

# High Speed Rail (Crewe – Manchester) Environmental Statement

## Volume 5: Appendix HA-001-0MA04

### Health

MA04: Broomedge to Glazebrook  
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 Broomedge to Glazebrook area (MA04).
- 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: Broomedge to Glazebrook (MA04) – Construction health assessment matrix**

MA04 Broomedge to Glazebrook – 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
Broomedge, Warburton, Partington and surrounds	Construction of Agden culvert and Heatley South embankment. Views of construction from Agden Lane, Warrington Lane and Spring Lane, Lymm. Noticeable change in noise environment at residential properties during construction.	Visual intrusion and changes to noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment.	Temporary (up to three years and 10 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
Broomedge, Warburton, Partington and surrounds	Construction of the River Bollin West viaduct and Heatley South embankment. Wet Gate Lane, Little Heatley is a designated construction traffic route. Views of construction from Little Heatley. Noticeable change in noise environment at residential properties during construction.	Visual intrusion and changes to noise environment as a result of construction works and traffic leading to reduced levels of satisfaction with the local environment.	Temporary (up to one year 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
Broomedge, Warburton, Partington and surrounds	Presence of construction workforce on worksites and at satellite compounds (Bridgewater Canal satellite compound, Wet Gate Lane satellite compound, River Bollin West viaduct	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

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MA04 Broomedge to Glazebrook – 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
	satellite compound, Warburton embankment satellite compound, A6144 Paddock Lane satellite compound and Manchester Ship Canal viaduct south satellite compound).										
Broomedge, Warburton, Partington and surrounds	The construction of the Heatley South embankment will require the demolition of four residential properties in Little Heatley. There are only nine residential properties in Little Heatley.	Demolition of residential properties and relocation of residents, resulting in the erosion of social capital.	Permanent	Adverse	Social capital	Moderate	Low	None identified	Reduction in the beneficial health effects gained through social contact.	None identified	Volume 2
Broomedge, Warburton, Partington and surrounds	Works to construct the Warburton cutting and the A6144 Paddock Lane realignment will require closure and realignment of A6144 Paddock Lane which provides a link between two parts of the settlement of Warburton.	Loss of social capital and increased social isolation resulting from journey delays and increased travel time.	Permanent	Adverse	Social capital	Moderate	Low	None identified	Reduction in the beneficial health effects gained through social contact.	None identified	Volume 2
Hollins Green, Cadishead, Glazebrook and surrounds	Construction of the Manchester Ship Canal viaduct. Manchester Road is a designated construction traffic route. Views of construction from Hollins Green.	Visual intrusion and changes to noise environment as a result of construction works and an increase in HGV traffic leading to reduced levels of satisfaction with	Temporary (up to 11 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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MA04 Broomedge to Glazebrook – 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
	Noticeable change in noise environment at residential properties during construction. An increase in heavy goods vehicle (HGV) traffic flows along Manchester Road between Dam Lane and Glazebrook Lane.	the local environment.									
Hollins Green, Cadishead, Glazebrook and surrounds	Presence of construction workforce on worksites and at satellite compounds (Manchester Ship Canal viaduct central satellite compound, Manchester Ship Canal viaduct north main compound, Glazebrook Railway south satellite compound and Glazebrook Railway north satellite compound). Average of 50 to 70 workers per day and temporary accommodation for 115 workers at Manchester Ship Canal viaduct 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 three years and six 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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MA04 Broomedge to Glazebrook – 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
All areas	Construction of the Proposed Scheme intersecting public rights of way (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 travel and recreation.	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
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 of four 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 Heatley, Mossbrow, Warburton, Partington, Hollins Green and Glazebrook.	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	Loss of employment and earnings for some	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	Incorporated mitigation as reported in the ES.	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
	activities and employment.	business owners and employees.							loss of employment and earnings.		
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 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: Broomedge to Glazebrook (MA04) – Operational health assessment matrix**

MA04 Broomedge to Glazebrook – 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
Broomedge, Warburton, Partington and surrounds	Presence of operational trains on the Lymm North embankment and Bridgewater Canal viaduct and Heatley South embankment. Trains and/or rail infrastructure visible from street level in Agden.	Visual intrusion and changes to noise environment as a result of operation of the Proposed Scheme leading to reduced levels of satisfaction with the local environment.	Permanent (15 years) operational impact	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on 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
	Intermittent train noise noticeable from Agden.										
Broomedge, Warburton, Partington and surrounds	Presence of operational trains on the Heatley South embankment and River Bollin West viaduct. Trains and/or rail infrastructure visible from street level in Little Heatley. Intermittent train noise noticeable from Little Heatley.	Visual intrusion and changes to noise environment as a result of operation of the Proposed Scheme leading to reduced levels of satisfaction with the local environment.	Permanent (15 years) operational impact	Adverse	Neighbourhood quality	Low	Moderate	None identified	Adverse effects on 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 Agden, Little Heatley, Partington, Cadishead, Hollins Green and Glazebrook.	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