



High Speed Rail (West Midlands - Crewe)

Environmental Statement

CA2: Colwich to Yarlet

Health assessment matrix (HE-001-002)



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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 document is an Appendix relating to the health impact assessment for the Colwich to Yarlet community area (CA2). It contains health assessment matrices which identify impacts on health determinants along the High Speed Rail (West Midlands - Crewe) proposed route, and apply assessment criteria as set out in the Scope and Methodology Report (SMR)¹ and its Addendum² to evaluate the health effects arising from these impacts.
- 1.1.2 The health assessment matrices for the construction and operational health assessments are set out in Tables 1 and 2 respectively. Impacts that are categorised as having low intensity and a low extent of exposure are not considered to affect the health of the population and are therefore not reported in the High Speed Rail (West Midlands - Crewe) Environmental Statement (ES)³. The low levels of impact on health determinants in these instances can be attributed in part to the incorporated mitigation, which is reported in Volume 2 of the ES⁴.
- 1.1.3 A route-wide commentary on the health evidence base is provided in Volume 5: Appendix HE-003-000.
- 1.1.4 In addition, health profile information for the Colwich to Yarlet area is set out in Background Information and Data (BID)⁵, (see BID-HE-002-002: Community area health profile).

¹ *Environmental Impact Assessment Scope and Methodology Report*, Volume 5: Appendix CT-001-001

² *Environmental Impact Assessment Scope and Methodology Report Addendum*, Volume 5: Appendix CT-001-002

³ HS2 Ltd (2017), *High Speed Rail (West Midlands - Crewe) Environmental Statement (ES)*, www.gov.uk/hs2

⁴ See ES Volume 2, Community area reports

⁵ HS2 Ltd (2017), *High Speed Two (HS2) Phase 2a (West Midlands - Crewe), Background Information and Data*, www.gov.uk/hs2

Table 1: CA2 Colwich to Yarlet – Construction health assessment matrix

CA2 Colwich to Yarlet – Health effects during construction											
Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Moreton and surrounds	<p>Construction of Moreton North embankment and Moreton Brook viaduct, Moreton cutting and widening and realignment of Bishton Lane.</p> <p>Views of construction works and haul route from PRoW and Bishton Lane. Loss of vegetation and widening of Bishton Lane will change the character of the area. Views of construction works from elevated positions such as Moreton Cottages. Moreton Brook viaduct and Moreton North embankment construction, including cranes, will change the skyline at ground level for short periods.</p> <p>Noticeable change in noise environment and reduced tranquillity at residential properties and along Bishton Lane and PRoW during construction.</p>	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Temporary construction impact	Adverse	Neighbourhood quality	Moderate to high	Low	Upper Moreton Farm and Mayfield Children's Home (and see below).	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Moreton and surrounds	Embankment construction and haul route adjacent to Mayfield Children's Home leading to noise and visual impacts.	Change in noise and visual environment in indoor and outdoor areas at Mayfield Children's Home. Reduction in the value / suitability of the home for vulnerable children.	Temporary construction impact	Adverse	Neighbourhood quality	High	Low	Children with autistic spectrum disorders (ASD).	Adverse effects on wellbeing of the children at the home.	HS2 Ltd will continue to liaise with Mayfield Children's Home to agree a mitigation strategy.	Volume 2
Moreton and surrounds	Moreton Brook viaduct construction, haul route, loss of land and vegetation clearance affecting outdoor areas at Upper Moreton Farm leading to noise and visual impacts.	Reduction in the value / suitability of outdoor areas for therapeutic activities leading to reduced opportunities for rehabilitation of vulnerable people.	Temporary construction impact	Adverse	Access to services / Access to green space and physical activity	Moderate	Moderate	People with mental health problems, multiple learning difficulties, autistic spectrum disorders and emotional difficulties.	Adverse effects on existing symptoms and recovery rates for users of the facility.	HS2 Ltd will continue to liaise with Upper Moreton Farm to agree a mitigation strategy.	Volume 2
Moreton and surrounds	Realignment, diversion or closure of rural public rights of way (PRoW). These include: Colwich Bridleway 23, 35 and 58; Colwich Footpaths 26, 36, 54 and 55.	Impacts on amenity value of PRoW, discouraging their use for physical activity and access to the countryside. (ES showed that there were fewer than 10 people a day recorded on most of the PRoW in the area. Alternative PRoW are available for recreational use).	Temporary and permanent construction impact	Adverse	Access to green space and physical activity	Low to moderate	Low	None identified.	Contributes to reduction in wellbeing benefits associated with access to green space and physical activity across CA as a whole.	Incorporated mitigation as reported in the ES.	Volume 2
Moreton and surrounds	Realignment of Colwich Bridleway 23 via accommodation green overbridge adding 235m to route.	Reduction in accessibility between residential properties in Moreton via PRoW, potentially reducing social capital by discouraging social interaction.	Permanent construction impact	Adverse	Social capital	Low	Low	Older people, people with reduced mobility.	No health effects at population level.	Incorporated mitigation as reported in the ES.	Not reported

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Moreton and surrounds	Presence of construction workforce, including civil and rail systems workers, on work sites and at one satellite compound (Moreton auto-transformer station satellite compound).	Workers presence will be apparent in the local community including in local shops, restaurants and other facilities in local areas such as Moreton, leading to changes in levels of community cohesion and trust. Beneficial impacts are discussed below.	Temporary (one year and three months)	Adverse	Social capital	Low to moderate	Low	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust	HS2 Ltd will engage with stakeholders and incorporate measures to integrate the workforce within a Community Engagement Framework to be prepared in accordance with the Code of Construction Practice (CoCP) ⁶ .	Volume 2
Great Haywood and surrounds	Construction of Great Haywood viaduct north of Great Haywood. Construction works and haul route visible from street level and gardens of 10 dwellings on Tolldish Lane. Oldfields Crescent on northern edge of Great Haywood – ground level views screened by vegetation but visible from first floor windows. Works highly visible from the A51 Lichfield Road and adjacent footpath approaching Great Haywood from the north, Hoo Mill Basin, community facilities at Great Haywood Marina, and recreational route along canal towpath. Presence of Heavy Goods Vehicles (HGVs) on the A51 Lichfield Road north and south of Great Haywood. Works and haul route visible from street level and gardens of six dwellings on Hoo Mill Lane. Construction noise will impact on outdoor amenity at Tolldish Lane, Great Haywood Marina and Hoo Mill Lane.	Change in visual amenity, landscape, sound environment, tranquillity and safety concerns about HGVs on local roads, leading to reduced levels of satisfaction with the local environment.	Temporary (approximately five years)	Adverse	Neighbourhood quality	Moderate	Moderate	Some groups may be more vulnerable, e.g. older people, people with impaired hearing, vision or mobility, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2

⁶ Draft Code of Construction Practice, Volume 5: Appendix CT-003-000

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Great Haywood and surrounds	<p>Construction of Great Haywood viaduct north of Great Haywood.</p> <p>Works highly visible from the A51 Lichfield Road and adjacent footpath approaching Great Haywood from the north, Hoo Mill Basin, community facilities at Great Haywood Marina, and recreational route along canal towpath.</p> <p>Realignment of rural PRoW: Colwich Bridleway 23, Colwich Footpath 36, and proximity of these routes to construction activities.</p>	Amenity impacts of construction activities on part of the canal tow path and other PRoW may deter their use for physical activity and as means of accessing to the countryside. (Surveys indicate 131 users per day on canal towpath - a valued local recreational route).	Temporary and permanent construction impacts	Adverse	Access to green space and physical activity	Low	Low to moderate	None identified	Reduction in wellbeing benefits associated with access to green space and physical activity.	Incorporated mitigation as reported in the ES.	Volume 2
Great Haywood and surrounds	<p>Construction of Great Haywood viaduct north of Great Haywood.</p> <p>Works will be visible from Great Haywood Marina and some outdoor areas around the farm shop and café. Parking at the Marina will be directly impacted temporarily. Construction noise will be higher in areas closest to the Proposed Scheme, including the Marina itself, but low at the farm shop and café.</p>	Amenity impacts may deter the use of local facilities at the Marina – farm shop and café.	Temporary construction impact	Adverse	Access to services	Low	Low	None identified	No health effects at population level.	Incorporated mitigation as reported in the ES.	Not reported
Great Haywood and surrounds	Presence of HGVs on the A51 Lichfield Road north and south of Great Haywood and along Mill Lane south of the Proposed Scheme towards Tixall.	HGVs on local roads potentially deterring pedestrians, cyclists and equestrians, leading to a reduction in recreational activity and active travel.	Temporary construction impact	Adverse	Physical activity	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with impaired hearing, vision or mobility, children.	Reduction in wellbeing benefits associated with physical activity.	Incorporated mitigation as reported in the ES.	Volume 2
Great Haywood and surrounds	<p>Presence of construction workforce, including civil and rail systems workers, on work sites and at one main compound (Trent South embankment main compound) and one satellite compound (Trent North embankment satellite compound).</p> <p>Average 250 workers at workforce accommodation site near Trent South embankment main compound.</p>	<p>Workers presence will be felt in the local community including in local shops, restaurants and other facilities in local areas such as Great Haywood, leading to changes in levels of community cohesion and trust.</p> <p>Beneficial impacts are discussed below.</p>	Temporary (four years and three months)	Adverse	Social capital	Low to moderate	Moderate	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	HS2 Ltd will engage with stakeholders and incorporate measures to integrate the workforce within a Community Engagement Framework to be prepared in accordance with the CoCP.	Volume 2

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Great Haywood and surrounds	<p>Presence of construction workforce, including civil and rail systems workers, on work sites and at one main compound (Trent South embankment main compound) and one satellite compound (Trent North embankment satellite compound).</p> <p>Average 250 workers at workforce accommodation site near Trent South embankment main compound.</p>	Increased demand for local services (e.g. impact on capacity at Hazeldene House GP surgery in Great Haywood from workers who may choose to register with a local GP).	Temporary (four years and three months)	Adverse	Access to services	Low	Low	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	No health effects at population level.	No mitigation required. Funding for services is allocated by local authorities on the basis of population size and would include temporary workforce in rental accommodation.	Not reported
Ingestre and surrounds	<p>Construction of the Trent North embankment visible from upper stories of properties in Little Ingestre and stock piles and cranes may affect the skyline at ground level for short periods. Works visible from local roads approaching Little Ingestre.</p> <p>Great Haywood viaduct construction visible from upper stories of 20 properties at Tixall Farm.</p> <p>HGVs on Hanyards Lane, Blackheath Lane and A518 Weston Road.</p> <p>Construction works highly visible from approximately five properties, a Bed and Breakfast (B&B) and a campsite at Park Farm, Stafford (near Staffordshire County Showground). Construction noise will impact on outdoor amenity.</p>	Change in visual amenity, landscape, sound environment, tranquillity and safety concerns about HGVs on local roads, leading to reduced levels of satisfaction with the local environment.	Temporary	Adverse	Neighbourhood quality	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with impaired hearing, vision or mobility, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Ingestre and surrounds	Realignment, diversion or closure of rural PRoW. These include: Tixall Footpath 0.1630 (b) and Tixall Bridleway 0.1628.	Impacts on amenity value of PRoW, discouraging their use for physical activity and access to the countryside. (ES showed that there were fewer than 10 people a day recorded on most of the PRoW in the area. Alternative PRoW are available for recreational use).	Temporary and permanent construction impact	Adverse	Access to green space and physical activity	Low to moderate	Low	None identified	Contributes to reduction in wellbeing benefits associated with access to green space and physical activity across CA as a whole.	Incorporated mitigation as reported in the ES	Volume 2
Ingestre and surrounds	HGVs on Hanyards Lane, Blackheath Lane and A518 Weston Road	HGVs on local roads causing deterrent to pedestrians, cyclists and equestrians, leading to a reduction in recreational activity and active travel.	Temporary construction impact	Adverse	Access to green space and physical activity	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with impaired hearing, vision or mobility, children.	Reduction in wellbeing benefits associated with physical activity.	Incorporated mitigation as reported in the ES.	Volume 2

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Ingestre and surrounds	Construction of Proposed Scheme across Ingestre Park Golf Course resulting in inability of the golf course to function in its current capacity.	Reduction in availability and choice of golf courses resulting in potential reduction in uptake of this sport locally.	Permanent construction impact	Adverse	Access to green space and physical activity	Low	Moderate	None identified	Reduction in the beneficial effects of access to green space and physical activity, and potential adverse effects on wellbeing.	Incorporated mitigation as reported in the ES.	Volume 2
Ingestre and surrounds	Construction of Proposed Scheme across Ingestre Park Golf Course resulting in inability of the golf course to function in its current capacity.	Potential loss of club house, leading to a reduction in opportunities for local clubs and social events.	Permanent construction impact	Adverse	Social capital	Moderate	Moderate	People on low incomes, older people	Reduction in the beneficial effects of access to social networks.	In the event of the loss of the club house, HS2 Ltd will engage with local stakeholders to agree mitigation.	Volume 2
Ingestre and surrounds	Presence of construction workforce, including civil and rail systems workers, on work sites and at one satellite compound (Brancote South cutting satellite compound).	Workers presence will be apparent in the local community including in local shops, restaurants and other facilities in local areas such as Ingestre, leading to changes in levels of community cohesion and trust. Beneficial impacts are discussed below.	Temporary (four years and three months)	Adverse	Social capital	Low to moderate	Moderate	None identified	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust	HS2 Ltd will engage with stakeholders and incorporate measures to integrate the workforce within a Community Engagement Framework to be prepared in accordance with the CoCP.	Volume 2
Hopton and surrounds	Construction of Hopton South and North cutting and haul route visible from gardens of properties south of Hopton Lane along southern edge of elevated area, and from upper windows south of Hopton Lane (comprising around 50% of the village). Works visible from seating area in centre of village and intermittent views from street level within the village. Works and haul road visible from properties and gardens on north-east side of Mount Edge. Construction noise impacts will affect the whole village of Hopton to the north of the alignment - properties, gardens and public areas will experience amenity impacts. Parts of Mount Edge will also be affected.	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Temporary construction impact	Adverse	Neighbourhood quality	High	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Hopton and surrounds	Demolition of nine residential properties within Hopton.	Reduction in the size of the local population leading to a reduction in social capital for the remaining community.	Permanent construction impact	Adverse	Social capital	Low	Low	Older people	No health effects at population level.	Incorporated mitigation as reported in the ES.	Not reported

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Hopton and surrounds	Closure of Hopton Lane and permanent diversion via the realigned Hopton Lane and B5066 Sandon Road.	Increased journey time by road between Hopton Village and the community at Mount Edge leading to community severance. (Pedestrian access maintained via Hopton and Coton new footpath overbridge – step free).	Permanent construction impact	Adverse	Social capital	Low	Low	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	Incorporated mitigation as reported in the ES	Not reported
Hopton and surrounds	Presence of construction workforce, including civil and rail systems workers, on work sites and at three satellite compounds (Hopton South cutting satellite compound, Sandon Road auto-transformer station satellite compound, and Hopton North cutting satellite compound).	Workers presence will be apparent in the local community. However workers are unlikely to enter Hopton due to a lack of local shops, restaurants and other facilities in the Village, leading to changes in levels of community cohesion and trust. Beneficial impacts are discussed below.	Temporary construction impact	Adverse	Social capital	Low	Low to moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children	No health effects at population level	HS2 Ltd will engage with stakeholders and incorporate measures to integrate the workforce within a Community Engagement Framework to be prepared in accordance with the CoCP.	Volume 2
Hopton and surrounds	Realignment, diversion or closure of rural PRoW. These include: Hopton and Coton Footpaths 6 and 24; and Hopton and Coton Bridleways 11, 12 and 16.	Impacts on amenity value of PRoW, discouraging their use for physical activity and access to the countryside. (ES showed that there were fewer than 10 people a day recorded on most of the PRoW in the area. Alternative PRoW are available for recreational use).	Temporary and permanent construction impact	Adverse	Access to green space and physical activity	Moderate	Low	None identified	Contributes to reduction in wellbeing benefits associated with access to green space and physical activity across CA as a whole.	Incorporated mitigation as reported in the ES.	Volume 2
Marston and Yarlet	Presence of construction activities close to dwellings along Marston Lane and Yarlet Lane and permanent realignment of Marston Lane. Works visible from streets and gardens in Marston, in particular rear of properties on the north side of Yarlet Lane. Character of Marston village will be affected, including setting of the church and pub. Marston Lane is part of a promoted PRoW, which will be affected by changes in character and views. Yarlet – along A34 Stone Road – works are well screened in this area. Presence of HGVs on Marston Lane – visual effects, construction traffic, noise impacts affecting properties in central Marston (approx. 10) plus properties along Marston Lane, and Marston Footpath 2, which follows Marston Lane.	Change in visual amenity, landscape, sound environment and tranquillity, leading to reduced levels of satisfaction with the local environment.	Temporary and permanent construction impacts	Adverse	Neighbourhood quality	Moderate	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Marston and Yarlet	0.4ha of outdoor land within the grounds of Yarlet School, including a small area of informal play space, will be required temporarily to allow safe access for school traffic. Construction activities will take place in close proximity to the school.	Minor change in visual amenity and sound environment in outdoor areas within the school grounds.	Temporary	Adverse	Education	Low	Low	Children	Based on noise and visual assessment findings there will be no adverse effects on children's education, health and wellbeing.	Incorporated mitigation as reported in the ES	Not reported
Marston and Yarlet	Presence of construction workforce, including civil and rail systems workers, on work sites and at four satellite compound (Marston South embankment satellite compound, Marston North embankment satellite compound, Yarlet South cutting satellite compound, and Yarlet express feeder auto-transformer station satellite compound).	Workers presence will be apparent in the local community including in local shops, restaurants and other facilities in local areas such as Marston, leading to changes in levels of community cohesion and trust. Beneficial impacts are discussed below.	Temporary (up to three years nine months)	Adverse	Social capital	Moderate	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing associated with negative feelings about community cohesion and trust.	HS2 Ltd will engage with stakeholders and incorporate measures to integrate the workforce within a Community Engagement Framework to be prepared in accordance with the CoCP.	Volume 2
Marston and Yarlet	Presence of HGVs, road realignment and embankment construction affecting Marston Footpath 2, along Marston Lane.	Impacts on amenity value of PRoW, discouraging its use for physical activity and access to the countryside.	Temporary and permanent construction impact	Adverse	Access to green space and physical activity	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with impaired hearing, vision or mobility, children	Contributes to reduction in wellbeing benefits associated with access to green space and physical activity across CA as a whole.	Incorporated mitigation as reported in the ES	Volume 2
Marston and Yarlet	HGVs on Marston Lane, south of Marston	HGVs on local roads causing deterrent to pedestrians, cyclists and equestrians, leading to a reduction in recreational activity and active travel.	Temporary construction impact	Adverse	Access to green space and physical activity	Moderate	Low	None identified	Reduction in the beneficial wellbeing effects associated with physical activity.	Incorporated mitigation as reported in the ES.	Volume 2
Marston and Yarlet	Realignment, diversion or closure of rural PRoW. These include: Marston Bridleway 8; and Marston Footpath 2.	Impacts on amenity value of PRoW, discouraging their use for physical activity and access to the countryside. (ES showed that there were fewer than 10 people a day recorded on most of the PRoW in the area. Alternative PRoW are available for recreational use).	Temporary and permanent construction impact	Adverse	Access to green space and physical activity	Low to moderate	Low	None identified	Reduction in the beneficial effects of access to green space and physical activity, and potential adverse effects on wellbeing.	Incorporated mitigation as reported in the ES.	Volume 2
Route-wide	Demolition of residential properties: Tithebarn Farm near Moreton; Avondale near Great Haywood; Upper Hanyards Farm near Ingestre; Chase View near Hopton; nine properties in Hopton and Middle Bank Farm near Marston.	Residents required to relocate involuntarily, leading to disruption and uncertainty. Potential changes in connectivity to social networks, schools, employment, services and facilities.	Permanent construction impact	Adverse	Housing	Low to high (depends on individual circumstances)	Moderate	Older people, young families / children, disabled people.	Adverse effects on wellbeing including increased stress.	Incorporated mitigation as reported in the ES.	Volume 3 ⁷

⁷ See ES Volume 3, Route-wide effects

CA2 Colwich to Yarlet – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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	Presence of construction activities close to dwellings at Moreton, Great Haywood, Tolldish Lane, northern edge of Great Haywood, Hopton, Marston and Yarlet.	Concerns about potential impacts in the planning stage, and actual impacts during the construction stage, leading to changes in desirability and value of local property market.	Pre-construction, temporary and permanent construction impacts	Adverse	Housing	Moderate	Moderate	Older people, young families	Financial concerns and practical problems associated with postponing selling / moving house, leading to adverse effects on wellbeing including increased stress.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Construction works resulting in direct and indirect impacts on businesses (Great Haywood Marina, Ingestre Park Golf Club, Staffordshire County Showground).	Potential impacts on employment and loss of earnings.	Temporary and permanent construction impacts	Adverse	Employment and income	Low to moderate	Low	People on low incomes, people with disabilities	Adverse effects on wellbeing associated with loss of earnings / job loss.	Incorporated mitigation as reported in the ES.	Volume 3
Route-wide	Presence of construction workforce.	Increased demand for local facilities including local shops, restaurants and other businesses in Great Haywood, Marston and Yarlet. Could help to support businesses and incomes.	Temporary (approximately five years)	Beneficial	Employment and income	Low to moderate	Low to moderate	None identified	Beneficial effects on wellbeing associated with increased income.	Incorporated mitigation and enhancement reported in the ES.	Volume 3
Route-wide	Increased traffic flows, temporary road or lane closures and associated diversions, temporary signals and speed restrictions on the local road network.	Delays at affected junctions, route uncertainty at diversions and fear of accidents associated with HGVs leading to increase in levels of traveller stress.	Temporary	Adverse	Transport	Low	Moderate to high	None identified	Adverse effects on wellbeing including increased stress.	Incorporated mitigation and enhancement reported in the ES.	Volume 3
Route-wide	Increase in traffic flows and proportion of HGVs on local road network	Increased risk of road traffic accidents associated with increased traffic flows. Risk is considered low as there are no locations where elevated baseline accident rates coincide with changes of greater than 30% in average daily traffic flows.	Temporary	Adverse	Transport	Low (risk)	Low	None identified	Adverse effects on wellbeing including increased stress relating to road safety.	Incorporated mitigation and enhancement reported in the ES.	Volume 3
Route-wide	Increased in air emissions from construction dust, vehicle and plant emissions.	Small increases in exposure to dust, NO _x , PM ₁₀ in areas close to construction sites and haulage routes.	Temporary	Adverse	Air quality	Low	Low	Children, older people, people with existing respiratory health problems.	No health effects at population level.	Incorporated mitigation as reported in the ES and draft CoCP.	Not reported

Table 2: CA2 Colwich to Yarlet – Operational health assessment matrix

CA2 Colwich to Yarlet – Health effects during operation											
Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Moreton and surrounds	Presence of operational trains on embankment. Views of rail infrastructure and trains from PRoW, the widened Bishton Lane and elevated positions such as Moreton Cottages. Intermittent train noise noticeable from Bishton Lane and PRoW, changing the sound environment and affecting tranquillity.	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Permanent construction / operational impact	Adverse	Neighbourhood quality	High	Low	Upper Moreton Farm and Mayfield Children's Home (see below).	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Moreton and surrounds	Presence of Moreton North embankment and operational trains adjacent to Mayfield Children's Home leading to noise and visual impacts.	Change in noise and visual environment in indoor and outdoor areas at Mayfield Children's Home. Reduction in the value / suitability of the home for vulnerable children.	Permanent construction impact / operational impact	Adverse	Neighbourhood quality	High	Low	Children with ASD	Adverse effects on wellbeing of the children at Mayfield Children's Home.	HS2 Ltd will continue to liaise with Mayfield Children's Home to agree a mitigation strategy.	Volume 2
Moreton and surrounds	Presence of Moreton Brook viaduct and operational trains adjacent to outdoor areas at Upper Moreton Farm leading to noise and visual impacts.	Reduction in the value / suitability of outdoor areas for therapeutic activities leading to reduced opportunities for rehabilitation of vulnerable people.	Permanent construction impact / operational impact	Adverse	Access to services	High	Low to moderate	People with mental health problems, multiple learning difficulties, ASD and emotional difficulties.	Adverse effects on existing symptoms and recovery rates for users of the facility.	HS2 Ltd will continue to liaise with Upper Moreton Farm to agree a mitigation strategy.	Volume 2
Great Haywood and surrounds	Presence of operational trains on Great Haywood viaduct, north of Great Haywood. Trains and embankment highly visible from the A51 Lichfield Road and Colwich Footpath 63 approaching Great Haywood from the north, Hoo Mill Lane, Hoo Mill Basin, community facilities at Great Haywood Marina, and recreational route along canal towpath.	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Permanent construction impact / operational impact	Adverse	Neighbourhood quality	Low	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Ingestre and surrounds	Embankment and trains visible from approx. five properties, a B&B and campsite at Park Farm, Stafford. Train noise will be noticeable at Park Farm, Stafford (approx. five properties) and Tixall Farm (approx. 20 properties).	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Permanent construction impact / operational impact	Adverse	Neighbourhood quality	Low to moderate	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2

CA2 Colwich to Yarlet – Health effects during operation

Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	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
Hopton and surrounds	<p>Hopton cutting and trains visible from elevated areas and properties along southern edge of village (approx. 80 properties or 50% of properties in the village), seating area, and intermittent views from Hopton Lane. Screened by planting in longer term during summer months. Mitigation planting will shorten views – which results in a change from current long views from elevated areas.</p> <p>Trains and cutting visible from north-east side of Mount Edge.</p> <p>Train noise will be noticeable across the village of Hopton to the north of the alignment – all properties, gardens and public areas will experience amenity impacts.</p>	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Permanent construction impact / operational impact	Adverse	Neighbourhood quality	High	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Marston and Yarlet	<p>Presence of the embankment and road realignment will alter the character of Marston Village.</p> <p>Properties on the north side of Yarlet Lane will lose long distance views due to presence of 4-5m planted landscape bund.</p> <p>In Yarlet – along A34 Stone Road – the Proposed Scheme is well screened.</p> <p>Train noise will impact on properties in centre of Marston (10 houses) plus properties along Yarlet Lane, with noise barriers in place. Around 20 properties in total. Promoted PRow following Marston Lane will be affected.</p>	Change in visual amenity, landscape, sound environment, and tranquillity leading to reduced levels of satisfaction with the local environment.	Permanent construction impact / operational impact	Adverse	Neighbourhood quality	High	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability, children.	Adverse effects on wellbeing such as increased stress and reduced satisfaction with quality of life.	Incorporated mitigation as reported in the ES.	Volume 2
Route-wide	Presence of operational scheme and passing trains close to dwellings at Moreton, Great Haywood, Toldish Lane, northern edge of Great Haywood, Hopton, Marston and Yarlet	Changes to noise and visual amenity, leading to changes in desirability and value of local property market.	Operational impact	Adverse	Housing	Low to moderate	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 3
Route-wide	Operational trains	Increased exposure to noise in the population close to the Proposed Scheme resulting from operational train movements.	Operational impact	Adverse	Sound, noise and vibration	Moderate	Moderate	Children, older people, disabled people	Increased annoyance, loss of sleep and physiological effects.	Incorporated mitigation as reported in the ES.	Volume 3

2 References

HS2 Ltd (2017), *High Speed Two (HS2) Phase 2a (West Midlands - Crewe), Background Information and Data*. Available online at: www.gov.uk/hs2.

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