Tameside MBC

Trans Pennine Upgrade Programme

A57 Link Roads Local Impact Report

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Contents

1 Introduction

1.1 Purpose of the report

This Local Impact Report (LIR) has been prepared by Arup on behalf of Tameside Metropolitan Borough Council (MBC), in response to Highways England's, now National Highways, application for a Development Consent Order (DCO) which will enable construction of the A57 Link Roads.

The A57 Link Roads project was formerly known as the "Trans-Pennine Upgrade" and is referred to as the "Mottram Moor Link Road and A57 Link Road project" in the Government's second Roads Investment Strategy (RIS2).[1]

The proposed scheme is identified as a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(g) of the Planning Act 2008, as amended by the Localism Act 2011. This means there is a requirement for National Highways (as the applicant) to make an application to the Planning Inspectorate under Section 37 of The Planning Act 2008 for a DCO to authorise construction of the scheme.

1.2 Terms of Reference

The purpose of this LIR, with reference to Section 60 (3) of the 2008 Planning Act, is to provide "a report in writing giving details of the likely impact of the proposed development on the authority's area.". It is noted that in coming to a decision on the DCO, the Secretary of State must have regard to this LIR (and indeed any submitted by High Peak / Derbyshire).

This includes a statement of positive, neutral and negative local impacts within a structured report as set out in the PINS guidance[2]. The report is not required to contain a balancing exercise between these impacts. This is the role of the Examining Authority. The LIR can also make reference to DCO articles, requirements and obligations that the local authority consider ought to be included.

The report, therefore, is intended for the authority to aid in the application of the scheme and appraisal of its compliance with policy and guidance. Local authorities are well placed to appreciate the impacts of proposals, particularly in this instance, in terms of DCO obligations under Section 174 of the 2008 Planning Act.

To inform this LIR, evidence has been gathered from the application's Environmental Statement (ES) (June 2021) along with other relevant application documentation, policy and guidance documents, and thorough discussions with relevant Tameside Council Officers and relevant external parties to gather further context on the scheme and its impacts. It is important to note that the LIR does not replicate the Environmental Impact Assessment (EIA), or any assessment

[redacted]

previously produced in respect of the site, such as those included in National Policy Statements.

To note that this report has relied on the information made available through primarily the ES and has conducted additional primary research through discussions with key Officers and stakeholders at the time of writing, October 2021.

1.3 Structure of the report

This report first sets out site context, including site description and details of the proposal; followed by planning context which includes relevant planning history, emerging proposals, and a review of local and national policy and guidance.

The report then describes the construction and operation impacts (i.e., positive, neutral, negative) of the proposal on the local area and whether additional mitigation may be required, focusing on the following topics:

- Economic growth and transportation;
- Noise and vibration;
- Geology, soil and ground conditions;
- Material impacts on the scheme;
- Air quality;
- Landscape and visual impacts;
- Archaeology and cultural heritage;
- Ecological and nature conservation;
- Road drainage and water quality;
- Construction traffic; and
- Road safety.

Finally, the conclusion provides the cumulative effects of the scheme and a summary of the impacts detailed in the LIR.

2 Site context

Greater Manchester (GM) is a vibrant, dynamic and diverse city-region, which plays an integral role in the economic and social fabric of the country. Consisting of ten local authority areas, Tameside lies to the east of the GM area, at the gateway to the Pennines and towards the wider Sheffield City Region. Cross Pennine road and rail connectivity has long been subject of criticism and seen as a potential barrier to economic growth across the North of the country.

The A57(T) and A628(T) strategic roads between Manchester and Sheffield and Barnsley respectively currently suffer from heavy congestion. Much of this traffic travels through local roads, which results in unreliable and unsafe journeys, and poor air and noise quality. The route also prevents the efficient or predictable delivery of goods across the region and commuting for work or education purposes is not considered straightforward. This limits employment and potential economic growth opportunities in the area, with local residents struggling to retain a sense of place. It is expected that these issues will only get worse with time if significant improvements are not made.

2.1 Site description

The scheme is located primarily within Mottram-in-Longdendale, on the eastern edge of the Manchester conurbation, adjacent to and within the settlements of Hattersley, Mottram-in-Longdendale, Hollingworth and Woolley Bridge (see Figure 1). The road connects the M67 in the west, to the A57 Brookfield Road in the east and crosses through the surrounding, predominately pasture, agricultural land within the Harrop Edge and Mottram Moor valley sides and within the Etherow river valley.

The scheme lies mainly within the administrative boundaries of Tameside Metropolitan Borough Council (MBC), up until to the proposed River Etherow Bridge. To the east of this, the scheme crosses over the boundary with High Peak Borough Council and Derbyshire County Council.

Figure 1: Overview of the scheme

The current site surroundings are a mix of existing and established urban development, Green Belt, agricultural land, sports grounds, and the River Etherow. From the West, south of the Junction 4 Roundabout, there are some local facilities, including supermarkets, churches, schools, and restaurants. The centre and east of the site is primarily Green Belt, agricultural, and residential land.

There are two identified Air Quality Management Areas (AQMAs) within the study area, inclusive of the Greater Manchester Air Quality Management Area and the Glossop Air Quality Management Area. Figure 2 highlights the location of the AQMA areas within the site; these are along the A57(T) Hyde Road and Mottram Moor, east of the M67 Junction 4 Roundabout.

The east of the site is within Flood Zones 2 and 3, and in a local ‘Area Liable to Flooding’.

Figure 2: DEFRA map of AQMA area in Tameside[3]

2.2 Details of the proposal

The A57 Link Roads scheme, formerly known as the Trans-Pennine Upgrade (TPU), or the Mottram Moor Link Road and A57 Link Road project in the Government's RIS2, has evolved over more than 50 years. In 2017, however, after a wide consultation about a number of different options, a package of TPU work was announced, with a plan to improve the existing route connecting the M67 at Mottram-in-Longdendale to the M1, north of Sheffield.

The TPU has since been split into two projects which are being delivered separately, inclusive of:

- Upgrades to the A61 Westwood roundabout near Sheffield; packaged with the A628 Safety and Technology improvements, including electronic signs and improved closure gates (already delivered); and
- Creation of two new link roads at the western end of the A57(T)/A628(T) route, to provide a dual carriageway bypass around Mottram-in-Longdendale.

This LIR concerns the latter A57 Link Roads scheme, which will include the creation of two new link roads:

- **Mottram Moor Link Road** (Figure 3 below) – a new dual carriageway from the M67 junction 4 roundabout to a new junction on the A57(T) at Mottram Moor; and
- **A57 Link Road** (Figure 4 below) – a new single carriageway link from the A57(T) at Mottram Moor to a new junction on the A57 in Woolley Bridge, also referred to as the 'Glossop Spur'.

[3] DEFRA AQMA map. Available at: [redacted]

Environmental constraints associated with the proposal are depicted in Figure 5. The scheme will include the following components:

- A new offline bypass of 1.12 miles (1.8km) of dual carriageway road connecting the M67 Junction 4 to A57(T) Mottram Moor Junction;
- A new offline bypass of 0.81 miles (1.3km) of single carriageway connecting the A57(T) Mottram Moor to the A57 Woolley Bridge;
- Creation of two new junctions, Mottram Moor Junction and Woolley Bridge Junction and improvement works to the existing M67 Junction 4;
- Creation of five new structures (Old Hall Farm Underpass, Roe Cross Road Overbridge, Mottram Underpass, Carrhouse Lane Underpass and River Etherow Bridge);
- One main temporary construction compound area, located on agricultural land to the east of the M67 Junction 4;
- Detrunking, including safety measures from the M67 Junction 4 to Mottram Back Moor Junction, to be agreed with Tameside MBC; and
- Safety measures and improvements to the A57(T) from Mottram Moor Junction to Gun Inn Junction and A57 from Gun Inn Junction to Woolley Bridge Junction, to be agreed with Tameside MBC. However, only the section between the Gunn Inn and the bridge over the Etherow is in Tameside, with the rest being in High Peak and Derbyshire. This section is to be replaced by the new A57 Link Road for the use of local traffic only.

The scheme has been identified as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. Section 37 of said Act requires National Highways, as the applicant, to submit an application to the Planning Inspectorate for a Development Consent Order to authorise construction of the scheme. Should consent be granted, National Highways estimates that construction work will begin in early 2023.

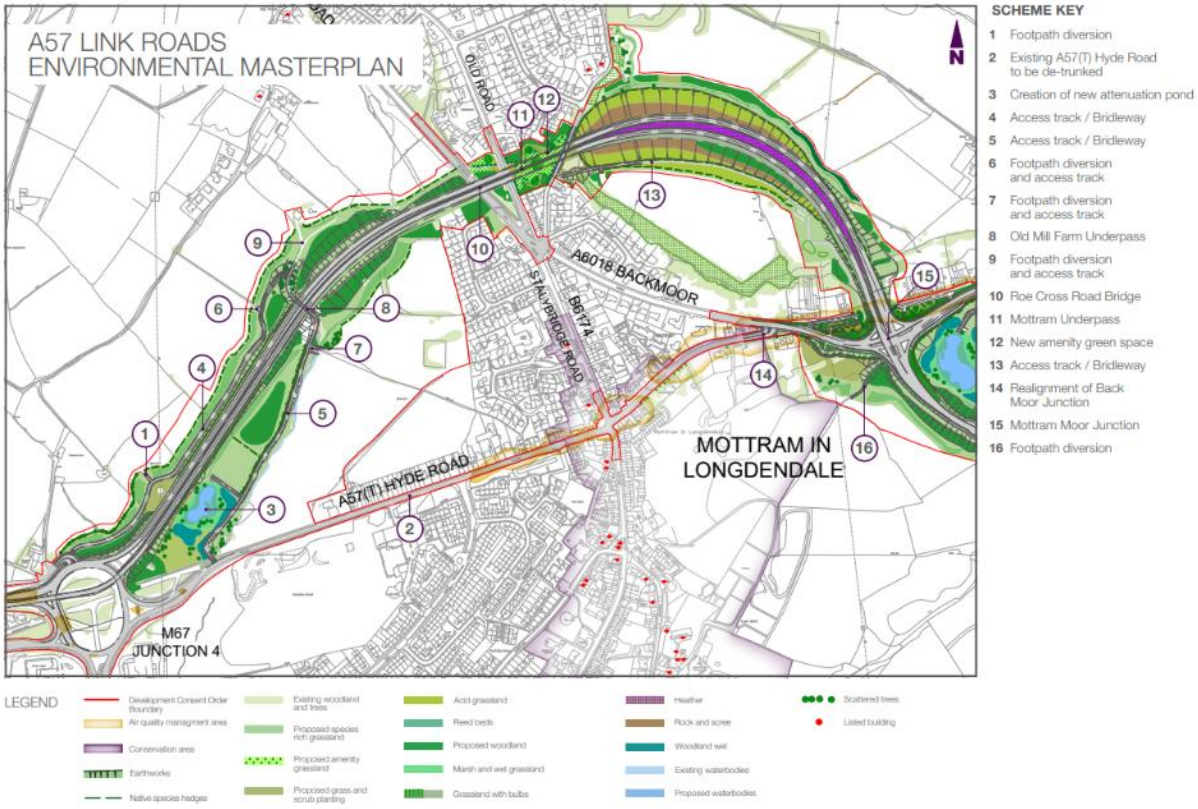

Figure 3: Environmental masterplan depicting the Mottram Moor Link Road (ES Non-Technical Summary, 2021)

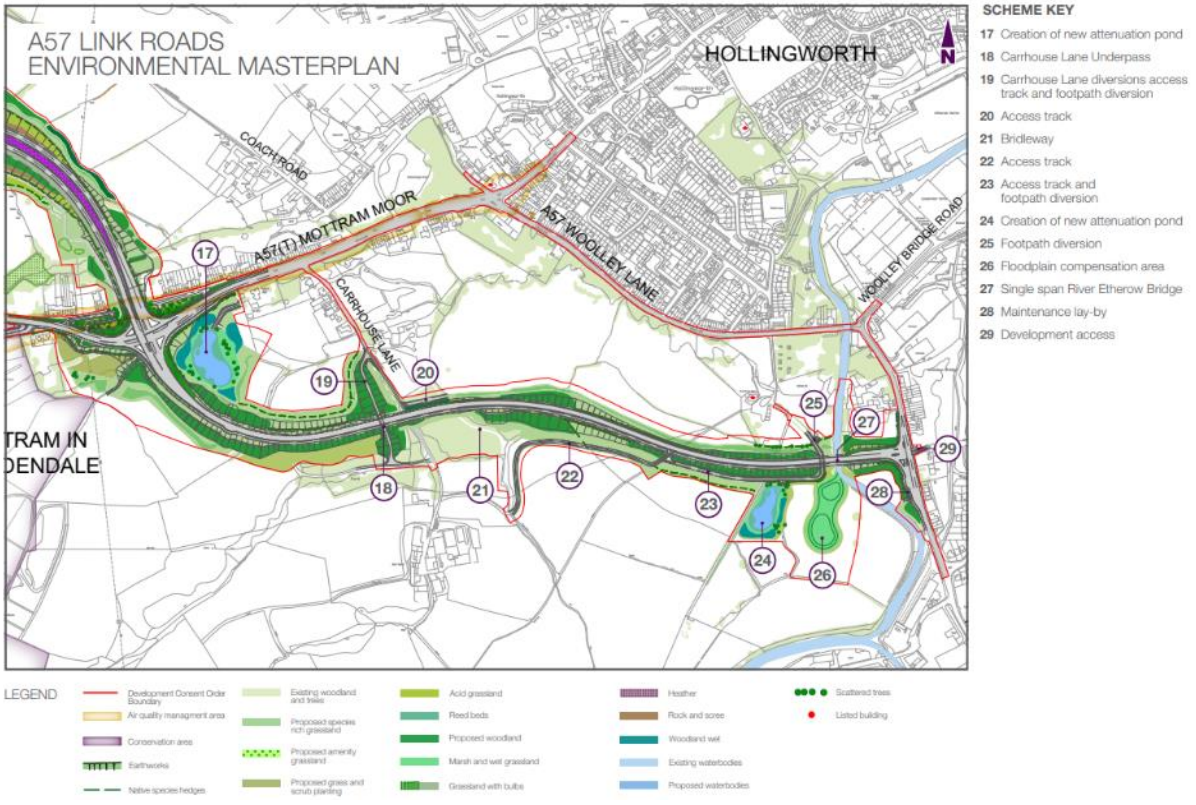

Figure 4: Environmental masterplan depicting the A57 Link Road (ES Non-Technical Summary, 2021)

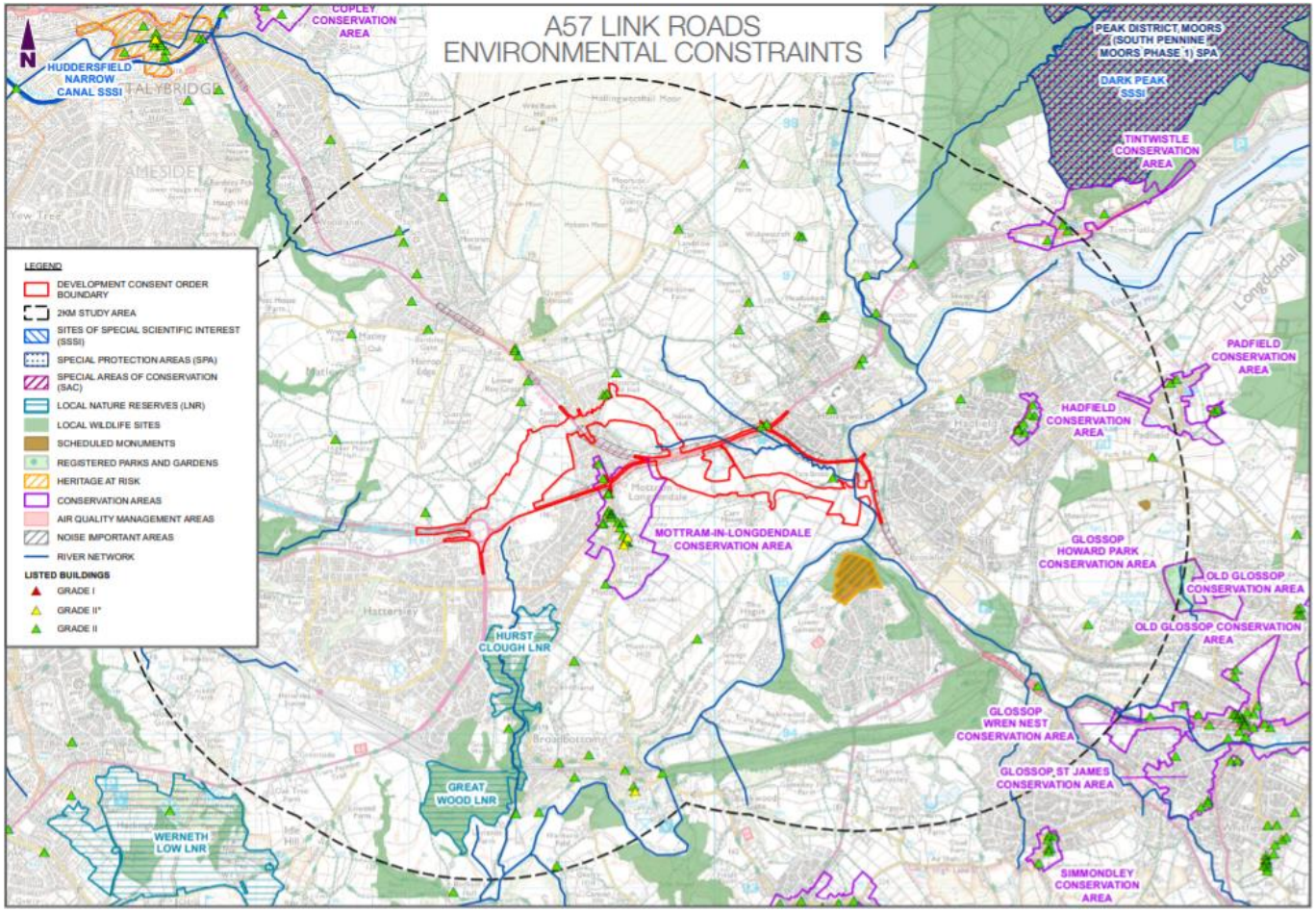

Figure 5: Environmental constraints of the A57 Link Roads proposal (ES Non-Technical Summary, 2021)

3 Planning context

3.1 Site Planning History

Whilst the proposed bypass has been subject of discussions for a significant number of years, it has not been the subject of a formal application in the past.

3.2 Surrounding Planning History

A planning history search of the site and of the immediate area has been conducted. There are no major planning applications within the site boundary; however, there are eight adjacent to the site (see below table). Although the proposed developments could lead to an increase in traffic, this will not have a detrimental impact on the A57 Link Roads proposal.

Table 1: Relevant adjacent planning applications

Planning Application Reference	Address	Application Description	Status and Date	Implications for A57 Link Road
21/00016/78RF	Land Bounded By Ashton Road, The River Tame, Turner Lane And Bredbury Industrial Estate	Creation of a commercial/industrial development providing up to 53,327 sqm of B2/B8 employment floorspace and associated infrastructure. Creation of two commercial/industrial units comprising 39,857 sqm (including ancillary office accommodation), strategic landscaping, the widening and realignment of Bredbury Park Way and the relocation of its junction with Ashton Road.	Appeal in Progress Refused 8th April 2021	
N/A	Godley Green, Green Lane, Hyde	Godley Green Garden Village comprises c.2,150 dwellings, a local	Outline application submitted 6th October 2021	Increase in traffic flow to and from this development

	Godley, Hyde, SK14 3BE	centre, education and sports provision cluster, cycle hub, and sports complex.		
18/01132/FUL	Vacant Land, Hattersley Industrial Estate, Hattersley, Stockport Road, SK14 3QT	Erection of B1, B8 and sui generis commercial units including geosciences laboratory. Total floor area 4,703sqm	Approved 13th August 2021	Increase in traffic flow to and from this development
19/00994/FUL	Organ Inn, 81 Market Street, Hollingworth, Tameside, SK14 8JA	Proposed residential development of 52 no. dwellings and the change of use of the former Organ Inn to 5 no. apartments and associated landscaping and car parking.	Approved 27th November 2020	Increase in traffic flow to and from this development
19/00963/FUL	Site Of Former District Centre, Hattersley Road, East And Beaufort Road, Mottram, Tameside	Residential development comprising of 91 no. apartments with associated access, car parking and landscaping	Approved 13th February 2020	Increase in traffic flow to and from this development
19/00618/FUL	Land Bounded By Underwood Road, Hattersley Road East And Melandra Crescent, Hattersley	Construction of 15No. houses included associated infrastructure and area of public open space.	Approved 20th December 2019	Increase in traffic flow to and from this development
19/00555/FUL	Cleared Land Bounded By Hattersley Road East, Melandra Crescent And Kenworthy Close, Mottram, Tameside	Residential development comprising of 46 units (6No. 2 bedroom houses; 21No. 3 bedroom houses; 9No. 4 bedroom houses & 10No. 2 bedroom bungalows) including	Approved 20th December 2019	Increase in traffic flow to and from this development

		associated infrastructure.		
16/00962/OUT	Sites Off Fields Farm Road And Hattersley Road West Hyde Tameside	Outline planning application (All matters reserved) for the residential development of 0.59 hectares of land	Approved 22nd February 2017	Increase in traffic flow to and from this development
14/00903/OUT	Land Bounded By Ashworth Lane And Chain Bar Lane Mottram Tameside	Comprehensive redevelopment for a new district centre comprising class A1 foodstore retail units (Class A1-A5), Drive-Through Cafe/Restaurant (Class A3/A5) with associated means of access (All other matters reserved), including the demolition of existing buildings and structures	Approved 10th February 2015	Increase in traffic flow to and from this development

3.3 Identified potential residential and employment sites

A review of Tameside MBC's Strategic Housing and Economic Land Availability Assessment (SHELAA) 2020-2037[4] has been conducted. It identified and assessed 14 residential sites adjacent to or within the site boundary (Table 2). It also identified 2 economic sites adjacent to the site boundary (Table 3). These sites have been assessed as potentially available for development within the next 15 years.

It is important to note that Tameside MBC's updated SHELAA for 2021-2037 is expected to be published in November/December of this year, but with respect to the timescales of this report, the available document has been used.

Table 2: Identified residential sites in Tameside MBC's SHELAA

SHELAA Reference	Site Name	Construction Status	Potential Residential Capacity	Timescale
-LONGDE-069	Land bounded by Underwood Road,	Not Started	15	0-5 years

[4] Tameside SHELAA. Available at:

	Hattersley Road East and Melandra Crescent			
H-LONGDE-111	Cleared land bounded by Hattersley Road East, Melandra Crescent and Kenworthy Close	Not Started	46	0-5 years
H-LONGDE-160	Roe Cross Green Café	Not Started	6	0-5 years
H-LONGDE-208	Dawlish Close	Not Started	29	0-5 years
H-LONGDE-215	White Hart Inn, 91 Market Street	Under Construction	5	0-5 years
H-LONGDE-228	Melandra Crescent	Not Started	9	0-5 years
H-LONGDE-234	4 Back Lane, Mottram-in-Longdendale	Under Construction	1	0-5 years
H-LONDGE-235	Hattersley Road East	Not Started	91	0-5 years
H-HYDGOD-052	Wardlebrook Avenue, Hattersley	Not Started	6	6-10 years
H-HYDGOD-078	Underwood Road, Hyde	Not Started	5	6-10 years
H-LONGDE-022	Atherton Avenue and Hyde Road	Not Started	17	6-10 years
H-LONGDE-128	The Organ Inn, Market Street, Hollingworth	Not Started	52	6-10 years
H-LONGDE-219	2 Ashworth Lane, Mottram, Hyde	Not Started	6	6-10 years
H-LONGDE-023	Atherton Avenue	Not Started	7	11-15 years

Table 3: Identified economic sites in Tameside MBC's SHELAA

SHELAA Reference	**Site Name**	**Construction Status**	**Gross Total Amount of Floorspace (sqm)**	**Notes**
E-LONGDE-001	Plot A, Hattersley Industrial Estate	Not Started	1483	Retain

E-LONGDE-002	Plot B, Hattersley Industrial Estate	Not Started	2746	Retain

3.4 Planning policy

3.4.1 National policy

The following table contains national planning policy and guidance documents relevant to the site.

Table 4: National planning policy documents

Document(s)		Status / Position
National Framework	National Planning Policy Framework (NPPF)	Adopted 2021
National Guidance	National Planning Policy Guidance	Adopted 2019-2021
National Policy Statement	National Policy Statement for National Networks	Adopted 2014
National Strategy	Road Investment Strategy 2	Published March 2020
National Delivery Plan	Highways England Delivery Plan 2020-2025	Published 2020
Planning Act	Planning Act 2008	Adopted 2008

National Planning Policy Framework (2021)

A review of the National Planning Policy Framework (NPPF) has been undertaken in relation to the scheme. The NPPF, last updated in July 2021, provides the basis for which plans for development can be produced and assessed.

Sustainable Development

The NPPF outlines that "the purpose of the planning system is to contribute to the achievement of sustainable development" which has three objectives; economic, social and environment and is delivered through plans and the application of policies within the NPPF (paragraphs 7, 8 and 9).

Promoting Sustainable Transport

Paragraph 104 of the NPPF states that transport issues should be considered from the earliest stages of development proposals, to ensure that any impacts on transport networks are addressed; opportunities to promote walking and cycling are pursued, and the environmental impacts of traffic can be assessed.

Considering Development Proposals

The NPPF (Paragraph 111) states that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".

Paragraph 112 continues by affirming that "applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
d) allow for the efficient delivery of goods, and access by service and emergency vehicles…".

In accordance with Paragraph 113, developments that will generate significant amounts of vehicular movement should be required to provide a travel plan. Applications should also be supported by a transport statement or transport assessment, allowing for the likely impacts of the proposal to be assessed.

It is noted that the route falls almost entirely within the Green Belt and as such, compliance with para 150 will be a key consideration in the determination process, i.e. whether the scheme preserves the openness of the Green Belt in this location and does no conflict with the purposes of including land within it.

Proposals affecting the Green Belt

Paragraph 148 of the NPPF states that "When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations."

According to Paragraph 150, certain forms of development can be regarded as 'not inappropriate' in the Green Belt, providing that they preserve its openness and do not conflict with the purposes of the land within it. This includes "Local transport infrastructure which can demonstrate a requirement for a Green Belt location."

National Planning Policy Guidance (MHCLG, 2021)

Available and relevant National Planning Policy Guidance includes the following:

1. Air quality;

All development plans can influence air quality in several ways, and this guidance notes the provisions made for sustainable transport to be one of them. It also highlights the importance of acknowledging air quality management areas, Clean Air Zones and other areas including sensitive habitats or designated sites of importance for biodiversity.

2. Climate change;

Effective spatial planning is an important part of a successful response to climate change. Plans and developments can help to mitigate the impacts of climate change by reducing the need to travel and providing sustainable transport. These are particularly important considerations that affect transport emissions.

3. Flood risk and coastal change;

Transport infrastructure is classed as essential infrastructure under the Government's flood risk vulnerability classification. This means that for developments in Zone 3a, an Exception Test is required, and essential infrastructure should be designed and constructed to remain operational and safe in times of flood. In Zone 3b, for essential infrastructure that must be there and has passed the Exception Test, and water-compatible uses, should be designed and constructed to remain operational and safe for users in times of flood; result in no net loss of floodplain storage, and not increase flood risk elsewhere.

4. Green Belt;

Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. Several matters need to be considered, including the degree of traffic generation.

5. Travel Plans, Transport Assessments and Statements.

Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development to promote sustainable development. They are required for all developments which generate significant

amounts of movements. They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking, and cycling.

National Policy Statement for National Networks (NPS NN) (DfT, 2014)

Section 104(2) of the Planning Act 2008 states that in deciding the application for a DCO, the Panel must have regard to any National Policy Statement (NPS) for the development to which the development relates, as well as any Local Impact Report, any matters prescribed in relation to development of the description to which the application relates, and any other matters considered important and relevant. In this case, the National Policy Statement for National Networks (NPS NN) is Relevant.

The NPS NN sets out the need for the development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England. It identifies that there is a critical need to address road congestion and provide safe, expeditious and resilient networks, designed to minimise social and environmental impacts, and improve quality of life.

Chapters 5-15 of the application's Environmental Statement include the relevant assessment paragraphs of the NPS NN and address compliancy.

Road Investment Strategy 2 (DfT, 2020)

The Road Investment Strategy 2 provides the Department for Transport's approach to investment in our Strategic Road Network (SRN) over the next five years. It promotes a safer, reliable road network, with a strong focus on the differing needs of users to help places grow sustainably. The Mottram Moor Link Road & A57 Link Road are listed in this document; being described as a dual carriageway bypass around the town of Mottram near Manchester. The road is said to serve as an alternative route for traffic heading north-south on the A57.

Highways England Delivery Plan 2020-2025 (Highways England, 2020)

The Highways England Delivery Plan, published 2020, sets out their plans for investing government funding in the Strategic Road Network (SRN) through the opening of 52 schemes; one of which is the Mottram Moor Link Road and A57 Link Road. The plan outlines that the scheme's works will begin in 2022/2023 and once completed, will reduce congestion, bring both social and environmental benefits for local communities.

Planning Act 2008 (DCLG, 2008)

The scheme is a (Construction) National Significant Infrastructure Project (NSIP) as set out by the requirements within Sections 14(1)(h) and 22(1) of the Planning Act 2008 (the Act). Under this Act, a Development Consent Order (DCO) is required for development to the extent that the development is or forms part of a nationally significant infrastructure project. The Order, if granted, will specify details of the development consented and any conditions that must be met.

The Infrastructure Planning (Publication and Notification of Applications etc)

(Amendment) Regulations 2020 (SI 2020/1534), however, came into force as a result of the restrictions on movements and the closure of public buildings during the COVID-19 pandemic. These Regulations amend the requirements placed on applicants to make documentation available for inspection at places including at least one address in the vicinity of the proposed development when submitting the DCO documentation.

3.4.2 Statutory development plan

The following table contains local planning policy documents relevant to the site.

Table 5: Local planning policy documents

Document(s)		Status / Position
Adopted Local Plan	Tameside Unitary Development Plan	The adopted Local Plan includes the Tameside Unitary Development Plan, adopted November 2004.
Development Plan	Greater Manchester Joint Waste Development Plan Document	Adopted April 2012
Development Plan	Greater Manchester Joint Minerals Development Plan Document	Adopted 2013
Emerging Local Plan	Tameside Local Plan	In preparation. Proposed for adoption Spring 2025.
Emerging Spatial Framework	Places for Everyone 2021, and supporting documents	Published Summer/Autumn 2021 – previously the Greater Manchester Spatial Framework 2020. Proposed for adoption Summer/Autumn 2023.
Local Implementation Plan	Tameside Local Implementation Plan	Published 2021
Regional Strategy	Greater Manchester Transport Strategy 2040	Published 2021

Delivery Plan	Greater Manchester Transport Five Year Delivery Plan 2021-2026	Published 2021
Local Strategy	Tameside Inclusive Growth Strategy 2021-2026	Published 2021
Local Strategy	Tameside Housing Strategy	Published 2021
Local Strategy	Emerging Environment and Sustainability Plan	To be published November 2021
Supporting Plans	Clean Air Plans | Clean Air Greater Manchester (cleanairgm.com)	In preparation
Appraisal and Management Proposals	Mottram-in-Longdendale Conservation Area Appraisal and Management Proposals	Published March 2013

Tameside Unitary Development Plan (Tameside MBC, 2004)

Tameside Metropolitan Borough Council are currently in the process of preparing a new, up-to-date Local Plan, which will be the main land use planning document for the Borough. The Local Plan will replace the Council's currently adopted Unitary Development Plan (UDP), adopted in 2004 and saved (apart from a small number of policies which were not saved) under a Direction from the Secretary of State. It will reflect the strategic policies and allocations in the emerging Greater Manchester planning document 'Places for Everyone' (formerly Greater Manchester Spatial Framework).

The Tameside UDP proposals map contains the following planning policies relevant for the A57 Link Road site. To note that these are all relevant as saved policies.

Green Belt (OL1)

Under this policy, the Green Belt will continue to be protected from inappropriate development and approval will not be given, except in very special circumstances. Uses of land, however, which preserve the openness of the Green Belt, and which do not conflict with the purposes of including land within it may be approved.

Trunk Road Developments (T2)

Policy T2 states that the Council will protect the line of the Mottram to Tintwistle Bypass, proposed by the Highways Agency as a trunk road scheme, from the M67/A57/A560 intersection at Hattersley to the Derbyshire border. This preferred route, including a link connecting the bypass to the existing A57(T) at Mottram Moor (Policy T3), is shown on the proposals map and is already being protected from development.

Major Highways Schemes (T3)

Policy T3 explains that the Glossop Spur will add to the Highways Agency's proposed A57(T)/A628(T) Mottram to Tintwistle Bypass (Policy T2) by extending the link off their main east-west route beyond Mottram Moor through to Woolley Bridge. The scheme will be promoted jointly by Tameside MBC and Derbyshire County Council and will be progressed to dovetail the design and statutory processes with those of the trunk road scheme.

Flood Prevention (U4)

When considering proposals for development, the Council will apply a risk-based approach to the assessment of possible flooding, taking into account the Environment Agency's most recent Indicative Flood Plain Maps and any other relevant sources of information. In a sequential test, priority will be given to development in areas in little or no risk of flooding. However, where, exceptionally, development is permitted in areas liable to flooding, appropriate flood protection and mitigation measures will be required as part of the development.

Conservation Areas (C2, C4)

Policy C2 (Conservation Areas) states that the character and appearance of the Borough's Conservation Areas will be preserved or enhanced through the control of development. Further, Policy C4 (Control of Development in or adjoining Conservation Areas) stipulates that developments adjoining a conservation area will have regard to the desirability of preserving or enhancing the character or appearance of the area, and to the need to ensure that the proposals make a positive contribution to the context in which they are set.

Protected Green Space (OL4)

Policy OL4 stipulates that the Council will not permit built development on any land shown as Protected Green Space on the proposals map. Measures will also be taken to enhance the accessibility, appearance, and habitats of areas of Protected Green Space and to extend or link them into further areas of open space.

Established Employment Area (E3)

The council will permit development for employment purposes in Established Employment Areas, such as that Southwest of the A67 Junction 4 Roundabout.

Neighbourhood Plan

There is currently one Neighbourhood Forum in the area, however, they are not understood to be active in preparing a Neighbourhood Plan for Tameside.

Greater Manchester Joint Waste Development Plan Document (AGMA, 2012)

Under the provisions of the Planning and Compulsory Purchase Act 2004, the ten unitary authorities in Greater Manchester agreed to produce a Joint Waste Development Plan Document (JWDPD) for Greater Manchester. The JWDPD, adopted 2012, sets out a spatial framework for waste developments within Tameside and includes detailed development control policies and identifies sites and preferred areas for a range of waste management facilities.

There are no allocations from JWDPD within the site.

The Greater Manchester Joint Minerals Development Plan Document (AGMA, 2013)

The Greater Manchester Joint Minerals Plan Development Plan Document forms part of the folder of individual development plans for the ten Greater Manchester councils, including Tameside MBC. This framework will facilitate economic development, whilst ensuring that the environment and community are protected from the impacts of minerals. This will enable Greater Manchester to contribute to its sub-regional apportionment of aggregates and facilitate greater use of recycled products.

The Plan identifies that the site is adjacent to the Mineral Safeguarding Area for Sand and Gravel, a Search Area for Sandstone, and a Mineral Safeguarding Area for Sandstone. The Mouselow Quarry in Glossop is also listed in the Plan, being the main source for raw material for the Denton factory, operated by Wienerberger. The Plan recognises the importance of the quarry for an ensured continued supply of brick clay operations within Greater Manchester.

3.4.3 Other relevant local policy

Places for Everyone 2021 (GMCA, 2021)

The Greater Manchester Spatial Framework (GMSF) was a sub-regional plan originally authored by the Greater Manchester Combined Authority and the 10 GM districts. These are : Bolton, Bury, Oldham, Rochdale, Stockport, Tameside, Trafford, Wigan, Manchester, and Salford. Stockport, however, withdrew from the Plan in 2020, and the GMSF evolved to ‘Places for Everyone’(PfE). Once adopted, it will provide strategic planning policies (including detailed development management policies) and allocations across nine Greater Manchester local authority areas. The PfE focuses on strategic issues at a regional scale, including the provision of homes and jobs, and the protection of the environment.

The GMSF was first drafted in 2016 but has since undergone a radical rewrite, which was published as a draft in January 2019. This draft underwent public consultation from January to March 2019, with responses published in October 2019. It was the intention to publish the plan in 2020, however, Stockport's withdrawal prevented this, and instead, a further round of consultation took place during the summer. A period for representations for the published PfE took place between August 9th and October 3rd, 2021. The plan is to be submitted following this. Policies in the draft plan carry limited weight at the present time.

Green Belt land in Tameside is either maintained as identified within the Tameside UDP or added to through Green Belt additions as proposed within PfE Policy JP-G 10. With reference to Figure 6, an addition to the Green Belt is proposed adjacent to the east and southeast of the A67 Junction 4 Roundabout. This addition would effectively replace the designation of land under Policy OL4 in the Tameside UDP.

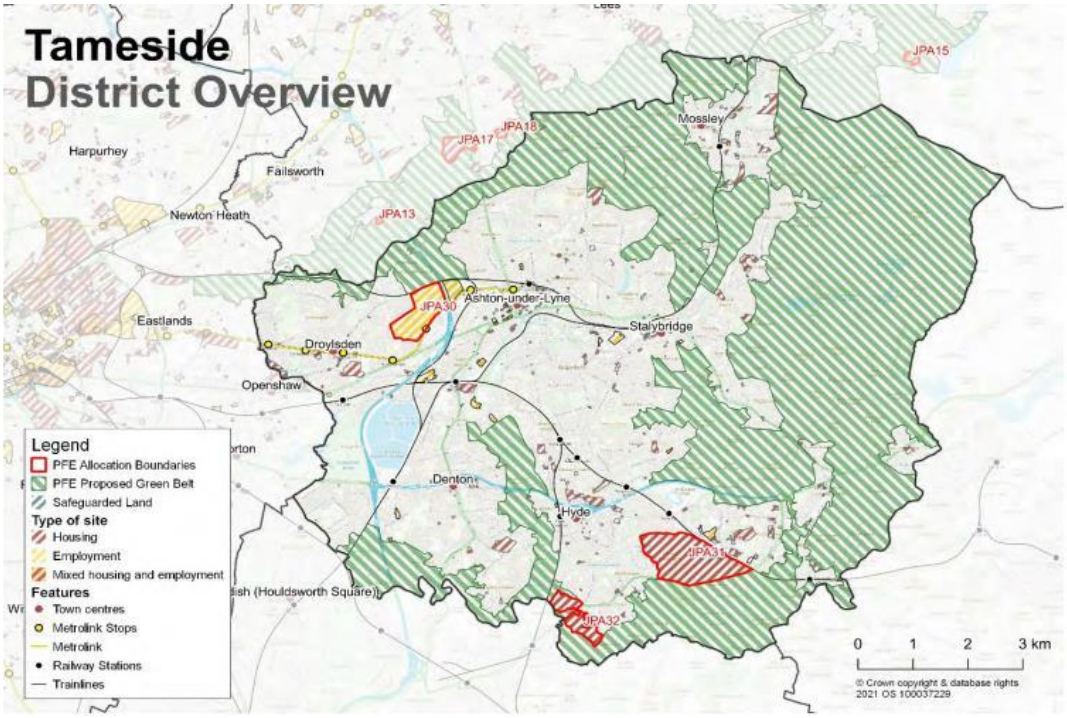

Figure 6: Tameside District Overview

Places for Everyone – Supporting Documents

The Transport Locality Assessment: Tameside Allocations Document[5] (GMSF, 2020) was a supporting document prepared initially as evidence for the GMSF and examines the implications of the GMSF on transport in Greater Manchester.

This document has reviewed consultation feedback, with prominent congestion across the A57 being a key issue, particularly at the M67/A57(T) Hyde Road/A560 roundabout. The Godley Green Garden Village allocation would also

[5] Transport Locality Assessments: Tameside Allocations. Available at:

have an impact on vehicular traffic along this route and as a result, proposes a reduced scheme at the M67 Junction 4 roundabout for mitigation. However, the reduced scheme would only be required if this National Highways scheme were not to go ahead.

The Transport Locality Assessments Addendum for Tameside, with Update Note[6], highlights that from a PfE allocation perspective, no changes are expected in the pattern of travel to and from the allocation between the previous work undertaken and the update. This is based on the latest round of modelling.

The JP-A 31 Godley Green Garden Village Allocation Topic Paper[7] (PfE, 2021) was produced alongside the publication of the PfE, introducing the Godley Green proposal and its impacts in the surrounding area. This states that the development will result in material implications on the operation of the SRN, and highlights the potential need for mitigation to the M67 Junction 4 roundabout.

Greater Manchester Transport Strategy 2040 (TfGM, 2021)

The Greater Manchester Transport Strategy 2040 (GMTS) was published February 2017, and updated January 2021. The document sets out Greater Manchester's ambitions for a radical new approach to planning their transport system up to 2040, and the interventions needed to achieve it. The opportunities offered by devolution and greater local determination of policies, funding, and delivery have allowed for a longer-term view of challenges and transport needs within the GMTS, inclusive of an ageing population, climate change, and achieving the 'right mix' of transport modes on their network.

The GMTS highlights the delivery of the Mottram Moor Link Road and the adjacent A57(T) to A57 Link, in line with the roll-out of the second Road Investment Strategy (RIS2, 2020–2025). Transport for Greater Manchester (TfGM) and the Greater Manchester Combined Authority (GMCA) will work with partners to help develop this investment plan over the longer-term. They also plan to ensure that Strategic Road Network (SRN) schemes do not impact adversely on the local road network.

Greater Manchester Transport Five Year Delivery Plan 2021-2026 (TfGM, 2021)

Published in January 2021, the Greater Manchester Transport Five Year Delivery Plan 2021-2026 was developed in close co-operation with TfGM, GMCA and the local authorities. The Plan sets out shorter-term measures, schemes and development work needed to achieve the Our Network (2019) vision; to create a world-class, modern, integrated and reliable transport system. The plan is also

[6] Transport Locality Assessments Addendum. Available at:

[7] Godley Green Garden Village Allocation Topic Paper. Available at:

committed to Greater Manchester's aim to tackle poor air quality and to be a carbon neutral city-region by 2038.

As seen in Figure 7, the Mottram Moor and A57(T) to A57 Link Roads are included in the 5-year delivery plan, as part of a package to improve Trans Pennine Road connectivity between Greater Manchester and South Yorkshire.

Other schemes along this route include the Busy Beeway delivery on the A57 corridor between Denton and Hyde, and the Highways England funded cycle scheme providing a safe cycle route linking Hyde town centre to Mottram and Hollingworth along the A57 Corridor.

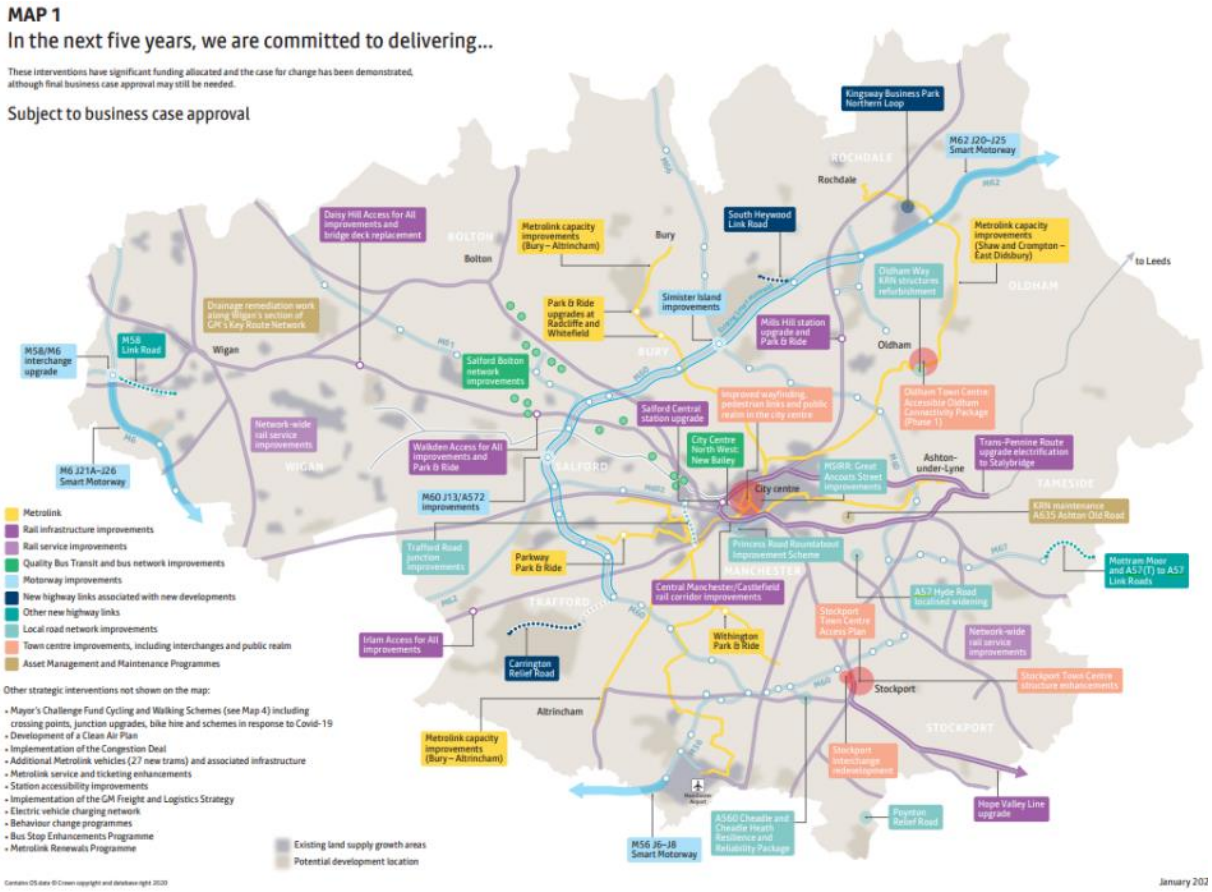

Figure 7: Map highlighting Greater Manchester's transport delivery plans up to 2026

Tameside Local Implementation Plan (TfGM, 2021)

The Tameside Implementation Plan sets out Tameside's transport priorities for the next five years, as part of the Greater Manchester Transport Strategy 5-Year Delivery Plan. This document sets out some of the steps Tameside MBC will take with its transport partners and other stakeholders to ensure progress is made towards its transport vision and priorities in the short-term.

The A57 Link Roads are referred to as Strategic Transport Inventions for Tameside on the Tameside Delivery Map.

Tameside Inclusive Growth Strategy 2021-2026 (Tameside MBC, 2021)

The Tameside Inclusive Growth Strategy, published in 2021, focuses on ensuring that the quality of life, health and happiness of local people is improved. Digital and transport infrastructure is highlighted as key to driving recovery and skills and employment programmes to bring long term benefits to all residents and businesses.

The Mottram Bypass and Glossop Spur scheme is noted as a key project for Tameside, being part of the 'Hyde Triangle'. This is stated to be a major transport infrastructure upgrade, improving links between Greater Manchester and South Yorkshire to reduce congestion, improve productivity and reduce air pollution.

Tameside Housing Strategy (Tameside MBC, 2021)

The Tameside Housing Strategy, published in 2021, provides a clear vision of how Tameside MBC, alongside its residents and partners, can achieve a shared aspiration of providing high quality housing and safe neighbourhoods across the area. The Strategy aims to ensure that land has the appropriate transport infrastructure to support economic growth and maximise connectivity across the region, with a focus public transport, walking, and cycling.

Tameside Environment and Sustainability Plan

The Tameside Environment and Sustainability Plan 2021-2026 is an emerging document, set to be published in November 2021. Tameside has previously been adhering to the Low Carbon Tameside – Sustainable Use of Resources Action Plan 2010-2020[8], which discuses four key priorities for the area: reducing environmental impact, making Tameside more attractive, protecting the natural environment, and developing community champions.

Clean Air Plan (Clean Air Greater Manchester)[9]

All ten local authorities have worked together to develop the Greater Manchester Clean Air Plan, which aims to bring nitrogen dioxide (NO^2) levels on local roads within legal limits by 2024. The final Clean Air Plan has now been approved by the councils, following a public consultation and further development work. The Plan, which includes a Greater Manchester-wide Clean Air Zone (CAZ), is anticipated to launch on 30 May 2022. More than £120m in government funding will also be available to support eligible Greater Manchester businesses, people and organisations to move to cleaner vehicles before the Zone is introduced.

The Clean Air Zone boundary follows the administrative boundary of Greater Manchester as closely as possible. It excludes the SRN of motorways and major trunk roads which is managed by Highways England. Tameside is currently included within the Clean Air Zone; however, the A57 (T), being part of the SRN, is not included in the Clean Air Zone. The ten Greater Manchester local authorities continue to ask the government to direct Highways England to tackle

nitrogen dioxide (NO2) exceedances on the SRN in the same way Greater Manchester local authorities are having to take action on the local road network.

4 Economic Growth and Transportation

As mentioned, a series of meetings took place with relevant Tameside officers and external parties to inform this LIR and particularly this section.

4.1 Context

Between Manchester and Sheffield, the A57(T) and A628(T) strategic roads presently suffer from heavy congestion, carrying more vehicles than appropriate and bisecting local towns and villages. This results in unreliable journeys, poor air and noise quality, and negatively impacts local communities.

Additionally, this restricts potential economic growth, as the delivery of goods to businesses is often delayed. The route is not appropriate for commuting traffic coming from High Peak, which limits employment and education opportunities, and village and local centres struggle to retain a sense of place and provide a focal point for community activities.

Section 3.3 within this report identifies potential residential sites in the surrounding area, some of which are already under construction; and Section 3.4.3 contains a summary of other relevant local policy including the emerging Tameside Housing Strategy, which will provide a clear vision of how Tameside MBC can achieve a shared aspiration of providing high quality housing and safe neighbourhoods across the area. As previously mentioned, the Strategy aims to ensure that land has the appropriate transport infrastructure to support economic growth and maximise connectivity across the region, with a focus public transport, walking, and cycling.

Within Section 3.4.3, there is also a summary of the Godley Green Garden Village Allocation Topic Paper, which discusses the Godley Green proposal and its impacts on the surrounding area. The Godley Green proposal involves c.2,150 homes staged over a 15-year development plan. The Transport Locality Assessment for Tameside states that the Godley Green site does not suggest significant major impact as a result of this proposal.

Additionally, there will be 688 dwellings developed in Hattersley by 2023, and a further potential 440 dwellings, in Gee Cross approximately 1 mile south west from Godley Green towards Stockport. This housing growth presents an opportunity to improve connectivity in the wider area.

With regard to active travel, there are currently four schemes in the pipeline in the wider Tameside area:

- Hyde to Mottram Cycleway Improvement Scheme – Scheme Appraisal Report (SAR) was presented to Highways England and approved in 2021, with the scheme currently on hold pending additional funds to complete detailed design;
- Sustrans NCN62 (Trans Pennine Trail) Realignment – a Sustrans scheme showcasing their ambition to improve the National Cycle Network

(Tameside Council is working closely with Sustrans to ensure any initiatives are coordinated);

- Roe Cross Road Cycle Upgrade Scheme – an Active Travel Fund (ATF) scheme seeking to improve existing cycle lanes by introducing segregation between Edge Lane and Old Road;
- Mottram to Stalybridge Active Travel Corridor Study – capability funding has been approved for a study along this key corridor.

4.2 Summary of impacts

The new link road proposal is designed to relieve the local congestion issues as documented, lifting the barriers to movement, investment and development choices, thereby generally creating land value uplift and improved development potential.

The scheme will generally make vehicular routes into and through this part of Tameside faster and more predictable, which will help existing local businesses grow in and around the A57 including the Hattersley, Mottram, and Hollingworth areas. For instance, the Hattersley Industrial Estate on Mottram Old Road (as well as Bredbury, Stockport Road and Sandhills Industrial Estate) will likely become more active as a result of this proposal. Both the Hadfield and Brookfield Industrial Estates in Glossop will also benefit from the A57 improvements and generate further local employment opportunities in Tameside.

Additionally, due to the decreased congestion through the A57 corridor, active travel will become more desirable and there is potential for improving public transport services e.g., bus routes. There are new bridleways, footpaths and cycle lanes proposed as part of the scheme, although the design has not been finalised for all of these at this stage.

Furthermore, the reduction of traffic along the A57 corridor through Mottram, in particular Hyde Road and Mottram Moor, as a result of the scheme will encourage new businesses which may have seen congestion in the area as a barrier in the past. This will assist in addressing existing areas of underutilised economic development potential and will strengthen both vehicular and public transport linkages to advanced manufacturing hubs and sustainable industries across Manchester and Sheffield, which is a key aim of Tameside's Inclusive Growth Strategy. This will present the local community with commuting opportunities, allowing for the acquisition of high value and high skilled city centre jobs.

The construction of the scheme itself has the opportunity to offer local employment, training and apprenticeships for example and the achievement of social value uplift through the scheme and it is recommended that such conditions and obligations are sought to maximise this opportunity.

Additionally, the link road proposal is seeking to form the first stage of a wider road programme around Mottram, Hollingworth and Tintwistle. This catalyst, in conjunction with the aforementioned pipeline of active travel schemes, will further decrease congestion around the A57 corridor.

Anecdotally, high congestion levels have led to rat running via unsuitable local roads for example through Charlesworth and Broadbottom with the knock on impact of higher traffic levels on these local communities. The implementation of the Scheme will help to divert traffic away from these routes to the new highway therefore improving conditions on these routes and communities and their easier accessibility to jobs, homes and education thereby generating economic uplift.

Connectivity and ease of movement will become increasingly important as these emerging developments come forward. It is therefore considered that the proposed scheme will have a **positive** impact on economic growth and transportation for the wider area.

4.3 Mitigation and enhancement

Connectivity and quality of active travel routes, including public rights of way (PRoW), are essential to attract users to the network and to get the most co-benefits out of the scheme for non-motorised users (NMU). Through engagement with the Council's PRoW team, it was discussed that all active travel users would like to access Roe Cross Road from the new Mottram Moor Link Road. The new east-west connectivity created in this area is also vital to encourage use of the new paths. There could potentially be additional enhancement in the detailed design of the scheme, to ensure access tracks and bridleways (as seen in Figure 3) are connected to the most desirable paths via the wider network and that improved crossing facilities are provided for pedestrians, cyclists, and equestrian users.

In particular, equestrians would like a suitably designed junction at the Glossop Spur eastern end of the scheme (as seen in Figure 4), to fully enable equestrian movement and to ensure there is connectivity into the wider Trans Pennine Trail.

Atkins design team, working on behalf of National Highways, states that the A57 de-trunked portion of the scheme is still being designed, which leaves potential to improve cycling routes through Mottram-in-Longdendale through possible provision of segregated cycle lanes.

As mentioned above, due to the decreased congestion on the A57 corridor as a result of this scheme, there is also the potential to enhance the existing bus network to ensure connectivity back into GM and the City Centre.

Preliminary discussions have taken place between the HE design team and Council officers with regards to opportunities for walking and cycling enhancements along the de-trunked Hyde Road. The council would like to see the introduction of a number of interventions in order to deter through traffic from continuing to use this route. This could see the speed limit along Hyde Road being reduced from 30mph to 20mph.

5 Noise and Vibration

Noise and vibration were assessed within Chapter 11 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

5.1 Context

The ES states that the construction noise and vibration assessment was undertaken using three study areas, with each study area focussed on a specific source of noise or vibration. This approach is in line with guidance provided in the Design Manual for Roads and Bridges (DMRB) LA 111 on setting study areas for construction noise and vibration assessments.

The operation phase road traffic noise study area was defined in accordance with the DMRB LA 111, which suggests that the study area should encompass the following:

- The area within 600m of new road links or road links physically changed or bypassed by the scheme;
- The area within 50m of other road links with potential to experience a short-term change of more than 1 decibel (dB) as a result of the scheme;
- Areas where there is a reasonable stakeholder expectation that an operation phase road traffic noise assessment would be undertaken.

5.2 Summary of construction impacts

Noise

The ES states that demolition and construction activities have potential to give rise to increases in local noise levels, if not effectively managed. These impacts would be temporary and cease once works are completed. Impact from noise levels would be dependent upon:

- Construction activities taking place near the sensitive receptor of interest;
- Distance from the construction works;
- Efficacy of embedded and essential mitigation measures; and
- Time periods the works are carried out.

A few sensitive receptors will have the potential to experience high noise levels due to several different construction activities over multiple construction phases. This is most likely at 15 Old Road, 23 Old Road, and 3 Tollemache Close, where potentially significant adverse effects have been predicted during construction phases 1, 2, and 3, spanning approximately 18 months. These effects are attributed to demolition works, piling at Mottram Underpass, and work on the Mottram

Underpass structure. However, a detailed construction programme will not be available until the detailed design stage to confirm the duration of the works.

Therefore, the noise impact from construction works is considered to be **negative**. However, this is temporary and would cease upon completion of construction.

Vibration

The ES highlights that some construction activities for the proposal incorporate plant, equipment, or processes that have the potential to cause ground borne vibration which may be perceptible at sensitive receptors (including residential receptors, and non-residential receptors, such as schools, medical facilities, and places of worship). These activities include piling, vibratory soil compaction, and asphalt rolling. Higher levels of vibration are likely to generate complaints and concerns relating to the risk of building damage.

These works will also result in road closures, diversions, and works under temporary signal control. This will inevitably lead to disruption and delays on the local highway network, with a redistribution of traffic onto other routes.

Therefore, the vibration impact from construction works is considered to be **negative**. However, this is temporary and would cease upon completion of construction.

5.3 Summary of operation impacts

Noise

Once the link roads are operational, the noise climate would be permanently affected by changes in vehicle activity, determined by the traffic flows, speeds and fleet composition on the local road network including the proposal itself.

A **positive** impact is expected at Mottram-in-Longdendale (Hyde Road and Mottram Moor) and Hollingworth (Woolley Lane) due to the A57 Link Road diverting traffic away from these areas. However, **negative** effects are likely to occur at residential streets in Mottram-in-Longdendale close to the route of the scheme, such as Four Lanes, Old Hall Lane, and Lodge Court. This is because the proposal will be a new noise source that is likely to affect the noise climate at these areas.

Vibration

There are no anticipated vibration impacts during the operation of the scheme.

5.4 Mitigation and enhancement

There are both embedded and essential mitigation measures which have been incorporated into the scheme (summarised in Table 6). To mitigate effects, the majority of construction works would take place during the daytime; however, there may be some periods of night-time activity. Further details on construction traffic impacts are provided in Section 13.

Table 6: Embedded and essential mitigation measures

Phase	Mitigation measure	Type of mitigation
Construction	Environmental Management Plan with noise and vibration reduction measures	Embedded
	Traffic Management Plan for construction phase	Embedded
	Development and implementation of Community Engagement Plan, seeking to provide information about the proposal to a wide audience	Embedded
	Proactive stakeholder engagement focused on locations which would be affected most by construction works	Essential
	Use of low vibration piling methods where practicable	Essential
	Use of temporary environmental noise barriers and using lower working platform heights to maximise benefit of barriers	Essential
	Using low noise construction plant and undertaking one noise-generating activity at a time near noise sensitive areas	Essential
	Temporary rehousing and/or noise insulation for qualifying dwellings	Essential
Operation	Design of proposal to minimise road traffic noise level	Embedded
	Low noise road surfacing (except bridges)	Embedded
	Routine road maintenance	Embedded
	Permanent environmental noise barriers at eastern and western portals of Mottram Underpass, Mottram Moor junction, and along A57 Link Road in proximity to Carrhouse Lane and Tara Brook Farm	Essential

6 Geology, Soil and Ground Conditions

Geology and soils were assessed within Chapter 9 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction. It also identifies mitigation measures recommended for any potentially significant adverse effects.

Additionally, there is a standalone Ground Investigation Report (GIR) which was submitted as part of the application. This has also been reviewed for relevant information.

6.1 Context

Within the ES, baseline information was gathered through a review of previous ground investigation (GI) data (four previous phases of GI have been undertaken across the scheme) as well as a review of information provided during consultation. The GIR states that approximately 109 exploratory boreholes and 50 trial pits have been undertaken within the current red line boundary between 1994 and 2018. As a result of these previous soil samples, only two exceedances of generic assessment criteria were recorded.

The ES study area comprises up to a 250m buffer from the DCO boundary. The baseline information covers the scheme and the study area; and where relevant in the identification of sensitive receptors, is increased to between 500m to 1km. The buffer associated with hydrogeological (groundwater) receptors is 1 km.

The following receptors have been identified from the baseline and are assessed within the ES:

- Geology;
- Soils to human health;
- Soil resources – agricultural soils;
- Groundwater quality;
- Surface water quality; and
- Hydrogeological regime.

6.2 Summary of impacts

Potential impacts that could occur to these receptors associated with the scheme have been identified as:

- Spread or mobilise pre-existing (historic land use) contamination across the scheme impacted on overall land quality;
- Pollution due to construction or future activities (storage of fuels, spillages etc.);

- Exposure to adjacent residents associated with dust migration during earthworks;
- Exposure to contaminated soil, ground gas mitigation into confined spaces or groundwater contamination for the future end use;
- Migration of contamination through creation of preferential pathways (including piling), surface water run-off (and migration into aquifer) and dewatering (and in turn to surface waters);
- Exposure to contaminated surface and groundwater abstracted for use locally;
- Impact on hydrogeological regime though creation of cuttings;
- Loss of non-best and most versatile (BMV) agricultural land.

The most sensitive receptors have been identified as local residents, including schools, within a 250m radius of the scheme in addition to local private water abstractions within a 1km radius of the scheme.

As stated in the ES, the scheme is deemed to have the following effects on the receptors:

- Geology and soils – neutral or slight temporary effect during construction and a neutral or slight permanent effect during operation;
- Human health – slight adverse temporary effect during construction and a neutral or slight temporary effect during operation;
- Soil resources – slight adverse permanent effect during both construction and operation;
- Groundwater/surface water quality – neutral temporary effect during construction and operation;
- Hydrogeological regime – minor adverse temporary effect during construction and a neutral/minor adverse temporary effect during operation.

As these impacts are considered to be non-significant or temporary and based on the limited potential for geologically important sites being present, it is considered there will be a **neutral** impact on geology, soil and ground conditions.

6.3 Mitigation and enhancement

The proposal has been designed, as far as possible, to avoid and minimise impacts and effects on the geology and soils environment. Prior to the main construction works, there will need to be a period of diversion for utility undertakers' apparatus. Consultation is taking place with United Utilities to establish how their assets will be protected; this will be considered further at the detailed design stage.

The ES states that embedded mitigation includes:

- Sustainable reuse of soils implemented through good practice as set out in Defra's "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites";
- Environmental Management Plan which provides information on mitigation and management of environmental effects;
- Piling risk assessment (PRA) to ensure selected piling methods associated with new structures does not introduce contamination pathways into the aquifer underlying the scheme;
- Hydrogeological risk assessment to inform detailed design works associated with Mottram Underpass and cutting, including mitigation measures.

No mitigation has been included for agricultural soils as none of the affected land is considered BMV quality. However, as set out in the ES, a soil management specialist will be employed by the contractor to ensure soils which are stripped, stockpiled and restored are done so correctly.

7 Material Assets and Waste

Material assets and waste were assessed within Chapter 10 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction. It also identifies mitigation measures recommended for any potentially significant adverse effects.

7.1 Context

The ES states that the material assets and waste assessment process consisted of the following:

- Review of relevant waste legislation and guidance to identify materials and waste management objectives and targets;
- Establish the local baseline capacity of waste management infrastructure;
- Review of the Bill of Quantities (BoQ) to establish the quantities and types of materials to be used and wastes to be generated during construction;
- Identify mitigation measures to reduce, re-use, recycle and/or recover materials and wastes from the scheme, including commitments made by the Principal Contractor to reduce material usage and maximise waste to be diverted from landfill;
- Identify and assess the impacts of the scheme by comparing the information in the BoQ against the baseline data.

7.2 Summary of impacts

Material assets

With regard to construction, material assets would be consumed to build the link roads. The estimated potential material asset quantities to be consumed by the development of the proposal are shown in the below table. These would be from primary sources (e.g., no recycled content and would all be imported to site from regional supplies) and represent a worst case before mitigation measures are implemented.

Table 7: Material quantities

Material asset	Primary material quantity (m^3)	Primary material quantity (tonnes)
Aggregate	314,913	705,406
Asphalt	70,988	149,074

Concrete	16,720	40,129
Steel	157	1,224

The proposal would not directly sterilise any Mineral Safeguarding Areas (MSAs) or peat resources; therefore, there are no direct impacts on these receptors.

The material quantities have been summarised from the following components which will be needed to construct the proposal:

- Road restraints;
- Drains, chambers, gullies, headwalls and outfalls;
- Sub-base and base;
- Binder and wearing course;
- Kerbs;
- Footways & cycle paths;
- Lighting columns;
- Road signs;
- Traffic signals;
- Bollards;
- Piles.

The Principal Contractor has committed to use aggregate with at least 30% recycled content, in line with the regional percentage target.

The delivery of such materials will bring additional traffic to and from the site, with workers using both personal and professional vehicles. Impacts of construction traffic are considered within Section 13.

As these impacts are considered to be non-significant and in line with standard construction methods, it is considered there will be a **neutral** impact on material assets.

Waste

During construction, waste would be generated and require disposal. The estimated potential quantities of waste to be generated by the proposal are shown in the below table. These quantities represent a worst case before mitigation measures are implemented.

Table 8: Waste quantities

Waste type	**Waste quantity (m^3)**	**Waste quantity (tonnes)**

Mixed construction & demolition waste	575	500
General office waste	381	80
Plastic	171	24
Wood / timber	529	180
Mixed metals	286	120
Paper & cardboard	25	5
Soil	533,686	667,108
Total	**535,653**	**668,017**

As these impacts are considered to be non-significant and will align with standard waste management, it is considered there will be a **neutral** impact on waste.

7.3 Mitigation and enhancement

Mitigation measures align with the waste hierarchy, depicted below.

Figure 8: Waste hierarchy

The ES states that the assessment has been undertaken with consideration of embedded mitigation and best practice which would be used during construction and operation. The actions taken to reduce material asset use/material optimisation and waste generation at design stage are shown below:

- shortened underpasses in various areas;
- reduced footprint of junctions;
- reduced road connection lengths;
- rationalised/reduced site compounds;

- Strict adherence to the Environmental Management Plan (EMP) and the Register of Environmental Actions and Commitments (REAC)
    - The next iteration of the EMP will include a Materials Management Plan (MMP) and a Site Waste Management Plan (SWMP), which will be developed prior to construction and secured as requirements in submission of the REAC.

Mitigation for the additional construction traffic will also need to be incorporated in the EMP to ensure impact on local roads and residents is reduced as much as possible (refer to Section 13).

With regard to enhancement, the appointed Principal Contractor is exploring opportunities for the use of modular abutments for the River Etherow bridge and for the use of modular units on the underpass. These opportunities would be developed further at the detailed design stage.

A stretch target of 40-50% recycled content for the region has also been set by the appointed Principal Contractor, through working with the supply chain and designing the road surface to best suit recycled content. These actions would support responsible material procurement. Discussions would also take place with the supply chain to use reusable packaging and take back unused materials, instead of them being disposed.

8 Air Quality

Air quality was assessed within Chapter 5 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

8.1 Context

The ES details that a qualitative assessment of the effects on air quality from construction has been undertaken in line with DMRB guidance, taking into account the nature of any proposed construction activities that have the potential to generate dust and the location of sensitive receptors. The air quality study area for assessing potential impacts of construction dust during the construction phase is defined as the area within 200m of the boundary of the footprint of the proposal's construction activities.

For operational effects, the assessment was undertaken to determine whether levels of NO_x, NO_2 and PM_{10} would exceed air quality thresholds. The study area is defined as the area within 200m of the roads meeting the traffic screening criteria within the DMRB LA 105 air quality standard.

The key receptors which can be impacted by changes in air quality are human health receptors such as residential properties, schools and hospitals; in addition to ecological receptors such as statutory designated sites (Sites of Special Scientific Interest) and non-statutory designated sites (Local Wildlife Sites and Local Nature Reserves).

There are two identified AQMAs within the study area:

- Greater Manchester Air Quality Management Area – jointly designated by local authorities within Greater Manchester and includes areas within the Tameside Metropolitan Borough Council area (Figure 2); and
- Glossop Air Quality Management Area – designated by High Peak Borough Council, an area encompassing the properties between the A626 Glossop Road/A57 Dinting Vale junction and the A57 Dinting Vale/Dinting Lane junction.

GM is seeking to implement a CAZ from 30 May 2022[10] which will cover most of the study area. This CAZ will be 'category C' which requires buses, taxis, lorries and vans to meet certain emission standards if driving in the zone. However, the CAZ excludes the strategic road network so vehicles on the A57 will not be required to comply.

There are four ecological sites with statutory designations within the air quality study area, three of which are considered to be sensitive to changes in air pollution, such as nitrogen dioxide:

[redacted]

- Dark Peak Site of Special Scientific Interest (SSSI);
- The Peak District Moors Special Protection Area (SPA);
- The South Pennine Moors Special Area of Conservation (SAC); and
- Huddersfield Narrow Canal SSSI.

8.2 Summary of construction impacts

Dust emissions

The ES states that there is potential for elevated dust deposition and soiling at properties within 200m of the construction site boundary, resulting from the construction works. The amount and distribution of dust emission would vary depending on the duration and location of activity, weather conditions, and effectiveness of suppression measures.

The proposal has the potential for construction dust to affect approximately 1,911 human health receptors as shown in the below table. Dust sensitive receptors are located in Mottram, Woolley Bridge, Hollingworth, Brookfield, and Hattersley. There are no designated ecological sites within 200m of the construction site boundary.

Table 9: Approximate number of sensitive receptors likely to be affected by construction dust (Environmental Statement, Highways England, 2021)

Total number of receptors	Receptor count in distance bands		
	0-50 m	50-100 m	100-200 m
1911	687	440	784

As the proposal is a bypass project, it is considered to have a large dust risk potential. As there are sensitive receptors within 50m of construction activities, the overall construction dusk risk potential is high, resulting in a **negative** impact. However, these effects will be temporary and can be minimised through mitigation measures.

Construction traffic

The effects of construction traffic are temporary, and the effects of any changes are unlikely to significantly affect air quality which is primarily focused on annual mean concentrations. Therefore, this is considered to be a **neutral** effect with regard to air quality.

Construction traffic is considered in more detail within Section 13 □ of this report.

8.3 Summary of operation impacts

Human health

Concentrations of pollutants were estimated for 2025, the scheme's anticipated opening year, at 621 human health receptors; these cover both the current road route and future route. Concentrations of NO_2 were then compared to relevant national air quality standard (AQS) objectives[11] to determine where there could be exceedances.

Without the development of the link roads proposal, 76 out of 621 human health receptors demonstrated an annual mean exceedance for NO_2. When those 76 receptors were recalculated once the scheme is in place, 75 had a decrease in annual concentrations and one had a small increase (i.e., less than 2.0µg/m³). Those with decreases are located adjacent to the A57 in Mottram, at the Gun Inn Junction, and adjacent to the A628 north of the Gun Inn Junction. The reduction in traffic on the A57 Hyde Road, Mottram Moor and Woolley Lane results in a reduction in emissions from these roads and an associated reduction in concentrations at adjacent receptors. Of the 75 receptors showing a decrease, 60 decrease to below the annual mean NO_2 AQS objective.

There is one receptor which exceeds the annual mean NO_2 AQS objective with or without the link roads and will slightly worsen (by 1.7 µg/m^3) with the development of the proposal, due to an increase in traffic as vehicles choose to switch routes from the A626 to utilise the A57.

With the addition of the new link roads, there are still exceedances at 16 receptors in 2025. However, 15 of these (located adjacent to the A628 north of Gun Inn Junction) demonstrate a decrease or a relative improvement in air quality.

The proposal is anticipated to improve air quality in Mottram-in-Longdendale through reduced congestion and removal of traffic from residential areas. Therefore, there is an overall **positive** effect because of the proposal with regard to human health.

Designated habitats

The ES states that total nitrogen deposition was modelled for ecological receptors within relevant ecological sites. These cover one SAC (South Pennine Moors), one SPA (Peak District Moors), three SSSI, four Local Nature Reserves (LNR), and 71 non-statutory designated ecological sites.

The change in nitrogen deposition rates associated with the proposal are less than the DMRB LA 105 designated habitat screening criteria and the magnitude of change of the nitrogen deposition is less than 0.4 kg N/ha/yr at all relevant statutory designated sites (SSSI, SAC, SPA and LNR). Therefore, the proposal is not expected to have a significant effect on the designated habitats within these sites and is considered to have a **neutral** impact.

[redacted]

8.4 Mitigation and enhancement

Any adverse air quality effects due to construction dust will be temporary and can be minimised by the application of standard and appropriate mitigation measures set out in the Outline EMP. Measures could include (but are not necessarily limited to):

- Regular water-spraying and sweeping of unpaved and paved roads to minimise dust and remove mud and debris;
- Using wheel washes, shaker bars or rotating bristles for vehicles leaving the site where appropriate to minimise the amount of mud and debris deposited on the public highway;
- Sheeting vehicles carrying dusty materials to prevent materials being blown from the vehicles whilst travelling;
- Enforcing speed limits for vehicles on unmade surfaces and site haul roads to minimise dust entrainment and dispersion;
- Ensuring any temporary site roads are no wider than necessary to minimise their surface area;
- Damping down of surfaces prior to their being worked;
- Storing dusty materials away from site boundaries and in appropriate containment (e.g., sheeting, sacks, barrels, etc.).
- Deliveries to the construction site to be programmed to avoid morning and evening peak times for traffic and pedestrian movements to/from schools.

9 Landscape and Visual Impacts

Landscape and visual effects were assessed within Chapter 7 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

9.1 Context

A detailed landscape and visual assessment was undertaken in accordance with the requirements of DMRB LA 107 standard. The approach included both desktop study and site survey to establish the nature and extent of potential receptors, to identify likely sensitivity, and to record the potential landscape and visual effects resulting from the proposal.

The study area landscape is influenced by the adjacent Pennine moors, and the deeply incised, steep valleys that characterise the transition from moorland to urban area. The elevation of the area is generally between 100m and 300m Above Ordnance Datum (AOD between the lower plains and higher Pennine moors). The ES states that the landform is predominantly undulating lower valley floor landscape with rounded hills and shallow to steep valley sides, incised by steeper cloughs in places.

As stated in the ES, the underlying geology is of interbedded Millstone Grit combined with shales and siltstones, with the valley being mostly covered with glacial till deposits. Soils are generally poorly drained and waterlogged. Where the soils are permanently wet, they tend to be rich in organic matter and fragmented peat deposits are often found. Along river channels, such as the River Etherow, soils tend to be alluvium, created, and carried by relict rivers.

There are 5 ancient woodlands located or part located within the 1 km study area. These include Westbrook Clough, Dinting Vale Wood, Millbrook Bridge, Westwood Clough and Hurst Clough Local Nature Reserve (LNR). The ES states that all are outside of the DCO limits and therefore unlikely to experience either direct or indirect effects as a result of the proposal. Additionally, field boundaries for the agricultural land within the DCO limits include dry gritstone walls at higher elevations, and hedgerows at lower elevations.

Landscape receptors with the potential to experience change due to the scheme comprise the elements and features of the landscape which are key contributors to the local landscape character (e.g., woodlands, distinctive individual trees, rural lanes or watercourses) and the overall landscape character area. The visual receptors with potential to experience change because of the scheme consist of people in specific locations such as residential properties, community facilities, places of work, PRoW and roads.

9.2 Summary of construction impacts

Landscape

The ES states that the main landscape effects are expected to occur during construction and will be temporary. These include the loss of vegetation, alteration to the landform, the presence of construction machinery as well as the introduction of man-made features.

Construction effects are likely to include the following:

- Vegetation clearance to facilitate construction is anticipated during the initial mobilisation phase. The result would be newly exposed views of the wider landscape and the construction activity therein;
- Demolition of built form which would include properties on Four Lanes, Roe Cross Industrial estate, Old Road, Tollemache Close, Old Hall Lane and Mottram Moor; to facilitate construction of Mottram underpass, Mottram junction and the new junction on Woolley Lane;
- Temporary spoil heaps, material storage, and site compounds would occur throughout the construction phase;
- The introduction of new structures and/or the changes to existing structures specifically at junctions, underpasses and bridges, however, these should be mitigated through the appropriate choice of materials;
- The formation of temporary drainage features within or on the fringes of the construction areas;
- Lighting associated with construction and night-time working;
- Plant, machinery and traffic management would be conspicuous in views of the existing A57 corridor, highlighting the presence of the A57 and the changes occurring within it;
- Temporary realignments and diversions as part of traffic management operations.

Although it is considered this would have a **negative** impact upon landscape, the temporary nature of the construction works means that this impact is also primarily temporary. These would, to a large degree, subsequently be mitigated through the final design, leading to a change to the operation phase of development and subsequent impacts.

Visual

The visual receptors may also be affected by views of heavy goods vehicle (HGVs), temporary construction lighting and other tall machinery used within the construction site. However, the potential visual effects of construction activities would be temporary, short-term, and reversible.

As stated in the ES, temporary impacts to visual receptors during construction are likely to result from:

- Vegetation clearance to facilitate construction is anticipated to occur during the initial mobilisation phase. The result would be newly exposed views of the wider landscape and the construction activity therein;
- Temporary spoil heaps, material storage, and site compounds would occur throughout the construction phase. The result would be changes to the perception of the existing A57 and the broader landscape associated with the corridor;
- The formation of temporary drainage features within or on the fringes of the construction areas would, in isolated locations require small pockets of additional vegetation clearance and the introduction of engineered slopes to form the ponds;
- Lighting associated with construction and night-time working;
- Plant, machinery and traffic management would be conspicuous in views of the existing A57 corridor, highlighting the presence of the A57 and the changes occurring within it;
- Temporary realignments and diversions as part of traffic management operations.

Impacts on visual amenity would result from the construction of the associated large-scale earthworks and clearance of vegetation. More specifically, visual receptors in proximity to the following areas are more likely to experience a significant adverse effect:

- Demolition of built form which would include properties on Four Lanes, Roe Cross Industrial estate, Old Road, Tollemache Close, Old Hall Lane and Mottram Moor; to facilitate construction of Mottram underpass, Mottram junction and the new junction on Woolley Lane;
- Sequential views from footpaths and traffic routes temporarily be towards the construction areas;
- The introduction of new structures and/or the changes to existing structures specifically at junctions, underpasses and bridges;
- Structures including overbridges, underpasses (both vehicular and non-motorised user underpasses) and retaining walls.

Although it is considered this would have a **negative** visual impact, the temporary nature of the construction works means that this impact is also primarily temporary.

9.3 Summary of operation impacts

Landscape

The ES states that it is expected that the scale of the scheme would not result in significant effects for landscape character at a national or regional level. The potential effects on the local landscape character would be focused around

Mottram Moor underpass, the Bridge over the River Etherow, Old Mill Farm underpass, junction at Woolley Lane, and Carr House Lane underpass.

Landscape effects expected from implementation of the link roads are:

- Alteration of the local landscape character affecting the perception of landscape due to changes to existing landscape elements such as established woodland;
- Changed appearance of landform due to new earthworks such as embankments and cuttings and drainage features;
- The addition of new structures including Mottram Moor underpass, the Bridge over the River Etherow, Old Mill Farm underpass, and Carr House Lane underpass;
- Introduction of new infrastructure elements including retaining walls, signage, drainage features and access tracks that could affect the pattern of the localised landscape;
- The introduction of lighting to previously unlit areas.

With regard to likely night-time effects, as a result of increased levels of light, slight damage is anticipated to the existing night-time character as a result of increases in the sources of light within the landscape.

It is expected that the proposal would not result in a large magnitude of change on landscape character at a national or regional level but there would be noticeable changes at a local level, thereby having a **negative** impact.

Visual

The ES states that the operational visual impacts of the proposal are most likely to be long-term and permanent, although it is expected that the proposed mitigation planting would mature gradually following the construction phase. The potential effects expected from operation of the link roads are:

- Change in views as a result of new earthworks such as embankments and cuttings and drainage features;
- The addition of new structures including Mottram Moor underpass, the Bridge over the River Etherow, Old Mill Farm underpass, and Carr House Lane underpass;
- Introduction of new infrastructure elements including retaining walls, signage, drainage features and access tracks that could affect the pattern of the localised landscape;
- The ‘opening up’ of the views due to vegetation removal;
- The introduction of lighting to previously unlit areas.

As there would be noticeable changes at a local level, it is considered there would be a **negative** visual impact.

9.4 Mitigation and enhancement

As detailed in the ES, the proposal includes a range of mitigation measures for landscape character and visual amenity. The design itself has been an iterative process developed through optioneering, in order to identify the most suitable location and development of the design to minimise landscape and visual impacts.

The strategy proposed encompasses mitigation requirements and potential enhancements for the ecology and landscape assets, as illustrated in the Environmental Masterplan (see Figure 3 and Figure 4). The potential proposed mitigation focuses on the following principles:

- Retaining and protecting existing mature trees and hedges wherever possible, maintaining important visual screening and biodiversity habitat;
- Replacing any habitat losses as a minimum to ensure no net loss of biodiversity and indeed seeks gains as set out in paragraph 11.2;
- Retaining natural character and planting local native species;
- Proposed tree planting to provide screening to sensitive receptors; and
- Proposed earth contouring environmental bund and integrated planting.

Mitigation incorporates embedded landscape and visual mitigation measures, as well as the use of appropriate materials; these are considered integral to the design of the link roads. These measures are designed to reduce disruption, visual intrusion and to assist in landscape integration and are summarised as follows:

- The construction programme would be kept to the minimum practicable time to reduce the duration of any landscape and visual impacts;
- Construction plant and materials storage areas would be appropriately sited to minimise their landscape and visual impact;
- Work during hours of darkness would be avoided as far as practicable, and where necessary, directed lighting would be used to minimise light pollution/glare;
- Construction would be managed such that the loss of any existing vegetation not affected by the permanent works is minimised;
- Links to PRoW and footpaths would be reinstated and created (where severance or diversion has resulted from the link road construction);
- A new green space has been included at Roe Cross Road / Old Road, above the Mottram Underpass;
- False cuttings as part of the landscape design strategy, acting as a visual barrier and help to integrate the link roads into the existing landscape;
- The lighting design would seek to minimise obtrusive light pollution. The design of the lighting would also consider potential landscape and ecological effects;

- Alternative design options have been included for earthworks embankments along the A57 Link Road between the Mottram Moor and Woolley Bridge junctions. Profile shapes and habitats created were made more naturalistic to reflect the existing surroundings, and the reduced footprint of the scheme avoids tree removal and ensures future obligations for maintenance during the operation phase are minimised.

Whilst the above embedded measures would reduce the effect from construction, the effects cannot be wholly mitigated due to the nature and extent of construction and some adverse impact would still be experienced. Therefore, essential mitigation is incorporated to reduce effects which cannot be entirely mitigated by embedded mitigation and is indicated in the Environmental Masterplan (see Figure 3 and Figure 4). These measures include (but are not limited to) amenity grass planting, shrubs with intermittent tree planting, scrub planting, native species hedgerows, individual trees, water bodies and associated plants, noise barrier-built elements, etc.

All construction mitigation measures (embedded and essential) would be secured through the EMP and REAC. Detailed landscape design would be undertaken at a later stage and the mitigation design would be further detailed and refined during this process, including the consideration of enhancement opportunities where possible.

Detailed landscape design would include a planting schedule, a specification and a Landscape and Ecological Management Plan (LEMP). The LEMP would be based on the requirements outlined in the EMP and REAC. This would include information on long-term operational management of the landscape and ecological resource within the proposal’s boundary.

10 Archaeology and Cultural Heritage

Cultural heritage was assessed within Chapter 6 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

10.1 Context

The contemporary and historic landscape comprises a mixture of undulating pastural landscape, interspersed by post-medieval settlement and development predominantly of 19th century date, and is heavily defined by the route of the A57 and the River Etherow.

As detailed in the ES, the likely impact of the link road proposal on individual heritage assets has been assessed, based on consideration of the value of the heritage asset and the scale of impact that the proposed development would have on this. This assessment has been undertaken using professional judgement informed, where appropriate, through liaison and consultation with the wider assessment team, with particular reference to traffic modelling, and the landscape and visual, noise and air quality assessments.

The ES assessment on heritage assets included a comprehensive desk-based review of data from the following sources:

- National Heritage List for England (NHLE), maintained by Historic England, for information on scheduled monuments, listed buildings, registered parks and gardens and registered historic battlefields;
- Local authority Historic Environment Records (HER) and other third-party data sets for non-designated heritage assets;
- Greater Manchester Archaeological Advisory Service (GMAAS) HER;
- Derbyshire County Council (DCC) HER;
- Portable Antiquities Scheme (PAS);
- Archaeological Data Service (ADS) for heritage data including grey literature reports, archaeological journals, and the Excavation Index for England;
- Historic England Research Records, accessed through Heritage Gateway;
- Mottram-in-Longdendale Conservation Area Appraisal and Management Proposals; and
- Tintwistle Conservation Area Character Appraisal.

In addition, a walkover survey was undertaken between 5th and 6th October 2020 to inform the heritage impact assessment.

Two study areas were applied through this assessment:

- 1km study area for designated heritage assets (containing 50 assets); and
- 500m study area for non-designated heritage assets (containing 104 assets).

Of the designated assets, Mottram-in-Longdendale Conservation Area (HA2) includes part of the existing A57 route. Of the non-designated assets, seven are located within the DCO boundary:

- HA54 Pottery and Hearths;
- HA78 Cottages on North Side of Old Hall Lane;
- HA100 Steel (site of);
- HA111 Mottram Old Mill (site of);
- HA112 Ridge and Furrow, Mottram;
- HA139 Waterside branch of the Great Central Railway, Dinting;
- HA143 Structure, Mottram (site of).

GMAAS stated that Tameside Archaeological Society has investigated a number of fields on the eastern flank of the hill north of Paddock Farm and more recently around Grange Farm. The evidence from Paddock Farm (i.e., a stone ridge or bank running roughly north to south and possibly marking the edge of a lynchet) indicated early land clearance from prehistoric activity. Additionally, evidence from archaeological investigations has confirmed that the area around Grange Farm was visited in the Mesolithic and Neolithic periods. A small fragment of cobalt blue bead also discovered in the area is an Iron Age object.

The first tranche of archaeological trial trenches was excavated by Oxford Archaeology North along the proposed route of the A57 Link Roads in the summer of 2021. This yielded a number of prehistoric worked flints, together with several features of probable prehistoric date, indicating the area is potentially of considerable archaeological importance.

The following two figures depict designated and non-designated heritage assets within the ES study area. A full index of heritage assets within the study areas is located in Appendix 6.1 of the ES. Environmental constraints of the scheme, including listed buildings, can be found on Figure 5 within this report.

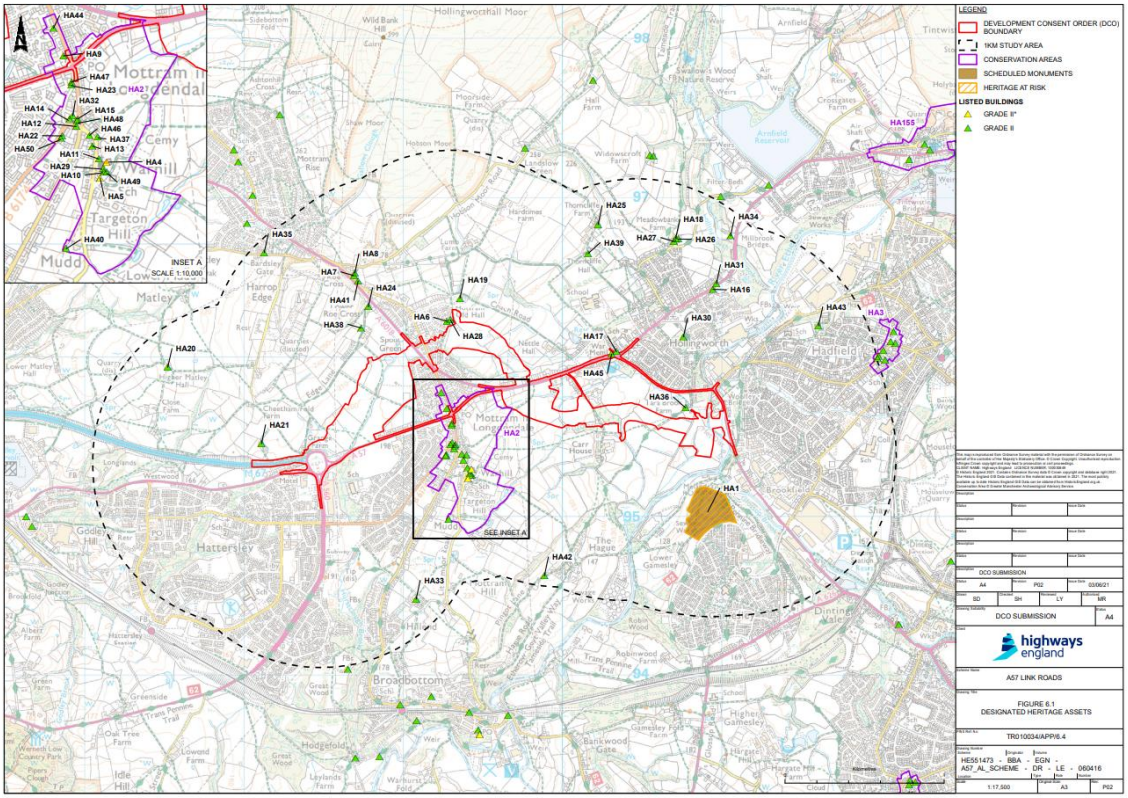

Figure 9: Designated Heritage Assets[12]

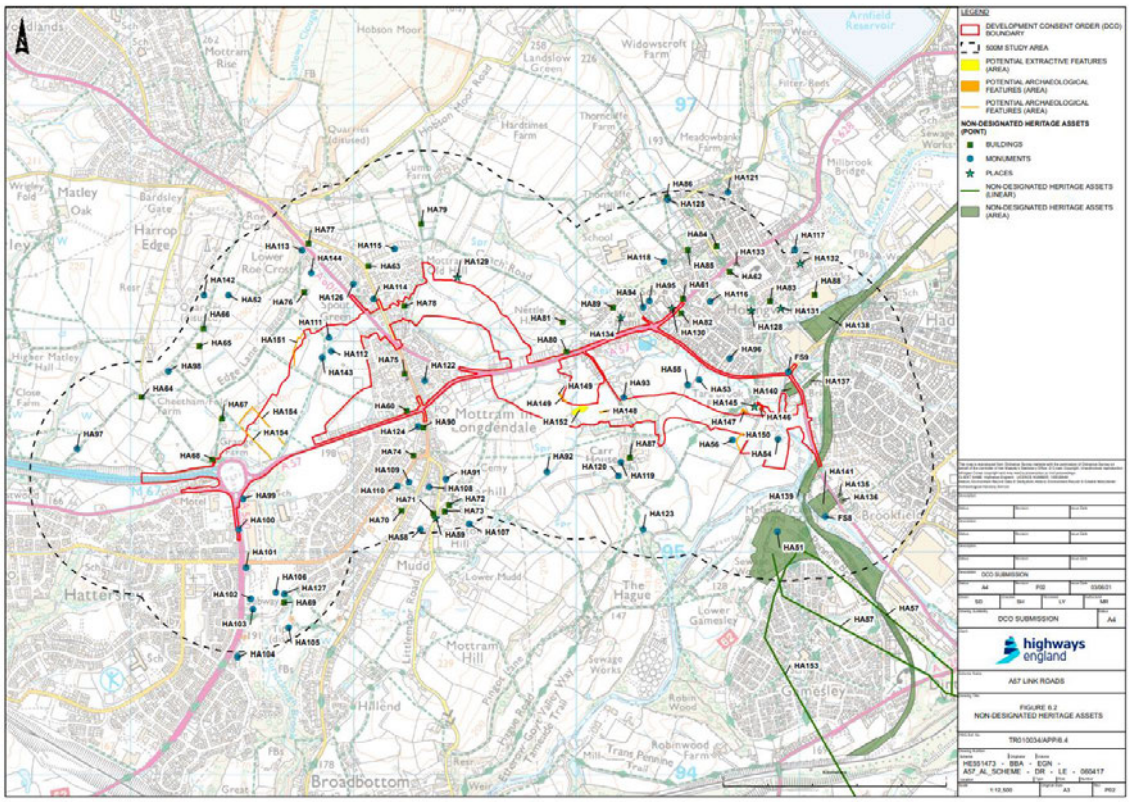

Figure 10: Non-Designated Heritage Assets[13]

10.2 Summary of construction impacts

The ES states that during construction, direct physical impacts could occur as a result of earthmoving operations, creation of site compounds, road formation/ construction and construction of proposed overbridges and other structures. Setting impacts may also occur due to of the introduction of construction machinery, compounds and vegetation removal with the potential to disrupt the prominence and influence of built heritage within the landscape.

Any direct physical impacts would be permanent. Impacts to setting during construction would generally be temporary, short-term and reversible, with the exception of clearance of vegetation, which would be a medium-term impact due to time required for reinstatement planting to mature.

Designated assets

The ES states impact on the setting of Dial House (HA6) and Dial Cottage (HA28) – both assets of medium value – would occur as a result of construction works including site clearance, demolition of residential properties along Old Hall Lane, excavation of Mottram Underpass, and lighting of the construction works. However, value of these assets due to their architectural and historic interest of their design and fabric, and continued legibility of their relationship with Mottram Old Hall (HA19) would continue to be understood.

Ivydene, Mottram Old Hall (HA19) – an asset of medium value – will experience temporary noise and visual intrusion as a result of construction works including site clearance. Land take from the outer park associated with the hall will be needed for construction of the cutting to the east of the Mottram underpass, although gardens around the house will not be impacted. The asset's value deriving from its historic and architectural interest would continue to be understood.

Additionally, temporary noise and visual impacts resulting from construction will affect the setting of Tara Brook Farm (HA36), an asset of medium value. The presence and proximity of construction works including the movement of plant, piling activities, earthworks construction, and lighting of the construction site would result in noise and visual intrusion on the asset's setting. The historic and architectural interest of this asset as a post-medieval vernacular farmstead would, however, be maintained.

Other temporary impacts as a result of the scheme would impact high value asset Melandra Castle Roman fort (HA1), medium value asset Mottram-in-

[redacted]

Longdendale Conservation Area (HA2), high value asset Church of St Michael and All Angels (HA4), medium value asset Lower Roe Cross Farmhouse (HA24), and medium value asset Edge Lane House (HA38). No impacts are predicted on the remaining designated heritage assets.

Therefore, there would be a temporary moderate adverse effect on setting of the four following receptors:

- Dial House – temporary setting impacts due to construction of underpass and cutting;
- Ivydene, Mottram Old Hall – temporary setting impacts due to noise and visual intrusion from construction;
- Dial Cottage – temporary setting impacts due to noise and visual intrusion from construction;
- Tara Brook Farm – temporary setting impacts due to noise and visual intrusion from construction.

The impact on these designated assets would be **negative**, although temporary due to construction works.

Non-designated assets

Construction of the link roads is considered to result in the removal of all subsurface archaeological remains, removing the potential for operational impacts.

The ES states that noise and visual intrusion would result on the setting of Grange Farm (HA68) due to construction works. However, this impact will be reversible.

Construction of the Mottram Underpass would remove the Cottages on the north side of Old Hall Lane (HA78). These cottages are estate cottages constructed for Mottram Old Hall and designed in a modest gothic style. Evidence suggests the cottages were replaced in the late 19th century, with the building being subject to further alteration with a modern addition. However, this asset has been assessed to be low value due to its limited historic and architectural interest.

Temporary impacts, such as noise and visual intrusion due to construction works, would result on the setting of seven non-designated assets:

- Paddock Farm (HA66), low value;
- Mainsgrass Farm (HA67), negligible value;
- Old Mill Farm (HA76), low value;
- Middle O'Th'Hill (HA80), low value;
- Nettle Hall (HA81), low value;
- Carr House (HA87), medium value;
- Dry Mill (HA90), low value.

As stated in the ES, construction of the proposal would substantially remove any surviving structural subsurface remains associated with the site of the Isolation Hospital at Carrhouse Lane (HA93), which is an asset of low value. No above-ground remains of this asset survive; any below-ground archaeological remains are likely to have been truncated by ploughing for tree planting across the site in the mid-2000s.

Additionally, clearance works, excavation of the road in cutting, and southern embankment for Mottram Underpass would result in the total loss of the site of Mottram Old Mill (HA111), an asset of low value. Whilst a possible medieval date of establishment was previously suggested for this mill based on documentary evidence, archaeological evaluation of the site undertaken in 2001 identified evidence of post-medieval activity only. In consideration of the value of the site as a smallscale post-medieval mill that partially survives above ground, construction of the link roads has been assessed to result in a permanent major adverse impact. The construction works would also result in the loss of a structure (HA143) to the immediate south-west of Mottram Old Mill (HA111).

The core of former Woolley settlement (HA145), assessed as low value and associated with Tara Brook Farm (HA36), is situated 38 m north of the proposed site. Early Ordnance Survey plans show a limited extent of settlement development. Construction of the access track to the southeast or Tara Brook Farm would permanently remove or truncate any associated archaeological remains of the settlement within the DCO boundary in this area.

It is considered construction effects on non-designated assets would result in a **neutral** impact due to the primarily low value of the affected assets. Further details on non-designated assets can be found in Chapter 6 of the ES.

10.3 Summary of operation impacts

Designated assets

The ES states that impacts on the setting of Dial House (HA6) and Dial Cottage (HA28), assets of medium value, would result from the operation of the link roads. The value of these assets comes primarily from their historic and architectural interest as polite buildings of mid-18th century, being enhanced by their relationship with Mottram Old Hall and setting on Old Hall Lane. This setting on Old Hall Lane would continue to be understood, with the sunken, discrete character of the lane adjacent to the assets being retained due to its topography and mature planting along its eastern edge. The cutting for Mottram Underpass would be located approximately 50m to the south-east of the buildings. Views towards Dial House from Old Hall Lane which contribute to the asset's value would be maintained.

The link roads proposal would introduce a notable element of highways infrastructure into the setting of Tara Brook Farm (HA36), as the A57 Link Road and noise barriers along the top of the embankment would be circa 90m from the asset's principal elevation, forming a prominent new element within its setting. However, woodland edge planting on the embankment would, over time, screen views of the proposal from Tara Brook Farm, reducing visual intrusion.

The proposal would also result in permanent impact on the setting of Melandra Castle Roman fort (HA1), an asset of high value, due to the impact of the new offline bypass on views north and north-east from the monument affecting its setting.

Mottram-in-Longdendale Conservation Area (HA2) (medium value) covers the historic core of the settlement, evidenced in its development from the medieval period to current day. Presently, high traffic on the A57 detracts from the character and appearance of the designated area including historic buildings. Implementation of the scheme would substantially reduce traffic levels, including HGVs, thus reducing noise and visual intrusion for the area. Additionally, the A57 Link Road and Mottram Back Moor Junction would form a new feature within the setting of the conservation area to the north-east which would, in conjunction with lighting, diminish the open agricultural character of the setting in this area. However, the ES states that the reduction of traffic within the conservation area would remove a substantial source of blight, thus enhancing its character and appearance along the A57.

The Traffic Data has identified that traffic levels along the north-south routes of Market Street (B6174) are predicted to increase as a result of the scheme, which would adversely affect the conservation area along this route. Additionally, reduced queuing times would result from greater capacity at the junction with the A57. The setting of HA2 would also be permanently altered, due to its relationship to surrounding landscape at the edge of the Pennines and the arrival of the link road. However, visual impact would reduce over time due to maturation of landscape planting.

Additionally, the ES states that impacts on the settings of seven listed buildings within Mottram are predicted to result from operation of the proposal. These assets are a mixture of building types which evidence the history and development of Mottram in the post-medieval period. These comprise residential buildings: Manor House (HA14), Crown Pole House (HA12), Old Post Office Farm (HA47), and Number 4 Back Lane (HA48); as well as Mottram Court House, the Village Stocks and Crown Pole which are located in the Market Place. These buildings are considered medium value assets, with their setting and position on street contributing to their value. The construction of the link roads has been assessed to result in a permanent minor adverse impact on these assets of medium value.

Therefore, during operation of the link roads, there would be a moderate adverse effect on the following designated asset:

- Tara Brook Farm (HA36) – permanent impact on setting due to presence of the scheme; mitigation of these impacts as far as possible through landscape design and noise mitigation.

The impact on Tara Brook Farm would therefore be **negative** as a result of the scheme, whilst Mottram-in-Longdendale Conservation Area would see a primarily **positive** impact as a result of the link roads due to overall decreased traffic levels and congestion in the A57 corridor. It is considered that the significant decrease in east-west traffic flows and the positive impact on the conservation area will outweigh any negative impacts as covered in the preceding

paragraphs. Further details on designated assets can be found in Chapter 6 of the ES.

Non-designated assets

The Mottram Moor Link Road portion of the proposal will result in increased intrusion on the setting of Grange Farm (HA68), which is an asset of low value deriving most of its value from the historic fabric and development of agrarian landscape. The presence of the proposal, extending eastwards from the existing M67 junction, would increase noise and visual intrusion on the setting of the asset, compounding existing intrusion from the presence of the M67 and associated junction. The visual impact would be reduced by landscape planting, screening views from the farm towards the new road.

Dry Mill (HA90), another asset of low value, would have reinforced noise and visual intrusion within its setting as traffic is expected to increase on Market Street. However, predicted reduction in traffic on A57 would open up views to the building.

The link roads proposal would form a large-scale new element within the rural landscape surrounding Old Mill Farm (HA76), Nettle Hall (HA81) and Carr House (HA87). When mature, views to and from the scheme would be screened by woodland edge planting, aiding the integration of the road into the surrounding landscape and reducing its visual impact within the setting of these assets. The value of these assets comes primarily from their historic and architectural interest as historic post-medieval farm buildings and would be unaffected by the proposal.

As mentioned, construction of the link roads is considered to result in the removal of all subsurface archaeological remains, removing the potential for operational impacts.

Therefore, it is considered operation effects on non-designated assets would on balance result in a **neutral** impact due to the primarily low value of the affected assets. Further details on non-designated assets can be found in Chapter 6 of the ES.

10.4 Mitigation and enhancement

Atkins and Oxford Archaeology North have begun investigating the archaeological potential along the proposed A57 Link Roads, in consultation with GMAAS. In addition, a strategy for appropriate mitigation and public engagement has been subject to initial discussions. However, GMAAS considers that further investigation of the buildings proposed for demolition should be carried out to firmly establish their construction date and significance, in accordance with para 205 of the NPPF. This could be achieved through a historic building investigation of any 19th-century (or earlier) buildings that will be lost to demolition.

With regard to essential mitigation, the ES states that a staged programme of archaeological mitigation would be undertaken. Archaeological evaluation works would be undertaken prior to construction, comprising geophysical survey,

archaeological trial trenching and geotechnical monitoring. Two programmes of geophysical survey have already been undertaken; these results have informed the design of a test pitting programme and locations. Additionally, the results of these investigations would be used to determine the location and extent of any required archaeological remediation works either prior to or during construction and would be presented in a proposed Archaeological Fieldwork Strategy.

No mitigation measures have been proposed for construction impacts on Dial House, Ivydene, Dial Cottage, and Tara Brook Farm as these impacts are considered to be temporary and reversible. However, as the operation impact on Tara Brook Farm is considered to be permanent and irreversible, embedded mitigation has been included in the scheme through design of the landscape planting to the south of the asset in order to screen views towards the link road and aid its integration into the local landscape.

Measures to avoid or prevent impacts on historic assets have been incorporated into the design of the scheme and assessed as an integral part of the proposals above. This embedded mitigation is detailed in Chapter 2 of the ES. Measures of particular relevance to the archaeology and heritage assessment include the following:

- Restraining the design to reduce land take for the DCO boundary as far as possible. This would reduce the potential for the removal of archaeological remains due to the physical impact of construction.
- The provision of temporary and reversible screening during construction to reduce potential for impacts to the setting of designated heritage assets.
- Retention and protection of planting within the DCO boundary which is not proposed for removal for construction.
- Design of landscape proposals to integrate the Scheme into the surrounding landscape, and reduce visual impacts through screening views of the Scheme.
- Detailed design of landscape planting to the south of Mottram Old Hall (HA19) to maintain long views from the principal elevation of the listed building towards Mottram.
- Refinement of the siting and design of noise barriers to reduce visual impacts on surrounding heritage assets, in line with good design principles.
- Landscape planting around Mottram Back Moor Junction to reduce the prominence of the junction in views north and north-east from Mottram-in Longdendale Conservation Area (HA2).
- Landscape planting to the south of Tara Brook Farm (HA36) to screen the Scheme in views from the listed building and aid its integration into the surrounding landscape.
- Lighting for the Scheme is proposed to be restricted to areas where the carriageway needs to be lit for health and safety reasons. The proposed

lighting would be designed to minimise sky glow, reduce spillage and minimise effects on the surrounding landscape.

During the heritage impact assessment, it was not possible to assign a significance of effect for five non-designated heritage assets, as follows:

- HA148: Cropmark (structural);
- HA149: Cropmark (trackway);
- HA150: Cropmark (linear);
- HA151: Cropmark (linear); and
- HA152: Possible extractive activity.

These assets were identified from analysis of aerial photographs and would be subject to archaeological trial trenching as outlined in ES Appendix 6.2, the results of the trial to inform identification of appropriate mitigation measures.

For more detail on mitigation measures and any residual effects on heritage assets, please refer to Tables 6-5 and 6-6 within Chapter 6 of the ES.

11 Ecological and Nature Conservation

Biodiversity was assessed within Chapter 8 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

In addition, a Habitats Regulations Assessment (HRA) Screening Report was submitted as part of the DCO application. HRA is required by Regulation 63 of the Habitats Regulations for all projects and plans which may have 'likely significant effects (LSE)' on a European Site and are not directly connected with or necessary to the management of the European Site. Stage 1 (Screening) is to test whether a proposal, either alone or in combination with other projects, is likely to have a significant effect. The HRA associated with this proposal was reviewed as part of this report.

11.1 Context

A desk study of biological records and numerous field surveys were conducted to inform the biodiversity assessment within the ES.

In accordance with DMRB LA108, Natural England's Biodiversity Metric 2.0 has been adopted to provide a summary of the scale and nature of biodiversity changes as a result of the proposed link roads. The design has ensured that opportunities to improve biodiversity have been maximised within the permanent land-take of the DCO boundary.

The ES study area was identified by determining the Ecological Zone of Influence (EZoI) of the proposal. The EZoI encompasses all the predicted impacts and subsequent effects of the link roads on nature conservation receptors based on the requirements of the DMRB LA 108 and LA 104, relevant best practice guidelines, and professional judgement.

No European sites (including any potential, possible, or candidate sites) were identified within 2km and no SACs designated for bats were identified within 30km of the proposal.

The proposed scheme does not cross or lie adjacent to, upstream or downstream of, a watercourse which is designated in part or wholly as a European site; nor is it hydrologically or hydro-geologically linked to a European site with a groundwater dependent terrestrial ecosystem.

There are 31 non-statutory designated sites of importance for nature conservation within 2km of the proposal. Two statutory designed sites (both LNRs) of importance for nature conservation lie within 2km of the proposal:

- Hurst Clough LNR: woodland stretching into wildflower meadows where butterflies are common; and
- Great Wood LNR: most trees are oak but in places there are birch, alder beech, and willow.

11.2 Summary of impacts

The ES states that during construction of the link roads proposal, there would be temporary adverse effects on a number of biodiversity features including notable habitats (lowland mixed deciduous woodland, wet woodland, hedgerows, lowland dry acid grassland, and flood plain maire) and protected species including bats, badgers, otter, breeding birds, and priority species (such as common toad, brown hare, and hedgehog). Table 10 proves a summary of all habitat losses and gains within the DCO boundary.

Table 10: Notable habitat losses and gains

Existing habitat	Habitat loss	Habitat gain	Net permanent gain
Lowland mixed deciduous woodland	0.73 ha	6.08 ha	+5.35 ha
Wet woodland	0.11 ha	0.65 ha	+0.54 ha
Lowland dry acid grassland	0.31 ha	1.64 ha	+1.33 ha
Hedgerows	3,312 m	6,000 m	+2,688 m
Flood plain mire	0.3 ha	1.13 ha	+0.83 ha

Within the HRA, the completed DMRB screening matrices and Planning Inspectorate (PINS) screening matrices both conclude that there will be no LSE on either the Peak District Moors (South Pennine Moors Phase 1) SPA or the South Pennine Moors SAC because of air quality impacts. It was determined that construction related emissions are too distant from the European site to have an impact; additionally, traffic modelling showed that operational increases in traffic, considering that new vehicles are cleaner and more efficient, will result in a negligible change in local air quality along the affected road network (ARN).

As there are no anticipated significant adverse effects resulting from the scheme, it is considered that the proposal would have a **neutral** effect on ecological and nature conservation.

11.3 Mitigation and enhancement

The ES states embedded mitigation measures have been incorporated into the proposal's design to avoid and prevent effects, including environmental working practices to ensure adequate pollution control measures are implemented and use of precautionary methods of working (PMW) during construction to minimise risks to individual animals of protected species where licences would not be required. Impacts during construction would be controlled through strict adherence to the embedded measures within the Outline EMP and REAC.

The link roads proposal would result in an increase in notable habitats, in terms of area and quality, to ensure that sufficient and increased habitat is provided across the scheme (refer to earlier Figure 3 and Figure 4). Essential mitigation has been provided for protected species through increased breeding opportunities (including a dedicated bat structure and a range of bat/bird nesting boxes) and several crossing points to aid connectivity across the scheme. Mitigation measures under licence (for bats and badgers) will be required as a result of the legal protection afforded to these species.

Monitoring, to ensure the success of the proposed mitigation measures, has been provided including long-term management plans for the notable habitats and species monitoring programmes.

Mitigation and compensation proposals which are described within the ES have taken into consideration the requirements of the NPS, by creating new habitats, minimising habitat fragmentation and providing sufficient essential mitigation for protected species. In addition, off-site enhancement opportunities will be explored during the detailed design stage.

Section 8.8 within the ES provides further details on design, mitigation, and enhancement measures.

12 Road Drainage and Water Quality

Road drainage and the water environment was assessed within Chapter 13 of the ES to determine effects of the scheme based on information available at the preliminary design stage. This chapter within the ES outlines baseline conditions and potential impacts during construction and operation. It also identifies mitigation measures recommended for any potentially significant adverse effects.

The detailed Flood Risk Assessment (FRA) and its associated assessment methodology was provided as a standalone document as part of the DCO application. The FRA has also been reviewed to inform this section of the LIR.

12.1 Context

The ES states that the water environment assessment considers surface waters (water quality and hydromorphology), flood risk and ground water (quality and quantity). The Zone of Influence (ZoI) was used to inform the study area and takes into consideration all water features and associated floodplain physically impacted by the proposal and those watercourses in direct hydraulic connectivity within 1km of the DCO boundary. A total of 21 receptors were taken forward for assessment, of which three are Water Framework Directive (WFD) reportable watercourses and one WFD groundwater receptor.

The aim of the FRA is to understand flood risk to and from the proposed development, as well as the management of flood risk through mitigation if required. The assessment considered receptors for flood risk and includes the proposed link roads in addition to committed developments (i.e., cumulative assessment) within the study area. Receptor vulnerability is classified in accordance with NPPF and flood risk (and coastal change) planning practice guidance.

Baseline information was collated from a detailed desk-based study, a site visit and consultation with relevant stakeholders. Six WFD water bodies are within the study area, consisting of five river water bodies and one groundwater body.

The appraisal of flood risk impacts associated with the proposed link roads has considered:

- Increases in upstream water level caused by any restriction in flow;
- Loss of floodplain storage due to infrastructure occupying areas which were previously available for flood storage or flows;
- Loss of floodplain conveyance due to infrastructure crossing existing floodplain and forming a barrier to flow or modifying existing hydraulic links between channel and floodplain;
- Impediment of water flow caused by infrastructure crossing existing drainage channels, causing potential blockage and altering local catchment area boundaries;

- The diversion of watercourses and drains causing changes in catchment boundaries, channel flow capacities and floodplain storage;
- Surface water drainage strategy;
- Remain operational and safe for users during times of flood;
- Effect of below ground structures on groundwater flow and groundwater flood risk.

12.2 Summary of construction impacts

The ES states that construction activities which can impact water receptors include activities that have the potential to impact the water environment in terms of water quality, hydromorphology, flood risk and groundwater. These potential construction impacts are listed below.

- Water quality: involves works to watercourses, construction vehicle movements and associated oil/fuel and runoff, which have the potential to affect water quality (via increased sediment loading and chemicals), affect watercourse ecology and alter watercourse hydromorphology. Contaminated runoff can also infiltrate groundwater and affect water quality.
- Hydromorphology: involves construction compound activities, direct and indirect works to watercourses and temporary structures in watercourses, which have the potential to affect watercourse conveyance and fluvial processes.
- Flood risk: involves temporary structures in watercourses, works in the floodplain, excavation/earthworks, drainage, and increased areas of impermeable surfaces, which have the potential to affect watercourse conveyance, flood risk and flow pathways.
    - Works at the proposed River Etherow crossing are within Flood Zone 3 and will be at risk during construction. Construction works here have potential to interrupt existing flood pathways and conveyance. Throughout the duration of the works, there is expected to be a localised risk to the construction site and activity within this receptor; however, this risk does not impact properties outside of the construction boundary.
- Groundwater: include the same potential impacts as for surface water as well as effects relating to temporary dewatering, construction of deep foundations and road runoff. These have the potential to effect groundwater levels, flow pathways and groundwater quality.

As there are no anticipated residual significant effects resulting from the construction of the scheme, with the exception of flood risk, it is considered that the proposal would have a primarily **neutral** effect on the water environment. The change in flood plain functionality as a result of the link roads would have a

slight adverse effect on relevant receptors and is therefore considered, on balance, **negative**.

12.3 Summary of operation impacts

Potential operation activities which have the potential to impact water receptors are listed below.

- Water quality: involves accidental spillages of hydrocarbons/oils/other chemicals and drainage which have the potential to affect water quality and ecological quality. This can result in, for example, the chemical impairing of the biological functions of freshwater fish, the smothering of vegetation, and the alteration of available habitats for flora and fauna. The operation of the scheme is not expected to have a direct impact on the remaining watercourses.
- Hydromorphology: involves permanent works to watercourses and drainage discharge to watercourses which may cause alteration of natural fluvial processes. This can impede the movement of sediment or fish in the water, reduce culvert capacity to increase flood risk, and cause a loss of habitat availability for aquatic flora and fauna. Despite this, there are no residual significant effects for operation on any receptor for hydromorphology.
- Flood risk: involves permanent works to culverts/bridges, drainage and increases in impermeable surface areas which have the potential to affect watercourse hydraulics and flood risk. The River Etherow, Tara Brook, Hurstclough Brook, Glossop Brook, and Manchester and East Cheshire Carboniferous Aquifers would all be impacted by changes resulting in flood plain functionality. The residual significance of effect of these works on the receptors is Slight Adverse.
- Groundwater: involves the permanent effect of subsurface structure on groundwater flow and accidental spillages and drainage to groundwater. There are no residual significant effects for operation on any receptor for groundwater.

As there are no anticipated residual significant effects resulting from the operation of the scheme, it is considered that the proposal would have a **neutral** effect on the water environment.

12.4 Mitigation and enhancement

The magnitude of impact for each potential effect incorporates embedded mitigation both during construction and operation phases. The assessment considers that even where mitigation is in place, in many cases risk cannot be fully eliminated and, therefore, there is still likely to be a residual risk of an impact occurring (albeit reduced).

The FRA states that with mitigation, the proposal appears not to impact peak water adversely during the 1% annual chance event, including climate change

allowance, in the vicinity of the proposed earthworks and crossing of the River Etherow. The supplementary ground investigation report should be used to further inform the assessment, in terms of groundwater level information in the areas of the proposal not covered by existing data.

Mitigation measures implemented during construction include:

- Timing of any temporary in-channel works should consider seasonality for watercourse biota (Biodiversity Chapter within the ES contains more information);
- Prepare site-specific responses for potential pollution incidents (e.g., spillages) or extreme weather events (e.g., storms) which could cause in increase in sediment run-off.

Mitigation measures implemented during operation include:

- Adherence to the Drainage Strategy in order to manage an increase in run-off.

Additional mitigation should be further considered as part of the potential to achieve biodiversity net gain through habitat improvement and creation as part of the overall approach to water management.

13 Construction Traffic

Construction traffic is identified as a potential impact within the Air Quality and Noise and Vibration chapters of the ES. Additionally, the following application documentation has been reviewed to gather information concerning construction traffic impacts:

- Outline Traffic Management Plan (OTM Plan); and
- Outline EMP.

13.1 Context

The ES states that the effect of any construction traffic, or disruption to traffic during construction, has been considered with reference to the duration of construction works and the expected volume of construction vehicles. The overall duration of construction is expected to be 28 months.

Construction traffic management is expected to be split into five phases:

- Phase 1 – Autumn 2022 to Spring 2023 – Old Hall Road closed and traffic using Old Road diverted to Roe Cross Road.
- Phase 2 – Spring 2023 to Autumn 2023 – traffic restricted on Mottram Moor. Eastbound traffic would be reduced to one lane, but westbound traffic would continue with two lanes.
- Phase 3 – Autumn 2023 to Spring 2024 – temporary realignment of Roe Cross Road with restrictions outside of peak hours for the M67 Junction 4 and Woolley Bridge for modifications/tie ins.
- Phase 4 – Spring 2024 to Autumn 2024 – Mottram Moor Junction completed with diversion of the traffic onto the new junction and conversion of the existing carriageway for access to the local properties.
- Phase 5 – Autumn 2024 to Spring 2025 – de-trunking works to existing A57.

Traffic management is planned during Phases 1-4. As the duration of construction traffic management at any single location will be less than 2 years (each phase is approximately 6 months), further quantitative air quality assessment has not been undertaken.

Chapter 11 (Noise and Vibration) of the ES states that the approach undertaken to assess changes in ‘basic noise level’ (BNL) due to construction traffic was calculated applying methodology found in ‘Calculation of Road Traffic Noise’, 1988 (CRTN).

13.2 Summary of impacts

During the construction phase, an increase in vehicle movements is expected to occur related to the transport of materials, plant and labour to and from site.

However, the number of Heavy-Duty Vehicle (HDV) vehicle movements are not expected to surpass relevant DMRB LA 105 traffic screening criteria. Therefore, substantial traffic management or the need to divert existing traffic during construction is not anticipated.

No single phase of construction related traffic management is expected to be in place for more than 2 years, and the location of traffic management measures will change with each phase as construction of the scheme progresses. As stated in Section 8.2, the effects of construction traffic are temporary, and the effects of any changes are unlikely to significantly affect air quality which is primarily focused on annual mean concentrations.

With regard to noise, following the review of construction traffic data supplied by the appointed Principal Contractor, no roads were found to have the potential to increase the BNL by an amount greater than or equal to 1dB. As a result, all changes in noise level across the planned construction routes are negligible and no construction traffic study area is required.

Planned traffic management activities have been considered as part of the ES assessment. Traffic management activities are planned to take place during both daytime and night-time. Diversions are planned to accommodate the partial temporary closures of Old Hall Lane and Old Road.

The OTM Plan states that during construction, traffic management and capacity restrictions will aim not to cause vehicle delays or queues along the A57 and M67 which extend beyond those currently experienced. Areas of the road network that are particularly sensitive to blocking by queues will be identified, in collaboration with the relevant authorities, and measures implemented to resolve the perceived issues.

The project's **negative** traffic impacts will occur during the construction phase as a result of increased movements and diversions, including increased journey times and disruption due to deliveries of materials and parking for contractors' vehicles. These are considered minor and temporary in duration. Subject to mitigation such as traffic management (discussed below), these impacts can be reduced and become **neutral**.

13.3 Mitigation and enhancement

It is suggested that mitigation for construction traffic should include designated delivery routes/times, adequate parking provided for contractors' vehicles, and advance signage giving prior notice of upcoming works. This should particularly be provided on the Yorkshire side of Woodhead and the Snake Pass.

The appointed Principal Contractor would implement an EMP, which would be approved by the Local Authorities prior to the commencement of construction works. Currently the EMP is in outline form; however, the next iteration will provide further details on the below:

- Environmental management and responsibilities;
- Monitoring and auditing processes;

- Procedures that would be used to complete different construction activities;
- Complaints' response procedures;
- Community and stakeholder liaison processes.

Additionally, an OTM Plan has been produced for the proposed scheme, describing the temporary traffic management (TTM) which will enable the safe and efficient construction of the proposed link roads. It provides further details on how the works will be phased and how associated measures will be implemented whilst minimising impact on road users and other stakeholders.

14 Road Safety

The following application documentation has been reviewed to gather information concerning road safety impacts:

- OTM Plan; and
- Transport Assessment Report (TAR).

14.1 Context

As mentioned in the previous section, the OTM Plan describes the proposed TTM measures that will be followed for the safe and efficient construction of the link roads. This plan provides details of how to deliver the proposal whilst also minimising the impact on the road users and other stakeholders affected by the proposal.

The OTM Plan is a requirement of Part 4 of the Network Management Manual – Traffic Management and Chapter 8 of the Traffic Signs Manual – Roadworks and Temporary situations. The Traffic Management Strategy and design has been developed to ensure that the following key objectives below (taken from the Network Management Manual) are considered and achieved:

- Safety of the travelling public, non-motorised users and roadworkers to ensure that no person is injured either working within or travelling through the site on the strategic road network;
- Clarity of temporary traffic management schemes to ensure that the OTM Plan is built around the road users and stakeholders;
- Minimising delays to road users on both trunk and local roads;
- Meeting the needs of the Local Highway Authorities and their maintainers;
- Meeting the needs of key local stakeholders, including Tameside MBC and the Area 10 and 12 maintainer;
- Maintaining adequate access for the emergency services including Police, Fire and Rescue and the Ambulance Service;
- Maintaining adequate access to all affected properties during the construction works and ensuring access to local amenities for all users (including non-motorised users).

The TAR additionally identifies measures which will be taken to deal with anticipated transport impacts of the scheme and to improve accessibility and safety for all modes of travel.

14.2 Summary of impacts

The TAR summarises that a safety assessment was carried out using the Department for Transport's (DfT's) COBALT software, in order to assess the

impact of the proposed scheme on road traffic accidents. It calculates the estimated number of accidents for each road link over a 60-year appraisal period, based on the product of:

- Accident rate per million vehicle kilometres;
- Road length; and
- Forecast annual traffic flow.

The results of the assessment demonstrate that the most significant negative impacts will be on the A57 Snake Pass and the A628. As these are both long distance routes, they will see an increase in traffic flow, resulting in a forecast growth in accident numbers. A more detailed analysis of impacts across the network shows that the A57 Snake Pass, which is known to have a high accident rate, is forecast to experience a modelled predicted increase of more than 160 accidents over the 60-year appraisal period.

In the local area, the scheme is seeking to address longstanding issues of connectivity and congestion, which will reduce safety risks. As mentioned in the previous section, the OTM Plan states that during construction, traffic management and capacity restrictions will aim not to cause vehicle delays or queues along the A57 and M67 which extend beyond those currently experienced.

Despite reduced safety risks within the local built-up area showing a **positive** impact in terms of road safety, collision rates on the Trans Pennine routes (which are not located wholly within Tameside) demonstrate a **negative** impact resulting from the operation of the proposal in terms of road safety. However, as traffic flow is anticipated to increase, it is logical that the number of incidents could also increase.

14.3 Mitigation and enhancement

The OTM Plan states that roads have been designed so that they are adequately safe at the permanent speed limit. For this proposal, the current speed limits are 70mph on the M67, 40mph on the M67 J4 roundabout and the northern section of Roe Cross Road; all other roads are currently 30mph. New local restrictions may come into place before the proposal commences, which sees speed limits on local roads dropped to 20mph in line with Government guidance.

Additionally, the OTM Plan will minimise any adverse effects from construction traffic.

15 Summary

15.1 Cumulative effects

The ES states that the majority of single project cumulative effects are related to noise and vibration as well as visual receptors affecting a number of residential properties and/or streets. However, no additional mitigation measures beyond those already identified within the relevant ES topic chapters (Chapters 7 and 11), or the EMP and REAC, are considered to be necessary as implementing mitigation for each individual effect would also serve to reduce the identified single project cumulative effects.

15.2 Summary of impacts

The following sets out identified key considerations in relation to this application:

- Development decisions should be informed by national policy and the development plan, and therefore the policies set out in Section 3 of this report are of significance;
- The need for this particular scheme in this location should be a key consideration;
- Whether the need for the development outweighs any adverse impacts.

Table 11 sets out what Tameside MBC have identified as the local impacts likely to result from the proposal; however, the following are the key negative impacts:

- Nosie and Vibration
- Dust Emissions
- Designated Assets
- Road Safety

The following outlines the key long-term positive impacts from the scheme:

- Economic Growth and Transportation
- Human Health

In terms of economic growth and transportation, the scheme aims to maximise connectivity across the region, with a focus on public transport, walking, and cycling, to provide greater opportunities to high value and high skilled employment. The proposal is also anticipated to improve air quality in Mottram-in-Longdendale through reduced congestion and removal of traffic from residential areas, leading to a positive effect on human health.

15.3 Obligations to be included

This report has set out a series of mitigation actions taken from the ES and would seek that appropriate mechanisms are embedded through the consent process to ensure that negative impacts are mitigated as far as possible and that neutral impacts are where possible fully considered to more positively address the relevant topics.

These are detailed in each section of this report and include the following:

- Maximising the opportunities for local employment, training and apprenticeships through the construction contract;
- Ensuring that Social Value is fully embedded in procurement;
- Ensuring that the requirements of all non-motorised modes of transport are reflected in detailed design both along the new routes and along those roads to be de-trunked; and
- Ensuring that contractors are required to meet stretched recycling targets and sustainable construction practices; and
- Better linking the management of water with the potential for habitat creation, ecological improvements and overall biodiversity net gain.

Table 11: Summary of Impacts

LIR Chapter	Construction /Operation Phase	Assessment of Impact
Economic Growth and Transportation	Primarily Operation	Positive
Noise and Vibration:		
Noise	Construction	Negative
	Operation	Positive in locations where traffic will be diverted but Negative in residential locations close to the scheme
Vibration	Construction	Negative
	Operation	N/A
Geology, Soil and Ground Conditions	Primarily Construction	Neutral
Material Assets and Waste:		

Material Assets	Primarily Construction	Neutral
Waste	Primarily Construction	Neutral
Air Quality:		
Dust Emissions	Primarily Construction	Negative
Construction Traffic	Primarily Construction	Neutral
Human Health	Primarily Operation	Positive
Designated Habitats	Primarily Operation	Neutral
Landscape and Visual Impacts:		
Landscape	Construction	Negative
	Operation	Negative
Visual	Construction	Negative
	Operation	Negative
Archaeology and Cultural Heritage:		
Designated Assets	Construction	Negative
	Operation	Negative for Tara Brook Farm; Positive for Conservation Area
Non-designated Assets	Construction	Neutral
	Operation	Neutral
Ecological and Nature Conservation	Primarily Construction	Neutral
Road Drainage and Water Quality	Construction	Primarily Neutral; Negative for change in flood plain
	Operation	Neutral
Construction Traffic	Primarily Construction	Negative, with potential to become Neutral through mitigation

Road Safety	Primarily Operation	Positive within the local built-up area; Negative across Trans Pennine routes