQUESTED

This is a response on behalf of National Grid Electricity Transmission PLC (NGET)

I refer to your letter dated 9th November 2017 regarding the future Order. NGET wish to express their interest in further consultation while the impact on our assets is being assessed.

In respect of existing NGET infrastructure, NGET will require appropriate protection for retained apparatus including compliance with relevant standards for works proposed within close proximity of its apparatus.

Electricity Transmission Assets in the vicinity of the proposed Order boundary:

- ZZC 400kv over - head line route (BREDBURY – STALYBRIDGE)
- 4ZO 400kV over-head line route (STALYBRIDGE - THORPE MARSH)

Where the Promoter intends to acquire land, extinguish rights, or interfere with any of NGET's apparatus, NGET will require appropriate protection and further discussion on the impact to its apparatus and rights.

Please see relevant guidance for working near NGET assets below.

National Grid house
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

Specific Comments – Electricity Infrastructure:

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset

- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for "overhead line clearances Issue 3 (2004) and also shown in the following National Grid Document: http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=6169

- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.

- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.

- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained using the contact details above.

- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.

- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation ("pillar of support") drawings can be obtained using the contact details above.

- National Grid Electricity Transmission high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide National Grid full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with National Grid prior to any works taking place.

- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

National Grid house
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

To view the SSW22 Document, please use the link below:
http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968

To view the National Grid Policy's for our Sense of Place Document. Please use the link below:
http://www2.nationalgrid.com/uk/services/land-and-development/publications/

To download a copy of the HSE Guidance HS(G)47, please use the following link:
http://www.hse.gov.uk/pubns/books/hsg47.htm

Further information in relation to in proximity to National Grid's apparatus can be found at:
http://www2.nationalgrid.com/UK/Safety/Library/

I hope the above information is useful. If you require any further information please do not hesitate to contact me.

Yours sincerely

Spencer Jefferies
Development Liaison Officer, Land and Acquisitions.

Date: 07 December 2017
Our ref: 231032
Your ref: TR010034-000004

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dr Richard Hunt
The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol, BS1 6PN

BY EMAIL ONLY

Dear Dr Hunt

Environmental Impact Assessment Scoping consultation (Regulation 15 (3) (i) of the EIA Regulations 2011): TR010034 - Trans-Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Location: Mottram Moor Link Road Scheme - Trans Pennine

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 09 November 2017

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law[1] and guidance[2] has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Andy Stubbs on 02080261978. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Yours sincerely

Andy Stubbs – Lead Adviser
East Midlands Sustainable Development

[1] Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)
[2] *Note on Environmental Impact Assessment Directive for Local Planning* Authorities Office of the Deputy Prime Minister (April 2004) available from http://webarchive.nationalarchives.gov.uk/+/http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/noteenvironmental/

Annex A – Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S.118 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (eg designated Special Areas of Conservation and Special Protection Areas) fall within the scope of The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations 2017'). In addition paragraph 118 of the National Planning Policy Framework requires

that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Requirements are set out within Regulations 62 and 63 of the Habitats Regulations, where a series of steps and tests are followed for plans or projects that could potentially affect a European site. The steps and tests set out within Regulations 62 and 63 are commonly referred to as the 'Habitats Regulations Assessment' process.

The Government has produced core guidance for competent authorities and developers to assist with the Habitats Regulations Assessment process. This can be found on the Defra website. http://www.defra.gov.uk/habitats-review/implementation/process-guidance/guidance/sites/

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites)
The development site is in proximity to the following designated nature conservation sites:

- South Pennine Moors Special Area of Conservation
- Peak District Moors (South Pennine Moors Phase 1) Special Protection Area

- Dark Peak Site of Special Scientific Interest

- Further information on the SSSI and its special interest features can be found at www.magic.gov . The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects

- Natura 2000 network site conservation objectives are available on our internet site http://publications.naturalengland.org.uk/category/6490068894089216

2.3 Regionally and Locally Important Sites
The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

Staffordshire Wildlife Trust
Address: The Wolseley Centre, Wolseley Bridge, Stafford, ST17 0WT.
Tel: 01889 880100
Email: info@staffs-wildlife.org.uk

Derbyshire Wildlife Trust
Derbyshire Wildlife Trust, Sandy Hill, Main Street, Middleton, Matlock, Derbyshire, DE4 4LR
Tel: 01773 881188.
Email enquiries@derbyshirewt.co.uk

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration…in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (eg from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (eg whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).
Greater Manchester Ecology Unit
Council Offices
Clarence Arcade
Ashton-under-Lyne
Tameside, OL6 7PT
Tel: 0161 342 4409
Email: info@gmwildlife.org.uk

Derbyshire Wildlife Trust also hold Local Biodiversity Records
Telephone: 01773 881188
or dataenquiries@derbyshirewt.co.uk

3. Designated Landscapes and Landscape Character

Nationally Designated Landscapes
As the development site is within/adjacent to Peak District National Park, consideration should be given to the direct and indirect effects upon this designated landscape and in particular the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the relevant management plan for Peak District National Park.

Landscape and visual impacts
Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the

cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

Heritage Landscapes
You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm.

4. Access and Recreation
Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way, Access land, Coastal access and National Trails
The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the adjacent/nearby Pennine Bridleway National Trail. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality
Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

Soil and Agricultural Land Quality

Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The applicant should consider the following issues as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether ‘best and most versatile’ agricultural land is involved.

   This may require a detailed survey if one is not already available. For further information on the availability of existing agricultural land classification (ALC) information see www.magic.gov.uk. Natural England Technical Information Note 049 - *Agricultural Land Classification: protecting the best and most versatile agricultural land* also contains useful background information.

2. If required, an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, eg one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, ie 1.2 metres.

3. The Environmental Statement should provided details of how any adverse impacts on soils can be minimised. Further guidance is contained in the *Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites*.

As identified in the NPPF new sites or extensions to new sites for peat extraction should not be granted permission by Local Planning Authorities or proposed in development plans.

6. Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation

The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 109), which should be demonstrated through the ES.

8. Contribution to local environmental initiatives and priorities

The proposed development is within an area that Natural England considers could benefit from enhanced green infrastructure (GI) provision. Multi-functional green infrastructure can perform a range of functions including improved flood risk management, provision of accessible green space, climate change adaptation and biodiversity enhancement,. Natural England would encourage the incorporation of GI into this development. Evidence and advice on green infrastructure, including the economic benefits of GI can be found on the Natural England Green Infrastructure web pages.

9. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;

d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, ie projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

From: CONTACTUS, England (NHS ENGLAND)
To: Trans-Pennine Upgrade Programme
Subject: Automatic reply: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Date: 09 November 2017 12:20:58

Dear Customer,

Thank you for contacting NHS Customer Contact Centre. We have received your email and a member of our Customer Service team will be respond to you in due course.

In the meantime, the following information may be able to help you access information immediately.

NHS England commissions or buys primary care services; for example, GPs, dentists, opticians, and pharmacy services. We also commission health and justice, military health services plus some specialised services. We can advise you how to access, give feedback or make a complaint about the services we commission.

NHS England does not commission secondary care (with the exception of Specialised Services). This includes hospital care, NHS 111 services, mental health services, out-of-hours services and community services such as district nursing. These services are commissioned by Clinical Commissioning Groups (CCGs). If you need advice about accessing secondary care, you should contact your local CCG. You can find their contact details using the service finder on the NHS Choices website .

You may also refer to the following links for further information about NHS England

https://www.england.nhs.uk/about/

https://www.england.nhs.uk/ourwork/

https://www.england.nhs.uk/resources/

https://www.england.nhs.uk/commissioning/

and https://www.england.nhs.uk/contact-us for details about the Customer Contact Centre, which also provides a number of FAQ's.

If you require medical attention, please contact your GP, call 111 or if you require urgent medical attention, please dial 999 or attend your local Accident and Emergency Department.

If, after receiving this automated response, you no longer think we can assist with your email, please reply to this email address stating '**NO FURTHER ACTION REQUIRED**' and we will not respond to your email.

Kind Regards

NHS England Customer Contact Centre team

* Please note our normal working hours are 08:00 to 18:00 from Monday to Friday and we regret the delay in reply over the non-working hours.

From:	PCCOffice@Derbyshire.PNN.Police.UK
To:	prvs=04825E1941=Trans-PennineUpgradeProgramme@pins.gsi.gov.uk
Subject:	Automatic Reply - Office of the Police and Crime Commissioner for Derbyshire
Date:	09 November 2017 12:01:49
Attachments:	TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation.msg

Thank you for contacting the office of the Police and Crime Commissioner for Derbyshire. Our normal working hours are Monday to Thursday 9:00am to 5:00pm and Friday 9:00am to 4:30pm (excluding bank holidays).

If you are contacting us from the media, please contact our media partner, Better Times, on 01283 821012 who should be able to respond more quickly.

If you are contacting us to report a crime please note, we cannot take crime reports on this e-mail. Please call 999 in an emergency or call 101 if your report is not urgent.

Thanks again for contacting the Derbyshire OPCC.

From:	donotreply@oldham.gov.uk
To:	prvs=04825E1941=Trans-PennineUpgradeProgramme@pins.gsi.gov.uk
Subject:	Thank you
Date:	09 November 2017 12:05:38

Thank you for your email.

This is confirmation we have received your message.

Kind Regards,

Planning and Infrastructure

Peak District National Park Authority
Tel: 01629 816200
E-mail: customer.service@peakdistrict.gov.uk
Web: www.peakdistrict.gov.uk
Minicom: 01629 816319
Aldern House . Baslow Road . Bakewell . Derbyshire . DE45 1AE

Dr Richard Hunt
Senior EIA and Land Rights Advisor
on behalf of the Secretary of State
The Planning Inspectorate
3D Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Your ref: TR010034-000004
Our ref: PE\2017\ENQ\31398
Date: 7th December 2017

Letter sent via e-mail

Dear Dr Hunt

Re: Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Highways England (the Applicant) for an Order granting Development Consent for the Trans-Pennine Upgrade Programme (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for contacting the Peak District National Park Authority with regard to the scoping of the Trans Pennine Upgrade Programme Environmental Impact Assessment. We welcome the opportunity to participate in this process.

The Peak District National Park Authority is the Planning Authority for the National Park and has two Statutory Purposes and one Statutory Duty, as defined by the Environment Act (1995). These are: -

i. To conserve and enhance the natural beauty, cultural heritage and wildlife of the National Park
ii. To promote opportunities for understanding and enjoyment of the Park's special qualities

In carrying out these purposes, our Duty is to seek to foster the economic and social well-being of local communities within the National Park.

Our response to this consultation is largely based around our Purposes and Duty, but does cover the area outside the Park boundary and the wider area of influence of the proposed scheme.

Our response to the scoping exercise is attached as an Annex to this letter, if you have any queries about any of content of our response then please contact me.

Yours sincerely

Tim Nicholson
Transport Policy Planner

Annex 1 – Trans-Pennine Upgrade Programme Environmental Impact Assessment Scoping Report

Response on behalf of the Peak District National Park Authority

Background

The Peak District National Park Authority is grateful for the opportunity to comment on the scope of the Trans-Pennine Upgrade Programme Environmental Impact Assessment. The Peak District National Park was the first of the British national Parks to be designated in 1951 and is located to the East of the villages of Mottram and Hollingworth, with the village of Tintwistle falling partially within the National Park boundary.

National Park Authorities are subject to two statutory purposes as set out within the National Parks and access to the Countryside Act (1949) and reiterated within Section 61 of the Environment Act (1995). These purposes are: -

i) The conserving and enhancing of the natural beauty, wildlife and cultural heritage of the National Park

ii) The promotion of opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

Section 62 of the Environment Act (1995) goes on to set out a statutory Duty for National Park Authorities, which is that in carrying out its statutory duties, it will seek to foster the economic and social well-being of local communities within the National Park. This section also places a duty on bodies undertaking work that affects land within a National Park to have regard to the two purposes given above.

This document constitutes a response on behalf of Officers of the Peak District National Park Authority offering comment and suggestion on the scope of the assessment. The response covers general points, detailed comments on individual elements being considered within the scope of the Assessment, and finally comments in relation to cumulative effects.

General Comments

The current proposed scheme lies beyond the Peak District National Park boundary, following the current removal of the A628 Climbing Lane proposals. However, whilst the proposed Mottram Moor and A57(T) to A57 Link Roads are located beyond the National Park boundary, the traffic modelling indicates a significant growth in traffic flows on roads within the National Park, including the A628(T), the A57 Snake Pass and the A6024 Holme Moss Road. Because of the location of these roads and the suggested shift of traffic from other routes onto these roads, there are also potential traffic growth implications for minor roads within the National Park that facilitate these shifts in flow.

A growth in traffic on these National Park roads may bring a number of implications for the designated sites of the National Park (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area), the quiet enjoyment of the National Park by its visitors, and the safety of all users of these roads. Similarly, the predicted growth in traffic is likely to have a negative effect on the Tintwistle Conservation Area and its setting.

It is worth noting that some of the roads which are expected to see an increase in traffic as a result of the scheme were recently highlighted by the EuroRAP assessment as being amongst the riskiest in the country, including the A57 (Snake Pass) and the A6204 (Holme Moss)[1]. It is not unreasonable to suppose that a heavy increase in traffic of the levels predicted may worsen this situation.

[1] http://roadsafetyfoundation.org/cutting-cost-dangerous-roads/

Because of the potential impact on the National Park of induced traffic flows, we would suggest that the Study Area for potential impacts of the scheme in relation to Air Quality, Noise & Vibration, Biodiversity, and People & Communities should include any roads within the National Park where there is an increase in traffic flow of more than 5% as a result of the scheme in the opening year. This would allow the full impact of the proposed scheme on the national Park to be fully understood, and any potential opportunities for mitigation and enhancement to be identified.

The Project Objectives include an environmental objective of "*avoiding unacceptable impacts on the natural environment and landscape in the Peak District National Park, and optimising environmental opportunities*". Because there is an expectation of a significant increase in traffic flows on roads within the National Park, through Tintwistle Conservation Area and through the designated sites, the Environmental Statement should demonstrate the ways in which this objective will be achieved.

Detailed Topic Based Comments

1) Air Quality

5.2.1 Study Area

The approach of setting the operational Study Area in relation to traffic flows is supported. Paragraph 3.29 of the DMRB Volume 11 Section 3 Part 1 HA207/07 refers to designated sites and the need to account for air quality impacts on those. Any significant increase in traffic flows along the A628 through the National Park is likely to affect air quality and potentially impact on the designated sites therein (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area). Because of this we would suggest that scoping out of these designated sites suggested on Page 32 may be inappropriate until a judgement has been made on the potential air quality impacts on the designated habitats.

IAN 174/13 (referred to in paragraph 5.2.3, page 21), suggests that sensitive receptors for designated sites and associated transects should be completed as set out in HA207/07. Because of the scoping out of the designated sites, this has not been undertaken. We would suggest that because of the potential air quality impacts on these designated sites, that this work be undertaken as part of the Environmental Statement.

The currently projected 8% increase in flows (fixed demand) along the A628 between Tintwistle and Flouch would meet the 1,000 increase in vehicle threshold for the study area to be extended along the length of the corridor. However, there are other routes which are expected to undergo high percentage increases as a result of induced flows from the two proposed link roads, but which are unlikely to breach the 1,000 vehicle threshold. Because of the designated sites that the roads fall within (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area), we would recommend including them within the Study area. These include the A57 Snake Pass and A6024 Holme Moss roads.

5.2.2 Baseline Conditions

(4) The paragraph refers to exceedance of the AQS within High Peak and the potential for this to lead to an AQMA for the area. The area of concern is inside the village of Tintwistle on the A628 and within the National Park boundary. It is therefore important that the Environmental Statement recognises this potential air quality impact on both the sensitive receptors within the village and on the National Park, and that this is acknowledged within the Statement.

The Pegasus crossing referred to within this paragraph lies within the Peak District National Park and acts as a crossing point for the Pennine Bridleway National Trail. As such, any exceedance of the AQS objective will impact on users of this National Trail. Because the proposed scheme is likely to increase vehicle flows by a significant amount, and with no change to the proportion of HGV traffic along the route, this could amount to a serious worsening of conditions at this location. Therefore, the Environmental Statement needs to recognise this potential air quality impact on both the National Park

and the National Trail, neither of which are referenced within this scoping document in relation to air quality.

(5) There is reference to the additional monitoring at 82 locations undertaken by Highways England, and where there are were recorded exceedances on particular routes, including the A57 and A628. There are a number of monitoring sites shown on Figure 5.2 that are along the M67 corridor. It would be useful to receive clarity within the Environmental Statement as to whether the scheme either causes or raises levels of exceedance at these locations in addition to those referenced.

5.2.3 Design Mitigation and Enhancement Measures

IAN 174/13 (referred to in paragraph 3), suggests that sensitive receptors for designated sites and associated transects should be completed as set out in HA207/07. Because of the scoping out of the designated sites, this has not been undertaken. We would suggest that because of the potential air quality impacts on these designated sites, that this work be undertaken as part of the Environmental Statement.

5.2.4 Residual Effects

(2) It is important that the potential residual effects of the scheme on air quality and on the AQMAs and the designated sites (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area) are included within the Environmental Statement.

5.2.5 Assessment Methodology

Local Air Quality Assessment – it is important that local air quality assessment encompasses all of the roads which may be affected by changes in air quality, including those that may not meet the current suggested 1,000 vehicle increase as a result of the scheme. Because of the importance of the designated sites, the potential impacts on these sites of increased airborne pollution should be included.

Regional Assessment – similarly, it is important that given the regional assessment is not limited to the north-west, but covers an area including all of the roads potentially experiencing high percentage or numerical growth in vehicles.

2) Cultural Heritage

5.3.1 Study Area

The proposed study area needs to take into account the very diverse topography of the area, and the proximity of the National Park. It might be that significant or designated heritage assets lie out with the 1km search zone. We would like to see this extended so that consideration could be given to the setting of the key assets (especially Grade II* and Grade I listed buildings, and scheduled monuments) that might lie outside the 1km zone (the results of the ZTV would be helpful here). Also, the text does NOT include the number of Grade II listed buildings in the 1km search area (although they are mapped). Because of the expected impact of increased traffic on the Tintwistle Conservation Area (a key designated heritage asset), we would wish to see the Study Area extended to include the whole of the Conservation Area.

For clarity, the 1km search area should be shown on Figure 5.4.

5.3.2 Baseline Conditions

Please see the earlier comment above in relation to the search area. It should be noted that there are more than 18 Grade II listed buildings in the 500m search area; however, the report only mentions the 18 in the Longdendale conservation Area.

Additional information required to inform the ES: Item (8), the heritage walkover survey needs to locate features to a 10m accuracy or better, and include photographs of selected features.

5.3.3 Design, Mitigation and Enhancement Measures

Item (2) should include borehole surveys and archaeological excavation.

5.3.4 Residual Effects

Item (1) the negative impact upon the setting of Melandra Roman fort during operation may also be significant. Similarly, negative impacts to Conservation Areas may extend beyond Mottram-in-Longdendale, particularly in respect to the residual impacts from increased traffic flows through the Tintwistle Conservation Area, as a result of the scheme.

5.3.5 Assessment Methodology

We would expect this section to reference more up to date guidance documentation, e.g.

- Chartered Institute for Archaeologists 2017 'Standard and guidance for historic environment desk-based assessment'
- Historic Environment Good Practice Advice Note 2 Managing Significance in Decision-Taking in the Historic Environment (HE 2015).
- Historic Environment Good Practice Advice Note 3 The Setting of Heritage Assets (HE 2015).
- Conservation Principles: policies and guidance (HE 2008) [a revision is currently under consultation, but the 2008 is still valid until the revision is published]

Similarly Item (2) is incomplete and needs these additions:

- Inspection of aerial photographs held by the Historic England Archive (including the National Mapping Programme) and accessible LIDAR sources, including analysis and feature plotting
- Assessment of data from the Portable Antiquities Scheme
- A statement of significance of the historic landscape and heritage features within it
- Setting assessment of key heritage features in tandem with/to inform the Landscape Visual Impact Assessment

5.3.6 Assessment Assumptions and Limitations

Item (2) another valid approach is that the assessment of potential archaeological deposits can be evaluated using intrusive techniques.

Item (3) the Grade II* Listed Buildings should NOT be scoped out; we do not currently have sufficient information on the historical significance of the landscape, their setting, the Conservation Areas and settings or potential impacts to scope these out. [in addition, in section 5.5.6 Item (2) states that no areas are to be scoped out which conflicts with the proposal to scope out the Grade II*].

Item (4) The National Park Authority does not hold the Historic Landscape Character Assessment data for this area, however, we would be suggest that scoping this out would be a decision for the Greater Manchester Archaeological Unit to decide. Whilst the historic landscape character is of more recent date, this does not automatically confer upon it a lesser significance; this needs to be established. There seems to be a misunderstanding within the scoping document that time depth equates to significance, this is not the case. The recent historic landscape character can be equally significant to that of an older date dependent upon context.

3) Biodiversity

5.4.1 Study Area

The preliminary fixed demand traffic modelling indicates that there will be a significant increase in traffic flows along the A628 within the National Park, including the maintenance of the proportion of HGV traffic as a result of the scheme. Similarly, there are two roads that are expected to undergo a significant percentage increase in vehicles (the A57 Snake Pass and the A6024 Holme Moss Road). All three of these roads are within designated sites (Dark Peak SSSI, South Pennine Moors Special Area of

Conservation and the Peak District Moors Special Protection Area). Therefore because of the potential operational impacts of the increased traffic flows on these routes, we would wish to see the Study Area extended to cover these roads within the National Park, rather than limiting it to 2km.

5.4.4 Residual Effects

The expected increase in traffic on those routes within the National Park is likely to lead to the following negative impacts: -

- Impact on the South Pennine Moors Special Area of Conservation and Dark Peak SSSI through the increased deposition of atmospheric pollutants (principally Nitrogen). The principal sensitive features to this deposition are likely to be Blanket Bog; Upland Heath; and Upland Flushes/Mires

- Impact on Peak District Moors Special Protection Area, Dark Peak SSSI, in particular breeding / ground nesting moorland birds; and Species of Principal Importance for Conservation under S41 of the Natural Environment & Rural Communities Act 2006 (in particular Mountain Hare) through increased visual and noise disturbance and road kill.

It is important that any such potential impact forms part of the Environmental Statement.

5.4.6 Assessment Assumptions and Limitations

(4) In light of the potential impacts on the Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area, we would expect all three to be considered within the scope of the assessment. We would also wish to see the following included as receptors: -

- Blanket Bog,
- Upland Heath
- Upland flushes / mires
- Moorland birds, including SPA species (peregrine falcon, short eared owl, merlin, and golden plover). Other moorland species that should be considered are curlew, red grouse, waders, lapwing, dunlin, ring ouzel.
- Mountain Hare

(7) We would wish to see the Peak District Moors Special Protection Area retained within the scope of the Environmental Assessment due to the potential impact on breeding moorland birds and mountain hare through visual and aural disturbance and road kill.

4) Landscape and Townscape Effects

5.5.1 Study Area

Whilst the physical works for the scheme are located outside the Park boundary, the residual effects of induced flow particularly on the A628(T) may bring visual impact for users of the National park including from National Trails including the Pennine Way, Trans Pennine Trail and Pennine bridleway. Some assessment of these visual and landscape effects should be considered.

5.5.2 Baseline Conditions

(1) The use of the Peak District Landscape Strategy would be welcomed, particularly as this would provide a baseline against which to judge any effects of the potential increase in traffic resulting from the scheme[2].

Bullet point 7 appears incorrect in relation to Figure 5.8 in that Figure 8 shows three Landscape Character types within the Dark Peak Western Fringe, rather than the three Landscape Character Areas referred to at this bullet (LCA Dark Peak Western Fringe, LCA Dark Peak and the LCA Dark

[2] http://www.peakdistrict.gov.uk/looking-after/strategies-and-policies/landscape-strategy

Peak Yorkshire Fringe). Consideration of these three Landscape Character Areas within the assessment would however, be welcomed.

It should be noted that the Pennine Bridleway, whilst shown on Figure 5.8 is not referenced within section 5.5.2.

There is a potential for both the completed scheme to have a visual impact on visitors to and the setting of the National Park. At present, this has not been considered within the scoping document, and therefore, it is therefore important that views from high ground within the National Park are used to assess this. An appropriate viewpoint(s) could be from the high ground on Tintwistle Low Moor.

Some consideration should be given to the setting of Tintwistle Conservation Area and buildings that contribute to that setting, and the significance of the Conservation Area.

A list of Grade II Listed buildings within the 1km boundary of the Study Area would be a useful element of the Environmental Statement.

5.5.4 Residual Effects

Because of the potential visual effect of increased traffic flows on the enjoyment of the National Park by its users, we would welcome the inclusion of baseline viewpoints from sensitive locations such as the Pennine Way and Trans Pennine Trails.

The Environmental Statement will also need to take account of the effect of the expected increased traffic flows on the Tintwistle Conservation Area and its setting.

5) People and Communities

Underlined text (in red) denotes suggested new text.
Strikethrough text (in red) denotes the suggested deletion of text.

5.6.2 Baseline Conditions

From Figures 5.11 and 5.4 we note the 500m Study Area is insufficient to properly include the Mottram in Longendale and Hollingworth communities (and the Mottram Conservation Area) that will be directly affected by the proposals. The Upgrade Programme is being proposed as the current road traffic density has a very significant negative impact on everyday life for these communities and therefore we suggest the Study Area should be wider, with 1km being more appropriate. A wider area of scoping coverage will help to give due account for the range of People and Communities factors for those communities which will be most affected by the Scheme.

Induced flows from operation of the Scheme, with Highways England estimating an 8% increase for the A628 and 9% increase for the A57 (Fixed Demand), with the increased traffic flows producing further adverse effects for Tintwistle and Glossop and the special qualities of the Peak District National Park. We would wish to see additional consideration for these communities, in particular the Tintwistle Conservation Area, and the proximity of the Peak District National Park.

We suggest the baseline conditions listed as bullet points at 5.6.1 should be expanded to give a brief comment/consideration to what might be included in the scoping of each of the asset types listed. Perhaps 5.6.2 should then follow up this list?
Community Facilities and Commercial Assets already considered and indicated on Figure 5.11 (Appendix B) include:

- Schools; Churches; Doctor's Surgeries; Health Centres; Other - Mottram Agricultural Showground.
- For consideration to be added to the above: Post Offices; Parks/Playgrounds; Bus services

Private Assets (2)

Should this section include community assets? For example, the Mottram Showground and Show (a non-profit making organisation) is a community asset. The Mottram Showground and Show will be seriously affected by the Scheme. Should there be a special mention about this and the community aspect? We understand Mottram Show has acquired a new larger show ground. Is this outside of the proposed Scheme? If not what is proposed to happen to the Showground and Show?

Access and Recreation (3)
The following rights of way and bridleway are either severed by or pass in close proximity to the Scheme.

- The Pennine Bridleway National Trail, available to horse riders, cyclists and walkers, has two alternative sections of route in the vicinity – [a] passing between Broadbottom and Hollingworth and [b] passing between Gamesley and the west side of Hadfield.
- Section [a], as detailed above, of the Pennine Bridleway National Trail (incorporating the Etherow Goyt Valley Way and Tameside Trail) crosses the A57(T) to A57 Link Road approximately 700m to the south of the A57 Mottram Moor to meet Wooley lane on the east of ~~Hadfield~~ Hollingworth. This section of the National Trail, ~~public right of way~~ is likely to be severed by the Scheme.
- Section [b], as detailed above, of the Pennine Bridleway National Trail (incorporating the Trans-Pennine Trail National Cycle Route 62) crosses the A57 at a point just inside the Red Line Boundary with the potential for the route to be severed. The crossing point corresponds with the junction of the A57 Link Road and existing A57 at Woolley Moor and special consideration will be given to the segregation of the Trail and its users from the road network.

In addition to the above, it should be noted that the Pennine Way and Trans Pennine Way are National Trails, which currently suffer from the severance effects of having crossings of the A628 and / or A57 Snake Pass. Any increase in traffic resulting from the scheme on these roads will worsen the situation, therefore, this needs to be accounted for in the production of the Environmental Statement.

Figure 5.7 needs to be revised to show both of the alternative sections of National Trail route and the Trans-Pennine Trail (National Cycle Route 62). Figure 5.7 has 'Public Right of Way (PROW)' in the Legend but the PROW's have not been delineated.

The scoping should provide additional consideration for the safety of horse riders and cyclists, particularly with regard to noise and surfacing, with appropriate mitigation during construction and sympathetic design for the segregation of the National Trail from the A57 link road.

We would hope the Scheme will showcase high quality landscape restoration and enhancement for the Pennine Bridleway National Trail with appropriate visual and noise screening and proposals for habitat enrichment.

It is also worth noting that currently, the A628 Pegasus Crossing at Tintwistle, which carries the Pennine Bridleway, is subject to an exceedance of the AQS with regard to Nitrous Oxides. Any increase in traffic through Tintwistle is likely to worsen this exceedance.

5.6.3 Design Mitigation and Enhancement Measures

Construction (1)

- In order to minimise disruption to footways, public rights of way or bridleways by severance, temporary diversions …

Operation (2)

- Several ~~footpaths~~ footways, public rights of way or bridleways would be permanently affected by the Scheme. Mitigation would …

Would hope to see scoping of sustainable transport and connectivity – public transport, walking, cycling – and how the Scheme might provide growth opportunities for sustainable travel modes as part of Environmental impact mitigation.

6) Noise and Vibration

5.7.1 Study Area

We would wish to ensure that the impacts on the village of Tintwistle are within the scope of the study, as those properties adjacent to the A628 through the village are likely to experience a daily increase in traffic of more than 1,000 vehicles with expected peak flows in the am & pm above a 24 hour average. It is likely that the ground-borne vibration associated with heavy goods vehicle climbing uphill and braking downhill will also increase.

Because of the predicted induced traffic flows on roads such as the A628 Woodhead, A57 Snake Pass and A6024 Holme Moss roads, and their association with relatively tranquil areas and the quiet enjoyment of the National Park, we would recommend ensuring that these are included within the Study Area. This is particularly pertinent because National Trails such as the Pennine Way and Transpennine Trails are likely to experience an increase in noise as a result of a predicted significant growth in traffic. The predicted increase in flows is also likely to have an impact on species within the designated sites along these routes (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area). This should also be within the scope of the Environmental Impact Assessment.

5.7.2 Baseline Conditions

Additional information required to form the ES

(2) Refers to the High Peak District Council; presumably this should be a reference to High Peak Borough Council.

The paragraph also refers to sensitive receptors that will inform the Environmental Statement. Because of the predicted increase in traffic flows, it would be useful to include sensitive receptors associated with the designated sites Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area. Similarly we would suggest that receptors associated with the Trans Pennine Trail, Pennine Bridleway and Pennine Way should be incorporated into the ES.

5.7.4 Residual Effects

Operation

The current traffic model indicates an increase in traffic flows along the A628 (Woodhead), A57 Snake Pass and A6024 Holme Moss roads. Therefore it would be useful to include an assessment of the noise impact that this has in relation to disturbance of users of the National Park, particularly on the National Trails. We would also wish to see a better understanding of the potential impact of additional disturbance on the designated sites (Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area) and their species.

7) Road Drainage and the Water Environment

The preferred scheme includes a junction with the existing A57 at Wooley Bridge. The new link road will cross over the River Etherow adjacent to this junction. According to the plans, a roundabout would be located within Floodzones 2 and 3 of the River Etherow. The footprint of the roundabout could act to restrict floodwater flows and it is suggested considerable weight should be given to the location, design and mitigation measures for both Construction and Operation that would produce minimal adverse effect upon Floodzones 2 and 3. The option of a signal controlled junction instead of roundabout may provide less of an obstruction to floodwaters but the design would need to provide highly efficient traffic flows.

Arnfield Reservoir and the other reservoirs higher up the Longendale valley should be considered in the scoping of flooding risk, to account for the possibility of a reservoir being emptied for maintenance or emergency. It is suggested that United Utilities might be included in the discussions as well as the Environment Agency and the Lead Local Flood Authority as identified at 5.8.3 (3).

From Figure 5.14, the area of 'sinks and issues' is wider than the 500m study area. It is suggested the Study Area is expanded to at least 600m to allow for this.

8) Geology and soils

Because there are no potential impacts within the National Park, we have provided no comments on this section.

9) Materials

Underlined text (in red) denotes suggested new text.
Strikethrough text (in red) denotes the suggested deletion of text.
5.10.1 Study Area

(2) Prioritisation will be given to the use of ~~Some~~ material resources ~~will~~ that originate onsite and are re-used onsite, such as excavated soil and cut and cover excavations ~~(that is re-used onsite)~~.

5.10.3 Design, Mitigation and Enhancement Features

Materials (1)

- Most material resources would be transported by road or rail, using the existing highway network. The proximity and special qualities of the Peak District National Park will be taken into account and road movements of material resources or waste will avoid the use of roads through the National Park wherever possible. The transport of materials onto site and waste off site would be reviewed by the appointed Contractor on an ongoing basis …

5.10.6 Assessment Assumptions and Limitations

(3) … the capacity of Derbyshire and Greater Manchester waste management …

10) Climate

5.11.1 Study Area

The approach of combining the Study Area with that of Greenhouse Gas emissions is a sensible one, but as stated within the air quality section, some recognition of percentage increases in flow across the network would be welcomed rather than restricting the Study Area to roads with an increase in vehicles of 1,000 or more. The reason for this is that there are likely to be a number of roads that cumulatively see increased flows of more than 1,000 vehicles, with associated greenhouse gas emissions. Whilst we recognise that a balance will need to be struck as to what the overall increase in flows associated with the scheme is; the geography of the roads along which induced traffic flows should also be recognised. For example the current modelling suggests marked percentage increases in flows on the A57 Snake Pass and A6024 Holme Moss Roads. Both of these roads are steep and twisting, crossing high summits in comparison to the routes from which the traffic is being in effect diverted. This is likely to result in the requirement for driving in lower gears, with marked acceleration and deceleration for tight corners. Both of these behaviours are likely to result in an increase in Greenhouse Gas and other emissions as a result. It is important that this is captured if the EIA is to truly reflect the wider impacts of the scheme.

Similarly with regard to climate change adaptation, it should be noted that a number of the roads potentially experiencing increased traffic flows as a result of the scheme are within Derbyshire (East Midlands) including the A628 east of Hollingworth and west of Salters Brook, the A57 east of the A57 (T) to A57 Link Road and the A6024 Holme Moss Road. The A57 Snake Pass is already subject to regular closures due to its underlying geology and the effects of heavy rain, drought and frost. Therefore, in assessing resilience to climate change and the effects of severe weather on the overall network which feeds or is fed from the scheme, these roads need to be taken under consideration.

This section states that 'The study area for climate change adaptation will comprise the north west region.' The scheme has the potential to bring about area wide traffic growth through induced flows from

operation of the Scheme, for example Highways England estimate traffic growth of 8% for the A628 and 9% growth for the A57. Highways England also indicates a general increase of traffic flows over a wide network of other roads.

This may in turn act to increase greenhouse gas emissions, including across the A628 and A57 Trans-Pennine routes through the sensitive environment of the Peak District National Park, and we would wish to see a further extent of the study area to take this into consideration. Delivery of the scheme may coincide with the greater availability and ownership of newer low emission vehicles. The scoping should include the investigation of road design and/or additional infrastructure that may help encourage the uptake of newer zero or low emission vehicles using the new road and connected routes.

Cumulative Effects

Overall the scheme is expected to increase traffic flows on the following National Park roads; A628 Woodhead, A57 Snake Pass and A6024 Holme Moss. This increase in traffic, which is a direct result of the proposed scheme, is likely to impact on sections of the National Park across the various topic areas, and it is important that this cumulative impact is reflected within the Environmental Statement. The potentially areas affected include: -

Designated sites: Dark Peak SSSI, South Pennine Moors Special Area of Conservation and the Peak District Moors Special Protection Area
These sites are likely to be to see an increase in noise and disturbance and a decrease in air quality leading to increased nitrogen deposition, affecting the habitats and species of these designated sites.

National Trails: Pennine Way, Trans Pennine Trail, Pennine Bridleway)
These trails are likely to see an increase in noise and disturbance and a decrease in air quality where they cross or run close to roads with increased traffic flows. The increase in traffic will also lead to greater severance for users and a loss of visual amenity.

Tintwistle Village and Conservation Area
Residents of Tintwistle are likely to experience a large increase in traffic flows resulting in a decrease in air quality, which may impact on the yet-to-be-declared High Peak Borough Council AQMA. There will also be an increase in traffic noise, with the corresponding increase in severance and loss of visual amenity. This is likely to negatively affect the setting of the Tintwistle Conservation Area.

Because the scheme is in and of itself expected to open up development land in and around the two proposed link roads, with the effects that this is likely to have on local traffic, it is important that this is factored in to any consideration of the predicted traffic impacts.

Similarly, as it is unlikely that this scheme will and of itself end the issues of congestion between the M67 Mottram junction and the eastern boundary of Tintwistle, some consideration should be given to any possible future remedial schemes, both local and strategic. There are two reasons for this: -

1) It is reasonable to assume that the currently proposed scheme should be complementary to any future proposals;

2) In undertaking a piecemeal approach to resolving the issues within the area, it is possible to overlook the both the cumulative benefits and impacts of any schemes. Because these affect the national asset which is the Peak District National Park, it is important that they are identified sooner rather than later.

Table 6-1: The Established ZOIs for Environmental Topics
The Cultural Heritage should not necessarily be limited to 1km – it depends on the significance of assets. Because of the topography, visual impact in particular could extend to assets that are more distant, although this is only likely to be a constraint for the most significant assets. Likewise, ‘setting’ is not considered to have a defined limit, so some flexibility must be given to the 1km area. The ZTV study may help to define this zone spatially.

Table 7-3: Environmental Topics Scoped Out with Justification
We currently have insufficient detail to understand the full impact on the Grade II* buildings or their setting so feel that they should not be scoped out.

The historic landscape character should not be scoped out purely on the basis that the character of the area has a high proportion of modern character types. This does not necessarily equate to a lack of significance.

Because of the potential impact of increased traffic flows on the species associated with it, we would suggest that the Peak District Moors (South Pennine Moors Phase 1) SPA should not be scoped out of the ES at this stage.

Appendices

Appendix A: Significance Criteria
11.1.12. The reference to Conservation Principles: Policies and Guidance is actually still 2008 (but note a revision is due soon, possibly in 2018).

Table 11-2, 11-3 and 11-4 do not take into account the assessment of 'value' as outlined in Conservation Principles: Policies and Guidance. This assessment must also take into account the evidential, historical, aesthetic, communal values (notwithstanding the possible changes to these concepts as a result of the forthcoming guidance revision).

Table 11-5
There needs to be an '**unknown'** row, for potential impacts on buried deposits for which we currently have no information.

Table 11-5 and 11-6
Alter the second sentence of each row, to relate the setting to the significance of the asset

Major: Comprehensive changes to setting that affect the significance of the asset.
Moderate: Considerable changes to setting that affect the significance of the asset.
Minor: Minor changes to setting that affect the significance of the asset.
Negligible: Very slight changes to setting that affect the significance of the asset.

Table 11-8:
There needs to be an '*unknown*' impact to allow for unknown buried archaeological deposits.

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Your Ref: TR050005
Our Ref: CIRIS 40503

5th December 2017

Dear Dr Hunt

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Trans-Pennine Upgrade Programme: Mottram Moor Link Road Scheme including A57(T) to A57 Link Road Scheme

Thank you for your letter of 9th November 2017, inviting Public Health England (PHE) to provide comments on the scoping opinion for the Environmental Statement (ES) relating to the above Nationally Significant Infrastructure Project (NSIP).

The comments below are provided on the basis that this stage is a precursor to an intensive and detailed assessment of the potential health impacts of the proposed development.

Our response focuses on health protection issues relating to chemicals, poisons and radiation. The advice offered is impartial and independent. In order to ensure that public health is comprehensively considered the ES should provide sufficient information to allow the potential impacts of the development on public health to be fully assessed.

We have reviewed the 'Trans-Pennine Upgrade Programme: Environmental Impact Assessment Scoping Report' document (dated November 2017) and accept the general approach proposed for assessing potential impacts on human health.

In order to assist the production of an ES, we have included an appendix which outlines the generic considerations that we advise should be addressed by all promoters when they are preparing an ES for an NSIP.

We note that a separate section summarising the public health impacts of the proposed development on public health is not proposed but is to be included within the Peoples and Communities chapter; we ask that this section be included, in line with the recommendations in the appendix that follows.

We note that assessment of PM_{10} and NO_2 will be carried out, but fine particulate matter ($PM_{2.5}$) within the air quality section is not proposed and further justification for this is not provided. $PM_{2.5}$ is of particular interest with regard to transport emissions and the impact of air quality upon public health. We would therefore request that this be considered in the air quality assessment.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Our view is that the assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal. Where a promoter determines that it is not necessary to undertake detailed assessment(s) (e.g. undertakes qualitative rather than quantitative assessments), if the rationale for this is fully explained and justified within the application documents, we consider this to be an acceptable approach.

We will provide further comments when the ES becomes available.

Yours sincerely

Sian Morrow
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Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA[1]. It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the proposal. Assessment should consider the development, operational, and decommissioning phases.

The EIA Directive[2] requires that ESs include a description of the aspects of the environment likely to be significantly affected by the development, including "population". The EIA should provide sufficient information for PHE to fully assess the potential impact of the development on public health. **PHE will only consider information contained or referenced in a separate section of the ES summarising the impact of the proposed development on public health**: summarising risk assessments, proposed mitigation measures, and residual impacts. This section should summarise key information and conclusions relating to human health impacts contained in other sections of the application (e.g. in the separate sections dealing with: air quality, emissions to water, waste, contaminated land etc.) without undue duplication. Compliance with the requirements of National Policy Statements and relevant guidance and standards should be highlighted.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, the EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES[3].

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial and

[1] Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from: http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/documents/planningandbuilding/pdf/151087

[2] Directive 85/337/EEC (as amended) on the assessment of the effects of certain public and private projects on the environment. Available from: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1985L0337:20090625:EN:PDF

[3] DCLG guidance, 1999 http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf

industrial premises; and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land; surface and groundwater; and drinking water supplies, such as wells, boreholes and water abstraction points.

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential impact on public health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should also ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

Emissions to air and water

Significant impacts are unlikely to arise from sites which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary

- should encompass all pollutants which may be emitted by the development in combination with all pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment

- should consider the construction, operational, and decommissioning phases, as appropriate

- should consider the typical operational emissions, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts

- should fully account for fugitive emissions

- should include appropriate estimates of background levels

- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)

- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data

- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)

    - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1

    - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion

- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the development, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed development on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air

When considering a baseline (of existing air quality) and in the assessment and when considering future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)

- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)

- should include modelling taking into account local topography

Additional points specific to emissions to water

When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts

- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)

- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure

- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc.) alongside assessment of potential exposure via drinking water

Land quality

We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed[4] and the potential impact on nearby receptors and control and mitigation measures should be outlined.

Relevant areas outlined in the Government's Good Practice Guide for EIA include:

[4] Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

- effects associated with ground contamination that may already exist

- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination

- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste

The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the development the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options

- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

Other aspects

Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report[5], jointly published by Liverpool John Moores University and PHE, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: “Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible.” PHE supports the inclusion of this information within EIAs as good practice.

Electric and magnetic fields (EMF)

This statement is intended to support planning proposals involving electrical installations such as substations, underground cables and overhead lines. PHE

[5] Available from: http://www.cph.org.uk/publication/health-risk-perception-and-environmental-problems/

advice on the health effects of power frequency electric and magnetic fields is available in the following link:

https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields

There is a potential health impact associated with exposure to the electric and magnetic fields produced around substations, power lines and cables. The following information provides a framework for considering the health impact, including the direct and indirect effects of exposure.

Policy Measures for the Electricity Industry

In 2004, the Government adopted the exposure guidelines published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) within the framework of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC). In 2009, one additional precautionary policy was introduced relating to the optimum phasing of high-voltage power lines. The National Policy Statement for Electricity Network Infrastructure EN-5 confirms these policies, and the Department of Energy and Climate Change (DECC) has published two accompanying Codes of Practice, agreed between the Energy Network Association and the Government, which specify how the guideline compliance and the optimum phasing requirements are implemented:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

A companion code of practice dealing with indirect effects of exposure to power frequency electric fields is also available:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect was published by one of PHE's predecessor organisations (NRPB) in 2004 based on an accompanying comprehensive review of the scientific evidence:

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, the Government policy is that the ICNIRP

guidelines are implemented in line with the terms of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthprotection/DH_4089500

Static magnetic fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power frequency electric and magnetic fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m^{-1} (kilovolts per metre) and 100 μT (microtesla). The reference level for magnetic fields changes to 200 μT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects.

Long term effects

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for implementing precautionary measures for extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government:

http://www.emfs.info/policy/sage/

SAGE published its First Interim Assessment in 2007, recommending various low cost measures aimed at reducing exposure. One of the recommendations was the introduction of optimal phasing of dual circuit high voltage power lines, which the Government supported in its response published in 2009. Government was also asked to consider the option to create corridors adjacent to high voltage power lines on health grounds; however, this was not supported as it was regarded to be disproportionate given the evidence base on the potential health risks arising from exposure. The full Government response to SAGE's First Interim Assessment is available here:

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

SAGE also called for more information to be made available to the public on the possible health consequences of power frequency electric and magnetic fields, and the Health Protection Agency developed new web material, which is available here:

http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/UnderstandingRadiationTopics/ElectromagneticFields/ElectricAndMagneticFields/

Liaison with other stakeholders, comments should be sought from:

- the local authority for matters relating to noise, odour, vermin and dust nuisance;
- the local authority regarding any site investigation and subsequent construction (and remediation) proposals to ensure that the site could not be determined as 'contaminated land' under Part 2A of the Environmental Protection Act 1990;
- the local authority regarding any impacts on existing or proposed Air Quality Management Areas;
- the Food Standards Agency for matters relating to the impact on human health of pollutants deposited on land used for growing food/ crops;
- the Environment Agency for matters relating to flood risk and releases with the potential to impact on surface and groundwaters;
- the Environment Agency for matters relating to waste characterisation and acceptance; and,
- The relevant local authority Directors of Public of Public Health for Tameside, and Sheffield for matters relating to wider public health.

Environmental Permitting

Amongst other permits and consents, the development may require an environmental permit from the Environment Agency to operate (under the Environmental Permitting (England and Wales) Regulations 2010). If so, any permitted activity will need to comply with the requirements of best available techniques (BAT). PHE is a consultee for bespoke environmental permit applications and will respond separately to any such consultation.

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES

- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used

- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account

- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach[6] is used

[6] Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24

Trans Pennine Upgrade Programme

Royal Mail Group Limited comments on information to be provided in applicant's Environmental Statement

Introduction

Reference the letter from PINS to Royal Mail dated 9 November 2017 requesting Royal Mail's comments on the information that should be provided in Highways England's Environmental Statement for the proposed Trans Pennine Upgrade Programme.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report as submitted to PINS on 8 November 2017.

Royal Mail– relevant information

Royal Mail is responsible for providing efficient mail sorting and delivery nationally. As the Universal Service Provider under the Postal Services Act 2011, Royal Mail has a statutory duty to deliver mail to every residential and business address in the country as well as collecting mail from all Post Offices and post boxes six days a week.

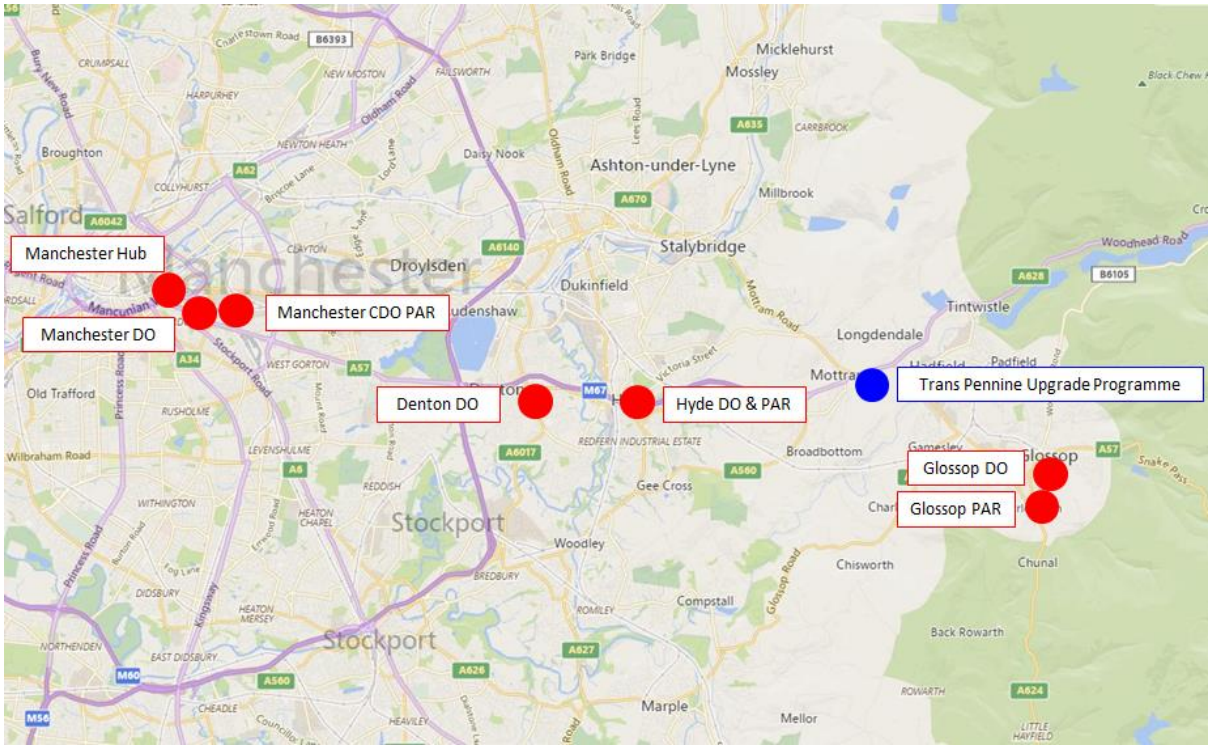
Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Royal Mail therefore wishes to ensure the protection of its future ability to provide an efficient mail sorting and delivery service to the public in accordance with its statutory obligations which may potentially be adversely affected by the construction and operation of this proposed road scheme.

Royal Mail's has eight operational properties within 10.2 miles of this proposed new road scheme as listed and shown on plan below:

BE 2566	Glossop DO	4 Victoria Street, Glossop SK13 8AA	2.9 miles
BE 4200	Glossop PAR	Victoria Street, Glossop SK13 8HZ	2.9 miles
BE 2576	Hyde DO	Hamnett Street, Hyde SK14 1AA	3.3 miles
BE 3767	Hyde PAR	John Street, Hyde SK14 2HQ	3.3 miles
BE 2546	Denton DO	Saxon Street, Manchester M34 6AA	4.9 miles
BE 4292	Manchester CDO PAR	Devonshire Street North, Manchester M12 6JH	9.5 miles
BE 3659	Manchester Central DO	40 Higher Ardwick, Manchester M12 6DA	9.5 miles
BE 357	Manchester HUB	Unit 5-6 Downing Street Industrial Estate, Manchester M12 6HH	10.2 miles



The M67 and the A57 are both important strategic distribution routes for Royal Mail operational traffic. Also, in exercising its statutory duties Royal Mail vehicles use on a daily basis all of the local roads that may potentially be affected by additional traffic arising from the construction of the proposed new dual carriageways and associated infrastructure.

It is envisaged that the proposed Trans Pennine Upgrade Programme will, once constructed, improve road capacity which will have benefits for Royal Mail operational traffic movements. However, Royal Mail is concerned about the potential for disruption to its operations during the construction phase.

Royal Mail's comments on information that should be provided in Highways England's Environmental Statement

In view of the above, Royal Mail has the following comments / requests:

1. The ES should include information on the needs of major road users (such as Royal Mail) and acknowledge the requirement to ensure that major road users are not disrupted though full advance consultation by the applicant at the appropriate time in the DCO and development process.

2. The ES and DCO application should include detailed information on the construction traffic mitigation measures that are proposed to be implemented by Highways England / its contractor, including a draft Construction Traffic Management Plan (CTMP).

3. Royal Mail is fully pre-consulted by Highways England / its contractor on any proposed road closures / diversions/ alternative access arrangements, hours of working and the content of the CTMP. The ES should acknowledge the need for this consultation with Royal Mail and other relevant major road users.

Royal Mail is able to supply Highways England with information on its road usage / trips if required.

Should PINS or Highways England have any queries in relation to the above then in the first instance please contact Holly Trotman ***(holly.trotman@royalmail.com)*** of Royal Mail's Legal Services Team or Daniel Parry-Jones ***(daniel.parry-jones@bnpparibas.com)*** of BNP Paribas Real Estate.

From:	Customer
To:	Trans-Pennine Upgrade Programme
Subject:	Automatic reply: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Date:	09 November 2017 12:02:02

Hello

This is an automated reply from the SGN Customer Service team.

Thank you for your email, to help us reply as quickly as possible, if not already provided, please send the following key information:

1. All your contact details (name, company name, address and phone number)
2. The full address and postcode of the site
3. Any reference numbers you may have

If you have any more information you'd like to provide, please send it on to customer@sgn.co.uk.

In the meantime you may want to visit sgn.co.uk to find out more about our company or view our Customer Charter.

Thank you for getting in touch with us, one of our colleagues will contact you shortly.

If you smell gas or are concerned about gas safety, please call the National Gas Emergency Service on 0800 111 999.

STOCKPORT
METROPOLITAN BOROUGH COUNCIL

Planning Services
Place Directorate, Stopford House,
Piccadilly, Stockport SK1 3XE

Contact: Mark Jordan
Telephone: 0161 474 3557
Email: Mark.Jordan@Stockport.gov.uk
Website: www.stockport.gov.uk/planning

Date: 20th November 2017

Mr Richard Hunt
3D Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Mr Richard Hunt,

Reference: DC/067709
Proposal: Scoping consultation - Trans Pennine Upgrade Programme.
Location: Mottram Moor To A New Junction On The A57 At Brookfield

I acknowledge receipt of your application received in my office on 9th November 2017 relating to the above proposed development. I also acknowledge receipt of £ .00 as payment for determination of the application. Your application has been checked to make sure everything is in order and if for any reason it is later found to be invalid, you will be informed as soon as possible.

Every effort will be made to ensure a speedy decision although many applications do require considerable consultation with other interested parties and adjoining property owners. This can at times prove time-consuming.

If you have not received a decision by 4th January 2018 I will let you know why and ask you for more time to deal with it. Should you not agree to an extension of time you are able to Appeal to the Planning Inspector against non-determination of the application. Alternately the Authority will determine the application based on the information to hand.

If you do not agree with how the application is described, or you have any queries concerning your application, it is important that you contact Mark Jordan, the Case Officer who will be dealing with your application, as soon as possible.

Please be aware that your proposal may require consent under the provision of the Building Regulations and you are advised to contact Building Control Officers at the above address (Telephone 0161 474 3559)

Progress details of the application including consultation and publicity undertaken and relevant policy constraints can be found on the web site at:

www.stockport.gov.uk/planningdatabase

Please note:
If you have an “Anonymous Call Rejection” service on your telephone, which stops callers who withhold their phone number contacting you, you will be unable to receive any calls made from the Town Hall switchboard, including any return calls.

Please mention this when leaving messages in order that alternative arrangements can be made or, alternatively leave a mobile number.

Yours sincerely,

Emma Curle - BSc (Hons) MRTPI
Chief Planning Officer

Tameside Metropolitan Borough

PLACE DIRECTORATE

ASHTON-UNDER-LYNE · AUDENSHAW · DENTON · DROYLSDEN · DUKINFIELD · HYDE · LONGDENDALE · MOSSLEY · STALYBRIDGE

Robin Monk
Executive Director

Ashton Market Hall, Market Street,
Ashton-under-Lyne, OL6 7JU
www.tameside.gov.uk

Ask for
Direct Line 0161 342 3920
Twitter @tmbc_places

email: nigel.gilmore@tameside.gov.uk

Your Ref: TR010034-000004
Our Ref
Doc Ref
Date: 6th December 2017

FAO: Dr Richard Hunt
3D Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Sir

Trans-Pennine Upgrade Programme Environmental Impact Assessment Scoping Report

Thank for your letter in respect of the above scoping report dated 9th November 2017 received on 13th November 2017 asking for additional information and comment on its contents.

Overall the scoping report appears to be comprehensive and establishes a positive narrative for the future scope of the Environmental Statement required for the Trans-Pennine Upgrade Programme for:

- Mottram Moor Link Road Scheme
- A57(T) to A57 Link Road Scheme.

The full history of the initiative, as set out in the text at the beginning of the report, is well documented within Tameside. It also notes the development of the current scheme initiative cumulating in the non-statutory public consultation held between 13 March 2017 and 10 April 2017.

The following represents Tameside's comments and suggested amendments in respect of the documentation.

1. **Sections 5.3, Cultural Heritage**: There are no comments to make on the scope of this section, which is considered to be comprehensive. It is noted that the Residual Effects at 5.3.4 identify that impacts on the setting of Mottram in Longdendale Conservation Area and some of the Grade II listed buildings are predicted to be significant during construction and operation. Consequently, consideration will need to be given to how these impacts may be mitigated once they have been assessed.

2. **Section 5.6, People and Communities**: Paragraph 5.6.2(4) dealing with "Development Land" states that there is no development land allocated in the vicinity of the scheme. This is correct in terms of adopted allocations but reference should be made to draft allocations adjoining the western end of the proposed bypass in the consultation draft Greater Manchester Spatial Framework (GMSF). It is acknowledged that the GMSF is at a very early stage but the scoping document should as a minimum recognise these draft allocations. The draft allocations can be

viewed at: https://mappinggm.org.uk/gmsf-consultation-2016/#os_maps_light/10/53.5069/-2.3201

3. **Section 6.3, Assessment of Cumulative Effects**: A reference to draft GMSF allocations should also be made in section 6.3, Assessment of Cumulative Effects. Furthermore although the process of creating a short list of "other development" is explained in sections 6.3.4-6.3.7, the threshold criteria is not made clear, nor are there any identification of what other developments were included on the "long list". The resulting table of cumulative developments does not fully reflect the matrix approach recommended at Appendix 1 of the Planning Inspectorate's Advice Note 17: Cumulative Effects Assessment. This section of the scoping report should be visited to provide a more transparent application of the approach to shortlisting.

   Finally, this section does not appear to have considered development proposals in the Hattersley Area which sits within the Zones of Influence at the western end of the proposed bypass. These sites may be identified within the Council's Land Supply Update 2016. The sites may be found at https://www.tameside.gov.uk/planning/ldf/evidence/shlaa where there is a searchable spread sheet with listed sites

4. **Section 5.4, Biodiversity**: There is general agreement with the overall scope of the Ecological Receptors identified in Section 5.4 of the Scoping Report. At this stage it is not considered that additional Receptors need to be "scoped in". Furthermore Tameside would not disagree with the scope of the ecological surveys described and consider that additional surveys required to inform the proposals are not necessary.

5. **Other comments**: It is recommended:
   - That the Environmental Impact Assessment (EIA) fully considers the need for the development to achieve net gain for biodiversity where possible, in line with paragraph 109 of the National Planning Policy Framework.
   - That the EIA fully considers the need to avoid landscape and habitat fragmentation wherever possible and the need to retain and where achievable, enhance landscape connectivity.
   - That any lighting schemes designed for the scheme minimise light spill and take into account the needs of nocturnal wildlife.

6. It is also noted that further consultation with Natural England is required to determine the need for the application for development consent to be supported by a Habitats Regulations Assessment (HRA) because of potential harmful impacts on sensitive habitats within the Peak District Moors (South Pennine Moors Phase 1), Special Protection Area (SPA) and South Pennine Moors Special Area of Conservation (SAC). It is recommend that the Screening exercise for the HRA fully takes into account the scope of new development proposed for the area as part of the developing Tameside Local Plan process and the draft Greater Manchester Spatial Framework (GMSF) as noted above. These Plans may have a bearing on the cumulative impact of the road scheme (potentially increasing in combination effects).

7. Tameside does not necessarily concur with the all the areas of scoped out work contained in the document.

   Table 7.2 notes that for Road Drainage and the Water Environment "the residual effects for the operational phase are not expected to be significant." Is this considered to be the correct approach in this instance?

   With reference to section 2 above and Table 7.3, Development and Employment Land forming part of the People and Communities the scoping out of the potential strategic employment sites does not take cognisance of those contained within the draft Greater Manchester Spatial Framework and elsewhere.

The Environmental Impact Assessment Scoping Report is the first stage in developing an Environmental Statement for the two initiatives listed above. The additional information and comment made in this response should further enhance this report. Tameside looks forward to receiving the future Environmental Statement as the scheme develops into the next stage.

Yours faithfully,

Nigel Gilmore
Head of Strategic Infrastructure
Development and Investment

From:	assetrecords@utilityassets.co.uk
To:	prvs=04825E1941=Trans-PennineUpgradeProgramme@pins.gsi.gov.uk
Subject:	Re: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Date:	09 November 2017 12:12:26

Thank you for recently contacting Utility Assets plant record department. We will check whether we have any plant present at your site and contact you within 5 - 7 working days ONLY if we own any plant in the vicinity.

If we do not reply, we do not have any apparatus in the area of your works. However, PLEASE TAKE CARE when excavating around electricity cables in the event that not all cables present may be accurately shown. We recommend you use detecting equipment to map the site before excavating and fully comply with HSG47. DO NOT assume that a cable is dead if you don't have a record of its presence. The cable must be treated as live unless PROVEN DEAD by the cable owner. In case of emergency please contact your local electricity distribution company.

This is an automated reply from our dedicated asset records email address. If you receive further correspondence from us it will be from asset.manager@utilityassets.co.uk quoting a site reference number.

Asset Manager - Utility Assets Ltd

From:	Danielle Thomas on behalf of Dig
To:	Trans-Pennine Upgrade Programme
Subject:	RE: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation
Date:	15 November 2017 12:15:06
Attachments:	image001.png

Good afternoon

With regards to your below request, this is not Wales & West Utilities area. This falls within Cadent's area, contact details for them below:

Email: plantprotection@cadentgas.com
Telephone: 0800 688588

If you have any further questions please don't hesitate to contact me. Many thanks

Kind Regards,

Danielle Thomas
Plant Protection Team
Administrator Assistant

Telephone: **02920 278 912**
Email: Danielle.Thomas@wwutilities.co.uk

Wales & West Utilities Ltd | Wales & West House | Spooner Close | Celtic Springs | Newport | NP10 8FZ

From: Trans-Pennine Upgrade Programme [mailto:Trans-PennineUpgradeProgramme@pins.gsi.gov.uk]
Sent: 09 November 2017 12:02
Subject: TR010034 - Trans Pennine Upgrade Scheme - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed Trans Pennine Upgrade Programme.

Please note the deadline for consultation responses is **7 December 2017**, and is a statutory requirement that cannot be extended.

Kind regards,

Printed on paper from well-managed forests and other controlled sources.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ
Highways England Company Limited registered in England and Wales number 09346363