



High Speed Rail (West Midlands - Crewe)

Environmental Statement

Volume 5: Technical appendices

CA3: Stone and Swynnerton

Health assessment matrix (HE-001-003)



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Department for Transport

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1 Introduction

- 1.1.1 This document is an Appendix relating to the health impact assessment for the Stone and Swynnerton community area (CA3). 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 Stone and Swynnerton area is set out in Background Information and Data (BID)⁵, (see BID-HE-002-003: 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: CA3 Stone and Swynnerton – Construction health assessment matrix

CA3 Stone and Swynnerton – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent construction / operational	Beneficial / adverse	Health determinant	Intensity of impact	Extent of exposure (low / moderate / high)	Vulnerable groups	Potential health effects at population level	Mitigation	Reporting
Yarnfield and surrounds	<p>Construction of Yarlet embankment visible from Pirehill Cottage Farm.</p> <p>Construction of Yarlet North cutting visible from properties at North Pirehill Farm, Walton House Farm and Walton Heath Farm.</p> <p>Construction of the Stone railhead visible from properties along Yarnfield Lane, properties at the north-eastern edge of Yarnfield, the Wellbeing Park and Stone Golf Club.</p> <p>Construction traffic, including HGVs, will be present on Pirehill Lane, affecting properties around North Pirehill Farm.</p>	Change in visual amenity, landscape, sound environment, tranquillity and safety concerns about construction traffic on Pirehill Lane, leading to reduced levels of satisfaction with the local environment.	Temporary construction impact	Adverse	Neighbourhood quality	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability and 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
Yarnfield and surrounds	Demolition of individual properties on the B5026 Eccleshall Road (Little Micklow Farm) and Yarnfield Lane (Pool House Farm and Brookhouse).	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
Yarnfield and surrounds	Presence of construction workforce, including civil and rail systems workers, on work sites and at five satellite compounds (Yarlet embankment satellite compound, Yarlet North cutting satellite compound, Stone connection satellite compound, Yarnfield North embankment satellite compound, and M6 Meaford viaduct satellite compound) and one main compound (Stone railhead main compound).	<p>Workers presence will be apparent in the local community including in local shops, restaurants and other facilities in local areas such as Yarnfield, leading to changes in levels of community cohesion and trust.</p> <p>Beneficial impacts are discussed below.</p>	Temporary construction impact	Adverse	Social capital	Low	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability and children.	Adverse effect on mental wellbeing.	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
Yarnfield and surrounds	Heavy goods vehicles (HGVs) on Pirehill Lane, the B5026 Eccleshall Road and Yarnfield Lane.	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, recreation 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
Yarnfield and surrounds	Realignment, diversion or closure of rural public rights of way (PRoW). These include: Stone Rural Footpaths 28, 32 and 33; and Stone Bridleway 0.1135.	<p>Impacts on amenity value of PROW discouraging its use for physical activity and access to the countryside.</p> <p>(The 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).</p>	Temporary and permanent construction impact	Adverse	Access to green space, recreation 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

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

CA3 Stone and Swynnerton – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent construction / operational	Beneficial / adverse	Health determinant	Intensity of impact	Extent of exposure (low / moderate / high)	Vulnerable groups	Potential health effects at population level	Mitigation	Reporting
Swynnerton and surrounds	<p>Construction of Meaford North embankment and Swynnerton South cutting visible from Blakelow Farm, Grange Cottages and Swynnerton Grange.</p> <p>Construction of Swynnerton embankment visible from properties along Tittensor Road and Sandyford Farm.</p> <p>Construction of Swynnerton North cutting visible from properties at and around Swynnerton Heath Farm.</p> <p>Construction traffic, including HGVs, will be present on Tittensor Road and the A51 Stone Road</p> <p>Construction of Hatton North cutting highly visible from properties along Bent Lane in Shelton under Harley. Construction traffic using Bent Lane will affect properties in Shelton under Harley.</p>	Change in visual amenity, landscape, sound environment, tranquillity and concerns about safety relating to HGVs on rural roads, leading to reduced levels of satisfaction with the local environment.	Temporary construction impact	Adverse	Neighbourhood quality	Moderate to high	Low	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability and 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
Swynnerton and surrounds	Presence of construction workforce, including civil and rail systems workers, on work sites and at four satellite compounds (Meaford North embankment satellite compound, Swynnerton embankment satellite compound, Hatton South cutting satellite compound, Hatton North cutting satellite compound), one systems compound (Stableford auto transformer station railway systems compound), and one main compound (Swynnerton North cutting main compound).	Workers presence will be apparent in the local community including in local shops, restaurants and other facilities in local areas such as Swynnerton leading to changes in levels of community cohesion and trust. Beneficial impacts are discussed below.	Temporary construction impact	Adverse	Social capital	Low	Moderate	None identified	Adverse effect on mental wellbeing.	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
Swynnerton and surrounds	Realignment, diversion or closure of rural PRoW. These include: Swynnerton Footpaths 10, 15, 17, 27 and 52; Swynnerton Bridleways 52 and 54; and Stone Byway Open to All Traffic (BOAT).	Impacts on amenity value of PRoW discouraging their use for physical activity and access to the countryside. (The 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 construction, permanent construction and permanent operational impacts	Adverse	Access to green space, recreation 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
Swynnerton and surrounds	HGVs on the A51 Stone Road, Bottom Lane, Tittensor Road and the A519 Newcastle 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, recreation 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
Route-wide	Demolition of individual properties on the B5026 Eccleshall Road (Little Micklow Farm) and Yarnfield Lane (Pool House Farm and Brookhouse).	Residents required to relocate leading to disruption, uncertainty and potential changes to social networks, schools, etc.	Permanent construction impact	Adverse	Housing	Low to high (depends on individual circumstances)	Moderate	Older people, Young families, 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

CA3 Stone and Swynnerton – Health effects during construction

Communities	Impact description	Impact pathway	Temporary / permanent construction / operational	Beneficial / adverse	Health determinant	Intensity of impact	Extent of exposure (low / moderate / high)	Vulnerable groups	Potential health effects at population level	Mitigation	Reporting
Route-wide	Presence of construction activities close to residential properties (Walton House Farm, Walton House Barn, Micklow House Farm, Whitemoor Farm, Blakelow, Sandyford Farm, Shelton under Harley Farm, Honeysuckle Cottage and Camelot Cottage).	Concerns about potential impacts during the development of the design of the Proposed Scheme, and actual impacts during the construction stage, leading to changes in desirability and value of local property market.	Temporary construction impact	Adverse	Housing	Moderate	Low	Older people, Young families, Disabled people	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	Presence of construction workforce.	Increased demand for local facilities including local shops, restaurants etc in Yarnfield, Stone and Swynnerton. Could help to support businesses and incomes.	Temporary (approximately 5 years 6 months)	Beneficial	Employment and income	Low to moderate	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, NOx and PM10 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: CA3 Stone and Swynnerton – Operational health assessment matrix

CA3 Stone and Swynnerton – Health effects during operation											
Communities	Impact description	Impact pathway	Temporary / permanent, construction / operational	Beneficial / adverse	Health determinant	Intensity of impact	Extent of exposure (low / moderate / high)	Vulnerable groups	Health effect at population level	Mitigation	Reporting
Yarnfield and surrounds	<p>Presence of the Yarlet embankment and accommodation overbridge road realignment will alter the character of the area for Walton House Farm, Walton Heath Farm and Micklow House Farm.</p> <p>Presence of the Stone Infrastructure Maintenance Base-Rail (IMB-R) will alter the character of the area and will have impacts on properties along Yarnfield Lane, properties at the north-eastern edge of Yarnfield, the Wellbeing Park and Stone Golf Club due to lighting.</p>	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	Moderate	Moderate	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability and 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
Swynnerton and surrounds	<p>Presence of the Meaford North embankment will alter the character of the area for Blakelow Farm, Swynnerton Grange and surrounding properties.</p> <p>Presence of the Swynnerton embankment and Swynnerton North cutting will alter the character of the area for Sandyford Farm, Long Compton Farm and Swynnerton Heath Farm.</p> <p>Presence of the Hatton North cutting, Stableford auto transformer station and Bent Lane (North) diversion will alter the character of the area in Shelton under Harley.</p>	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	Moderate	Low	Some groups may be more vulnerable, e.g. older people, people with existing illness or disability and 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 close to dwellings at Walton House Farm, Micklow House Farm, Whitemoor Farm, Blakelow Farm, Sandyford Farm, Whitehouse, Swynnerton Heath Farm and Shelton under Harley Farm.	Concerns about potential impacts in during the development of the design of the Proposed Scheme, and actual impacts during the construction stage, leading to changes in desirability and value of local property market.	Temporary construction impact / permanent construction impact / operational impact	Adverse	Housing	Low	Low	Older people	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

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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