

RAPID HEALTH IMPACT ASSESSMENT OF HS2 INITIAL PREFERRED ROUTE IN EASTERN DERBYSHIRE: EXECUTIVE SUMMARY

A synthesis of evidence from community profiling, review of the literature and community consultation, with recommendations to HS2 Ltd. for maximising health gains and mitigating negative health consequences in respect of the high-speed rail development proposal HS2 Phase 2 initial preferred route in Eastern Derbyshire

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Outline of the HS2 proposal

High Speed 2 (HS2) is a development proposal for a new rail system promoted through HS2 Ltd, a company owned by the Department for Transport. The proposal is about expanding passenger services capacity and redressing the North-South balance by reducing long-distance journey times. The latter would be achieved through the combination of an entirely new rail network and modern trains, together with a restricted number of stations. This would allow HS2 to travel faster than trains using the 'classic' rail network (at speeds of around 360 kph), although with less opportunity to get on or off. The HS2 proposal includes two staged development phases. HS2 Phase 1 would join London to Birmingham, whereas HS2 Phase 2 would have two arms: an eastern one (Birmingham to Leeds) and a western one (Birmingham to Manchester), meaning the new network would be roughly Y-shaped. HS2 is intended to supplement the legacy or 'classic' rail network rather than expand it, using a new route and new technologies. The details relating to precisely how HS2 will connect with classic rail services are not clear as of this writing. It should be noted that there are no HS2 stations within Derbyshire County as part of the proposal.

There are three broad stages to the proposed development. The first stage is the consent (planning) stage. On 17 July 2013 HS2 Ltd. launched a programme of information-giving events and a public consultation that closes in January 2014. The Secretary of State intends to confirm the preferred route by the end of 2014. An exceptional hardship scheme was proposed to deal with property sales blighted by the proposal at this stage. The second stage, construction, would commence in the mid-2020s and involve a works corridor about 60 metres wide. A compensation scheme will apply to properties subject to forced sale during this stage. The third, operational stage would see Phase 2 of the network come into service around 2032–33.

The proposed route through eastern Derbyshire for the most part follows the M1 corridor and passes through the districts/ boroughs of Erewash, North East Derbyshire (twice), Bolsover and Chesterfield. The route turns away from the northern part of Erewash and skirts the Amber Valley as it loops eastward into Nottinghamshire.

Health impact assessment method

A health impact is something that has a positive or negative effect on health or a determinant of health (population-level influences on health and well-being). A health impact assessment (HIA) is a 'combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population' (WHO 1999).

The aim of this HIA is to support a joint response to the HS2 Ltd. Phase 2 consultation on behalf of Derbyshire local authorities. Planning for this HIA was based around the Merseyside guidelines as an established methodology. Emphasis was placed on identifying inequalities, with explicit capture of mental health and well-being issues. A rapid type of HIA was indicated in view of tight timescales.

A steering group including experts and key stakeholder representatives agreed upon impact areas in scope, based upon the anticipated impacts of the proposal, with reference to recognised causes and determinants of ill health. These comprised mental health and well-being; physical health and injury; lifestyle and leisure; community; environment; housing; transport and access; nutrition; education; employment and economy.

Community profiling involved producing locality profiles for each area of impact in scope. We aimed to write brief narrative summaries that included comparison to English/ county norms, commenting on any existing inequities for these health indicators. Review of the literature involved conducting literature searches for each impact area in scope in respect of health impacts of high-speed rail development. We sought evidence on the effectiveness of any proposed interventions to enhance positive health benefits or mitigate negative health impacts and on any issues identified in relation to equity groups or socioeconomic disadvantage. Community consultation involved locality health improvement teams leading the collection of data using contacts with existing community groups. The steering group assessed potential positive and negative health impacts by triangulating local community profiles, the available research evidence base and the perspective of affected communities.

List of recommendations

We offer the following recommendations to HS2 Ltd. with a view to enhancing the positive impacts and mitigating the negative health impacts for eastern Derbyshire (tables refer to issues detailed in the full report):

ID	Enhancing positive mental health & well-being impacts
MHE1	Avoid overcrowding on HS2 trains, which could mitigate some commuting-related stress, but this should not be achieved via the mechanism of exclusive rail ticket or station parking costs
MHE2	Make a commitment to a local hire policy when recruiting the construction workforce in recognition of the well-being benefits

ID	Mitigating negative mental health & well-being impacts
MHM1	Provide detail on proposed strategies for mitigating potential mental health and well-being adverse impacts within Derbyshire as tabulated in 4.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
MHM2	Respond to concerns that the views of young people may not have been adequately canvassed, and to repeated indications that existing information provision is not meeting needs of many Derbyshire residents
MHM3	Commission access to expert counselling services for dealing with loss related to demolition, isolation or relocation-induced stress
MHM4	Recognise that noise is likely to have a subjective impact above and beyond model predictions, guideline standards or objective measurements; this recognition needs to be backed by accessible and responsive concern reporting mechanisms
MHM5	Reduce the duration of noise-related annoyance to local residents and businesses by imposing restrictions (with penalties for exceedance) upon the hours of operation of plant machinery and construction activity; consider including at least one noise-free day e.g. Sunday
MHM6	Outline a communications plan that makes provision for regularly informing local residents and business about progress or problems in a timely manner using technologies with subscription options (e.g. SMS, e-mail, social media) to supplement broadcast information and signage

ID	Enhancing positive physical health & injury impacts
PHE1	Work with and support health partnerships in Derbyshire to promote HS2 as an 'active travel' compatible solution, as increasing exercise will help prevent and mitigate obesity and diabetes (a significant health issue for eastern Derbyshire)
PHE2	Pay particular attention to design solutions that enhance the safety of all road users (including pedestrians and cyclists), taking the opportunity to reconfigure high-risk crossings/ junctions impacted by the proposed route—most especially in NED where the risk of RTAs is already high and in Long Eaton where station-related traffic flows are likely to increase injury rates

ID Mitigating negative physical health & injury impacts	
PHM1	Provide detail on proposed strategies for mitigating potential physical health and injury-related adverse impacts within Derbyshire as tabulated in 5.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
PHM2	Model the effects of changes to rail crossings traffic flows on the risk of death or injury to pedestrians, cyclists and car users and include mitigation of this within projects costs
PHM3	Work with local authorities, emergency services and the Highways Agency to develop a traffic management strategy aimed at minimising disruption to road users and limiting the risk of road traffic accidents or injuries to pedestrians as a result of construction-related traffic
PHM4	Pay particular attention to the impact of disrupted access upon those with physical disabilities, such as wheelchair users, to ensure any particular needs are catered for as part of planning for temporary diversions or permanent route/ footpath changes
PHM5	Publish details on proposed mitigation strategies for dust particles (at 10 microns in diameter or less) expected during construction, together with evidence on the effectiveness of such strategies in preventing (or preventing the exacerbation of) respiratory illness
PHM6	Consult with Derbyshire CCGs and NHS Trusts on ways to manage an expected temporary increase in patient numbers resulting from health-seeking behaviour and injuries among the construction workforce, and an increase in complaints from the general public related to sleep disturbance, anxiety, breathing problems, etc.
PHM7	Ensure provision of adequate safety training and supervision of construction workers, recognising that hiring low-skilled workers for the length of the construction period may provide more opportunities for skill acquisition and reduce the incidence of occupational injury in conflict with the job-related benefits of short-term local hires to construct local segments
PHM8	Ensure construction sites and all companies contracted to service them are registered with the Considerate Constructors Scheme, which will include monitoring against 'Securing everyone's safety' standards

ID Enhancing positive lifestyle & leisure impacts	
LLE1	Ensure that HS2 carriages and station access routes include adequate provision for cycles in support of a rail/ cycle alternative to car use (less polluting and encourages beneficial exercise)
LLE2	Examine innovative options for 'nudging' passengers to engage in physical activity e.g. siting pay-and-display car parking adjacent to the station, with a free parking option within longer walking distance linked by a greenery-enhanced foot and cycle path
LLE3	Consider designing in track-side walking/ cycling trails and integrating these at the time of track construction with links to greenways and rights of way that support DCC's access strategy

ID Mitigating negative lifestyle & leisure impacts	
LLM1	Provide detail on proposed strategies for mitigating lifestyle and leisure-related adverse impacts within Derbyshire as tabulated in 6.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
LLM2	Ensure construction sites and all companies contracted to service them are registered with the Considerate Constructors Scheme, which will include monitoring against 'Enhancing the appearance' standards

ID Enhancing positive community impacts	
COE1	Compensate communities for the loss of local amenities and support their relocation, replacing 'like-with-better' rather than 'like-for-like' via a process that involves the community in the decision-making
COE2	There may be opportunities to facilitate new greenway links between communities utilising the HS2 corridor to bridge connections that have yet to be formally established

ID Mitigating negative community impacts	
COM1	Provide detail on proposed strategies for mitigating potential community-related adverse impacts within Derbyshire as tabulated in 7.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
COM2	Reduce the severance of local communities using design solutions that facilitate access
COM3	Offer relocation and/or compensation to dwellings identified as at risk of community isolation
COM4	Reduce the risk of crime/ address potential fears around safety of public transport and safe active travel (possibly utilising CCTV and other solutions), particularly around Long Eaton/ the East Midland hub where these indicators may be adverse
COM5	Work with the Derbyshire Constabulary and community safety partnerships to look at issues such as increased policing during the construction phase and issues around the availability of alcohol, which may result in violence or other disorder exacerbating existing problems
COM6	Ensure construction sites and all companies contracted to service them are registered with the Considerate Constructors Scheme, which will include monitoring against 'Respecting the community' standards

ID Enhancing positive environmental impacts	
ENE1	Utilise mitigation solutions intended to minimise the impact of HS2 to improve upon the existing impacts of the M1 upon Hardwick, aiming to improve resident satisfaction with the local area
ENE2	Demonstrate how HS2 will enhance the Trent Valley Vision being developed and promoted by the Lowland Derbyshire and Nottinghamshire Local Nature Partnership

ID Mitigating negative environmental impacts	
ENM1	Provide detail on proposed strategies for mitigating potential environment-related adverse impacts within Derbyshire as tabulated in 8.4 (particularly for noise and particulates), with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
ENM2	Provide clarification of the estimated noise impact of the station at Toton and depot at Staveley, as distinct from noise due to proximity to the line itself
ENM3	Confirm whether properties (both residential and business) in proximity to construction sites or the operational track will be eligible for installation of compensatory noise insulation
ENM4	Reduce the visual and ecological severance of landscape using aesthetic design solutions
ENM5	Confirm whether the fuel type generating electrical power for HS2 has been factored into the environmental impact assessment and detail the sensitivity of estimates to passenger numbers; shift of passengers and freight from air or road to rail (allowing for efficiency gains in those alternatives); the length of tunnelling involved; and indirect emissions from stations and infrastructure, as well additional road traffic to/ from HS2 stations
ENM6	Ensure construction sites and all companies contracted to service them are registered with the Considerate Constructors Scheme, which will include monitoring against 'Protecting the environment' standards

ID Enhancing positive housing impacts	
HOE1	Work with local housing departments and developers to examine the feasibility of linking the provision of suitable accommodation for the construction workforce to longer-term affordable housing projects
HOE2	Provide relocated families with housing that is better than what they are losing (rather than like-for-like), recognising the relationship between housing quality and health and that this cannot fully compensate for community severance

ID Mitigating negative housing impacts	
HOM1	Provide detail on proposed strategies for mitigating potential housing-related adverse impacts within Derbyshire as tabulated in 9.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
HOM2	Work with local authority housing departments to upgrade social housing exposed to higher noise levels with appropriate noise insulation
HOM3	Ensure that residents who are not owner-occupiers (and therefore not covered by the compensation scheme) are also treated fairly, recognising the particular difficulties those in park homes may face in seeking alternative accommodation if relocation is required or desired

ID Enhancing positive transport impacts	
TAE1	HS2 carriages and fit-for-purpose station facilities should include adequate provision for cycles, in support of a rail/ cycle alternative to car use (less polluting and encourages exercise)
TAE2	Provision for sustainable travel to the hub needs to be built into planning so people can access jobs and other services at or via the hub
TAE3	Ensure that a Disability and Access Champion is involved at all key decisions points
TAE4	Make access to relocated community facilities more equitable

ID Mitigating negative transport impacts	
TAM1	Provide detail on proposed strategies for mitigating potential transport and access-related adverse impacts within Derbyshire as tabulated in 10.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
TAM2	Avoid utilising important local roads for construction traffic, which will worsen existing congestion and thereby exacerbate commuter stress
TAM3	Model current access and the potential effects of severance in Long Eaton related to the proposed closure of two level crossings, noting this is a particular local concern

ID Enhancing positive nutritional impacts	
NUE1	Commit to ensuring that healthy eating options are available to HS2 passengers both on-board trains and in stations

ID Mitigating negative nutritional impacts	
NUM1	Provide detail on proposed strategies for mitigating potential nutritional and farming-related adverse impacts within Derbyshire as tabulated in 11.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
NUM2	Prioritise design solutions that afford access where access to supermarkets may be inhibited, in recognition that obesity is a major health issue locally and that healthy food choice is part of the solution
NUM3	Reduce the severance of farmland using design solutions that facilitate access

ID Enhancing positive educational impacts	
EDE1	Work with local contractors, academic partners and other stakeholders where feasible to facilitate apprenticeships or similar schemes that maximise the value of the training opportunities for local people, ideally leading to recognised qualifications
EDE2	Work with awarding organisations at an early stage to develop and promote new qualifications aimed at up-skilling local people, who will be competitively placed to apply for employment in high-speed rail technology roles

ID Mitigating negative educational impacts	
EDM1	Provide detail on proposed strategies for mitigating education-related adverse impacts within Derbyshire as tabulated in 12.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
EDM2	Improve the accessibility of high-speed travel for students via ticket concessions
EDM3	Ensure that suppression of noise during construction and train operations is given additional consideration where educational premises are likely to be affected

ID Enhancing positive employment impacts	
EME1	In recognition of high overall unemployment locally, commit to employing a significant proportion of local workers during the construction and operational stages of the proposed development (balancing this with a potential increase in occupational injuries)
EME2	In recognition of high rates of local youth unemployment, commit to employing inexperienced workers during the construction and operational stages in combination with educational initiatives leading to qualifications that increase the prospect of long-term employment (balancing this with a potential increase in occupational injuries)
EME3	Work with business leaders along the route to consider schemes that subsidise the cost of using HS2 (possibly in combination with active travel) in preference to reimbursement of personal mileage supporting car journeys; this could increase HS2 passenger numbers by improving access and encourage less polluting travel with the benefits of some exercise

ID Mitigating negative employment impacts	
EMM1	Provide detail on proposed strategies for mitigating potential employment-related adverse impacts within Derbyshire as tabulated in 13.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
EMM2	Support persons losing their jobs as a result of compulsory relocation or demolition of business premises to find alternative employment, perhaps with preferential treatment in relation to jobs created as part of the HS2 scheme if they have suitable skills or wish to be re-trained
EMM3	Ensure construction sites and all companies contracted to service them are registered with the Considerate Constructors Scheme, which will include monitoring against 'Caring for the workforce' standards

ID Enhancing positive economic impacts	
ECE1	Work closely with planners in Long Eaton to ensure that preparation for the HS2 station in Toton is integrated with local planning policies

ID	Mitigating negative economic impacts
ECM1	Provide detail on proposed strategies for mitigating potential economy-related adverse impacts within Derbyshire as tabulated in 14.4, with reference to the evidence base for intervention effectiveness and proposals for monitoring and evaluation during the construction and operational stages as appropriate
ECM2	Businesses subject to land take or relocation should be financially assisted to locate new premises that are an improvement on the premises they are vacating and should be adequately compensated for the disruption caused to the conduct of their business