

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix HA-001-0MA06

Health

MA06: Hulseheath to Manchester Airport
Health assessment matrix

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Department
for Transport

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

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1 Introduction

- 1.1.1 This report presents assessment matrices that have been used to identify the health effects relating to the Hulseheath to Manchester Airport area (MA06).
- 1.1.2 This appendix should be read in conjunction with:
- Volume 2, Community Area reports;
 - Volume 3, Route-wide effects; and
 - Volume 5, Appendices.
- 1.1.3 The matrices in this appendix list the impacts on health determinants identified along the route of the Proposed Scheme and apply assessment criteria as set out in the Environmental Impact Assessment (EIA) Scope and Methodology Report (SMR) (see Volume 5: Appendix CT-001-00001) to evaluate the likely health effects arising from these impacts. The assessment matrices for the construction and operational phases of the Proposed Scheme are set out in Table 1 and Table 2 respectively.
- 1.1.4 Impacts that are categorised as having low intensity and a low extent of exposure are not considered to affect the health of the population. For such impacts, no health effects are reported. The last column of the tables indicates whether or not a health effect is reported, and in which volume of the Environmental Statement (ES) is discussed.
- 1.1.5 Commentary on the scientific evidence base used in the health assessment is presented in Volume 5, Appendix HA-002-00000.

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Table 1: Hulseheath to Manchester Airport (MA06) – Construction health assessment matrix

MA06 Hulseheath to Manchester Airport – Health effects during construction											
Communities	Impact description	Impact pathway	Temporary / permanent	Beneficial / adverse	Health determinant	Intensity of impact (low / moderate / high)	Extent of exposure (low / moderate / high)	Vulnerable groups	Health effects at population level	Mitigation	Reporting
Hulseheath, Booth Bank, Rostherne and surrounds	Chapel Lane in Bucklow Hill is a designated construction traffic route. An increase in heavy goods vehicle (HGV) traffic along Chapel Lane between Hulseheath Lane and the A5034 Chester Road. Noticeable change in noise environment at residential properties along Chapel Lane due to road traffic.	Increase in HGV traffic along the road and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Temporary (during peak months of construction)	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Hulseheath, Booth Bank, Rostherne and surrounds	Presence of construction workforce on worksites and at satellite compounds (Chapel Lane satellite compound, Agden Brook viaduct satellite compound, A556 Chester Road satellite compound and transfer node, Rostherne cutting satellite compound, Blackburn's Brook viaduct satellite compound, Birkin Brook viaduct satellite compound and Ashley infrastructure	Presence of workers in local communities including in local shops, restaurants and other facilities, leading to changes in levels of community cohesion and trust.	Temporary (up to six years)	Adverse	Social capital	Low	Moderate	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	Incorporated mitigation as reported in the ES.	Volume 2

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	maintenance base – rail (IMBR satellite compound).										
Ashley, Thorns Green, Halebank and surrounds	Construction of Ringway cutting and use of construction traffic routes. Views of construction from Sunbank Lane, Halebank, Ringway. Noticeable change in noise environment at residential properties and along Public Rights of Way (PRoW) during construction.	Visual intrusion and changes to the noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment.	Temporary (up to two years and three months)	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Ashley, Thorns Green, Halebank and surrounds	The construction of the Thorns Green cutting will result in the demolition of Higher Thorns Green Farm. Fairfield Care Ltd run the Fairfield Farm Project at the farm using a working farm setting to support development for children.	Demolition of community facility potentially reducing the beneficial health effects gained through service provision and social contact.	Permanent	Adverse	Access to services, health and social care	Moderate	Moderate	Children with existing physical or mental illness, disabilities or learning difficulties.	Effects on quality of life by limiting opportunities for community facility users.	Incorporated mitigation as reported in the ES.	Volume 2
Ashley, Thorns Green, Halebank and surrounds	Presence of construction workforce on worksites and at satellite compounds (Birkenheath Covert satellite compound, Mobberley Road north satellite	Presence of workers in local communities including in local shops, restaurants and other facilities, leading to changes in levels of community	Temporary (up to eight years)	Adverse	Social capital	Low	Moderate	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	Incorporated mitigation as reported in the ES.	Volume 2

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	compound, Mobberley Road south satellite compound, Castle Mill Lane satellite compound, River Bollin east viaduct satellite compound and Sunbank Lane satellite compound and transfer node).	cohesion and trust.									
Ashley, Thorns Green, Halebank and surrounds	Demolition of five properties in Thorns Green due to the construction of the Thorns Green cutting.	Demolition of residential properties potentially reducing the beneficial health effects gained through social contact.	Permanent	Adverse	Social capital	Moderate	Low	None identified	Adverse effects on the erosion of social networks resulting from demolitions.	None identified	Volume 2
Ashley, Thorns Green, Halebank and surrounds	Demolition of five properties at Sunbank Lane, Halebank, Ringway, due to the construction of the Halebank cutting.	Demolition of residential properties and relocation of residents, resulting in the erosion of social networks.	Permanent	Adverse	Social capital	Moderate	Low	None identified	Reduction in the beneficial health effects gained through social contact.	None identified	Volume 2
Warburton Green, Hale Barns and Davenport Green	Construction of M56 East satellite compound and transfer node and Manchester Airport High Speed station cutting and haul route. Views of construction from the east side of Warburton Green. Noticeable change in noise environment at residential properties and	Visual intrusion and changes to the noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment.	Temporary (up to up to four years and five months)	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2

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	along PRoW during construction.										
Warburton Green, Hale Barns and Davenport Green	Construction of M56 East satellite compound and transfer node and Manchester Airport High Speed station cutting and haul route. Views of construction from the east side of Hale Barns. Noticeable change in noise environment at residential properties and along PRoW during construction.	Visual intrusion and changes to the noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment.	Temporary (up to four years and two months)	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Warburton Green, Hale Barns and Davenport Green	Presence of construction workforce on worksites and at satellite compounds (M56 east satellite compound, Manchester Airport station south satellite compound, Manchester Airport station main compound, Manchester Airport station north satellite compound and Manchester tunnel south portal main compound and transfer node).	Presence of workers in local communities including in local shops, restaurants and other facilities, leading to changes in levels of community cohesion and trust.	Temporary (up to nine years)	Adverse	Social capital	Low	Moderate	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	Incorporated mitigation as reported in the ES.	Volume 2
All areas	Construction of the Proposed	Changes in the amenity value of PRoW, increased	Temporary and permanent	Adverse	Access to green space, recreation	Low	Low	People on low incomes	No health effects at population level.	Incorporated mitigation as reported in the ES.	Commentary in Volume 2

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	Scheme intersecting PRoW.	distance due to diversions, and introduction of features such as footbridges and underpasses, deterring the use of PRoW for active travel and recreation.			and physical activity						
All areas	Presence of construction traffic, including HGVs, on local roads.	Amenity impacts and safety concerns, deterring the use of local roads by non-motorised users.	Temporary	Adverse	Access to green space, recreation and physical activity	Low	Low	None identified	No health effects at population level.	Incorporated mitigation as reported in the ES.	Commentary in Volume 2
Route-wide	Demolition of a total 24 residential properties.	Residents required to relocate involuntarily, leading to disruption and uncertainty. Changes in connectivity to social networks, schools, employment, services and facilities.	Permanent	Adverse	Housing	Low to high (depends on individual circumstances)	High (route-wide)	Older people, young families, children, people with specific housing needs, people with mental health conditions.	Effects on mental wellbeing including reduced life satisfaction and increased stress.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Presence of construction activities close to residential properties at Ashley, Thorns Green, Halebank, Warburton Green, Hale Barns and Davenport Green.	Concern and uncertainty about impacts of construction on local environment and property values.	Temporary (throughout planning and construction)	Adverse	Planning blight and uncertainty	Low to high	High (route-wide)	None identified	Effects on mental wellbeing including reduced life satisfaction and increased stress.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Direct effects on businesses affecting business activities and employment.	Loss of employment and earnings for some business owners and employees.	Permanent	Adverse	Employment and income	Moderate to high	Moderate (route-wide)	People on low incomes, people with disabilities.	Effects on mental and physical wellbeing associated with loss of employment and earnings.	Incorporated mitigation as reported in the ES.	Volume 3

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Route-wide	Presence of the construction works providing employment opportunities and demand for local goods and services.	Direct construction employment and training, employment within the supply chain, and benefits to local businesses through increased expenditure.	Temporary (throughout construction)	Beneficial	Employment and income	Moderate to high	High (route-wide)	Unemployed people and people on low incomes.	Beneficial effects on wellbeing associated with improved skills, employment status and income.	None identified	Volume 3
Route-wide	Increase in traffic flows and proportion of HGVs on local road network.	Increased risk of road traffic accidents and fear of accidents.	Temporary	Adverse	Transport	Low to high	Moderate (route-wide)	Older people, children, people with disabilities.	Adverse effects on mental and physical wellbeing including stress and behavioural changes such as reductions in walking.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Presence of construction sites, vehicles and plant resulting in increased air emissions.	Increase in exposure of the population to dust, nitrogen oxides and particulates.	Temporary	Adverse	Air quality	Low	Low	Children, older people, people with existing respiratory health conditions.	No health effects at population level.	Incorporated mitigation as reported in the ES.	Not reported

Table 2: Hulseheath to Manchester Airport (MA06) – Operational health assessment matrix

MA06 Hulseheath to Manchester Airport – Health effects during operation											
Communities	Impact description	Impact pathway	Temporary / permanent	Beneficial / adverse	Health determinant	Intensity of impact (low / moderate / high)	Extent of exposure (low / moderate / high)	Vulnerable groups	Health effects at population level	Mitigation	Reporting
Route-wide	Operation of high speed trains close to the population at Ashley, Thorns Green, Halebank, Warburton Green, Hale Barns and Davenport Green.	Increased exposure to noise from operational trains.	Permanent	Adverse	Airborne noise	Low to high (route-wide)	High (route-wide)	Children, older people, people with existing health conditions.	Adverse effects on mental and physical wellbeing including annoyance, sleep disturbance and physiological effects.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Presence of operational station providing employment opportunities.	Direct operational employment and training.	Permanent	Beneficial	Employment and income	Moderate to high	Moderate (route-wide)	Unemployed people and people on low incomes.	Beneficial effects on wellbeing associated with improved skills, employment status and income.	None identified	Volume 3

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Route-wide	Presence of operational HS2 Station at Manchester Airport resulting in improved connectivity, business agglomeration and inward investment.	Increase in the availability and choice of employment, and increased wages.	Permanent	Beneficial	Employment and income	Low to high	High (route-wide)	Unemployed people and people on low incomes.	Beneficial effects on wellbeing associated with improved employment status and income.	None identified	Volume 3