

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix HA-001-0MA03

Health

MA03: Pickmere to Agden and Hulseheath
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 Pickmere to Agden and Hulseheath area (MA03).
- 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: Pickmere to Agden and Hulseheath (MA03) – Construction health assessment matrix

MA03 Pickmere to Agden and Hulseheath – 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
Pickmere and surrounds	Presence of construction workforce on worksites and at satellite compounds (Smoker Brook viaduct north satellite compound; Wrenshot Lane satellite compound, Pickmere Lane satellite compound; Peacock Lane auto-transformer feeder station satellite compound, Arley Brook viaduct satellite compound, Peacock Lane satellite compound, Budworth Road satellite compound; Agden Lane satellite compound, and M6 viaduct south satellite compound).	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 and three months)	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
Pickmere and surrounds	Construction of the Budworth Road satellite compound and the Heyrose embankment. Views of construction from properties in the vicinity of Budworth Road, Tabley.	Visual intrusion and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Temporary (up to eight 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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	Noticeable change in noise environment at residential properties along Budworth Road, Tabley.										
Pickmere and surrounds	The B5569 Chester Road is a designated construction traffic route. Increase in heavy goods vehicle (HGV) traffic along the B5569 Chester Road in Mere (between Bucklow Hill Lane and Mereside Road). Noticeable change in noise environment from the increase in construction traffic at residential properties along the B5569 Chester Road.	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
Hoo Green, High Legh, Hulseheath, Agden and surrounds	Construction of Hulseheath North embankment, Hulseheath South embankment the Peacock Lane viaduct and the realignment of Peacock Lane. Chapel Lane is a designated construction traffic route. Views of construction from properties at Hulseheath. Noticeable change in noise environment at	Visual intrusion and changes to the noise environment, and an increase in HGV traffic, leading to reduced levels of satisfaction with the local environment.	Temporary (up to three years)	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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	residential properties and along Public Rights of Way (PRoW) during construction. An increase in HGV traffic between Hulseheath Lane and Peacock Lane.										
Hoo Green, High Legh, Hulsehealth, Agden and surrounds	Presence of construction workforce on worksites and at satellite compounds (M6 viaduct north satellite compound; M56 West satellite compound, A50 main compound; Agden Brow satellite compound, Bowden View satellite compound, and A56 Lymm Road satellite compound.) Temporary accommodation for 155 workers at A50 Warrington Road main compound.	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 and three months)	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 Scheme intersecting PRoW.	Changes in the amenity value of PRoW, increased distance due to diversions, and introduction of features such as footbridges and underpasses, deterring the use of PRoW for active	Temporary and permanent	Adverse	Access to green space, recreation and physical activity	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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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
		travel and recreation.									
All areas	Presence of construction traffic, including HGV, 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 11 residential properties in Tabley, Hoo Green and Broomedge.	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 Pickmere, Hoo Green, High Legh, Hulseheath, Millington and Agden.	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
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

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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	Increase in traffic flows and proportion of HGV 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: Pickmere to Agden and Hulseheath (MA03) – Operational health assessment matrix

MA03 Pickmere to Agden and Hulseheath – 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
Pickmere and surrounds	Presence of operational trains on Heyrose embankment. Trains and/or rail infrastructure visible from street level in Over Tabley. Intermittent train noise will also be noticeable.	Visual intrusion and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Permanent operational impact	Adverse	Neighbourhood quality	Moderate	Low	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
Pickmere and surrounds	Presence of operational trains on Heyrose embankment. Trains and/or rail infrastructure visible from street level in Tabley. Intermittent train noise will also be noticeable.	Visual intrusion and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Permanent operational impact	Adverse	Neighbourhood quality	Moderate	Low	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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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
Hoo Green, High Legh, Hulseheath, Agden and surrounds	Presence of operational trains on Hoo Green South embankment No.2 Trains and/or rail infrastructure visible from street level in Winterbottom. Intermittent train noise will also be noticeable.	Visual intrusion and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Permanent operational impact	Adverse	Neighbourhood quality	Moderate	Low	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
Hoo Green, High Legh, Hulseheath, Agden and surrounds	Presence of operational trains on Hulseheath South embankment and Hulseheath North embankment. Trains and/or rail infrastructure visible from street level in Hulseheath. Intermittent train noise will also be noticeable.	Visual intrusion and changes to the noise environment leading to reduced levels of satisfaction with the local environment.	Permanent operational impact	Adverse	Neighbourhood quality	Moderate	Low	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
Route-wide	Operation of high-speed trains close to the population at Pickmere, Hoo Green, Hulseheath and Agden.	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