

# High Speed Rail (Crewe – Manchester) Environmental Statement

## Volume 5: Appendix HA-001-0MA01

### Health

MA01: Hough to Walley's Green  
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.

High Speed Two (HS2) Limited  
Two Snowhill  
Snow Hill Queensway  
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)

Website: [www.hs2.org.uk](http://www.hs2.org.uk)

A report prepared for High Speed Two (HS2) Limited:

**ARUP+** ERM | FOSTER + PARTNERS | JACOBS  
RAMBOLL | TYPESA | COSTAIN

**MWJV**

Mott MacDonald | WSP

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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 Hough to Walley's Green area (MA01).
- 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: Hough to Walley's Green (MA01) – Construction health assessment matrix**

MA01 Hough to Walley's Green – 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
Hough and surrounds	Presence of construction workforce on worksites and at satellite compounds (Crewe Tunnel south portal 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 three 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
Crewe	Construction of the Crewe Tunnel north portal, the Crewe Tunnel cutting, the presence of the Crewe Tunnel north main compound, Coppenhall Moss retaining wall and the Coppenhall Moss cutting. Views of construction for some residential properties in north Crewe, Coppenhall and Leighton. Noticeable change in noise environment for residential properties and Public Rights of Way (PRoW) during construction. An increase in heavy goods vehicle (HGV) traffic along Broughton Road. Significant air quality effects for some residential	Visual intrusion and changes to the noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment. Increase in HGV traffic along the road and changes to the noise environment as a result of road traffic leading to reduced levels of satisfaction with the local environment.	Temporary (up to five years and six 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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	properties along Broughton Road.										
Crewe	Construction traffic routes along Sydney Road, North Street, and Bradfield Road. An increase in HGV traffic along sections of these construction traffic routes, resulting in traffic related severance effects. Noticeable change in noise environment from the increase in traffic at residential properties along Sydney Road. Significant air quality effects along North Street and Bradfield 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
Crewe	Temporary and permanent requirement for existing informal open space between the West Coast Main Line and Middlewich Street. The whole recreational area will be unavailable for use during the construction period and approximately a third will be permanently unavailable as it will be the site of	Reduction in the area of open space may discourage people from participating in recreational activity.	Temporary (four years and six months); Permanent	Adverse	Access to green space, recreation and physical activity	Low	Low	Children (under 10 years) and Adolescents (10 – 19 years)	Reductions in wellbeing benefits associated with physical activity.	None identified	Not reported

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	the ventilation and intervention shaft.										
Crewe	Winton Equestrian Centre is located within land required for the construction of the Crewe north portal cutting and will be demolished and the land permanently required for the Proposed Scheme.	Demolition of recreational infrastructure may discourage people from participating in recreational activity.	Permanent	Adverse	Access to green space, recreation and physical activity	Moderate	Low	None identified	Reductions in wellbeing benefits associated with physical activity.	None identified	Volume 2
Crewe	Construction of the Coppenhall Moss cutting, Coppenhall Moss South embankment and Footpath Crewe 29/1 Overbridge will result in significant noise effects on the Oakfield Lodge School. Warmingham Road, the main road used to access the school will be a construction traffic route. There will be an increase in HGV traffic outside the school.	Changes to the noise environment as a result of construction works and changes to journey times due to traffic, leading to potential for changes in educational attainment.	Temporary (up to three years and seven months)	Adverse	Education	Moderate	Moderate	Children (under 10 years)	Effects on concentration, behaviour and cognitive impairment.	Incorporated mitigation as reported in the ES.	Volume 2
Crewe	Presence of construction workforce on worksites and at satellite compounds (Cowley Way ventilation and intervention shaft (Vent Shaft))	Presence of workers in local communities including in local shops, restaurants and other facilities, leading to changes in levels of community	Temporary (up to five years and eleven 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



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	satellite compound and Middlewich Street vent shaft satellite compound).	cohesion and trust.									
Walley's Green and surrounds	Construction traffic route along the A530 Middlewich Road in Bradfield Green. An increase in HGV traffic along a section of this construction traffic route, resulting in traffic related severance effects. Noticeable change in noise environment from the increase in traffic at residential properties along the A530 Middlewich 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.
Walley's Green and surrounds	Presence of construction workforce on worksites and at satellite compounds (Warmington Moss Satellite compound and Moss Lane satellite compound, Crewe Tunnel north main compound). Estimated 70 workers accommodated at Crewe Tunnel north 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 seven 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	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.	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 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.	Volume 2
Route-wide	Demolition of a total of two residential properties on Parkers Road, Crewe.	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 Hough, Chorlton and Crewe.	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	Construction works resulting in direct and indirect impacts on businesses in Crewe.	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	Direct construction employment and training, employment	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,	None identified	Volume 3

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	opportunities and demand for local goods and services.	within the supply chain, and benefits to local businesses through increased expenditure.							employment status and income.		
Route-wide	Increased traffic flows, temporary road/lane closures and diversions.	Delays and route uncertainty for drivers.	Temporary	Adverse	Transport	Low to moderate (route-wide)	Moderate (route-wide)	None identified	Adverse effects on wellbeing due to increased stress.	Incorporated mitigation as reported in the ES.	Volume 3
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: Hough to Walley's Green (MA01) – Operational health assessment matrix**

MA01 Hough to Walley's Green – 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
Crewe	Presence of operational scheme and trains passing through the Crewe Tunnel close to Bentley Manor Care Home, Crewe.	Visual intrusion and ground-borne noise impacts at the indoor and outdoor areas around the care home as a result of operational trains leading to reduced levels of satisfaction with the local environment.	Permanent operation impact	Adverse	Access to services, health and social care	Moderate	Moderate	Older people; Older people with existing physical or mental illness, disabilities or learning difficulties.	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.	Not reported

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Crewe	Presence of operational scheme and trains passing through the Crewe Tunnel close to Sherborne Court Neurological Centre, Crewe.	Ground-borne noise impacts at the indoor and outdoor areas around residential properties as a result of operational trains leading to reduced levels of satisfaction with the care environment.	Permanent operation impact	Adverse	Access to services, health and social care	Moderate	Moderate	Older people; Older people with existing physical or mental illness, disabilities or learning difficulties.	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 of Hough, Chorlton and Crewe.	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