

## Headline Notes on the Draft Environmental Statement, LA03 section

**Note:** HS2's impact assessments are based upon worst case scenarios.

### From introductory sections:

HS2 are very clear that the DES is in no way a “final” document and there will be scope for improvement all the way along the process.

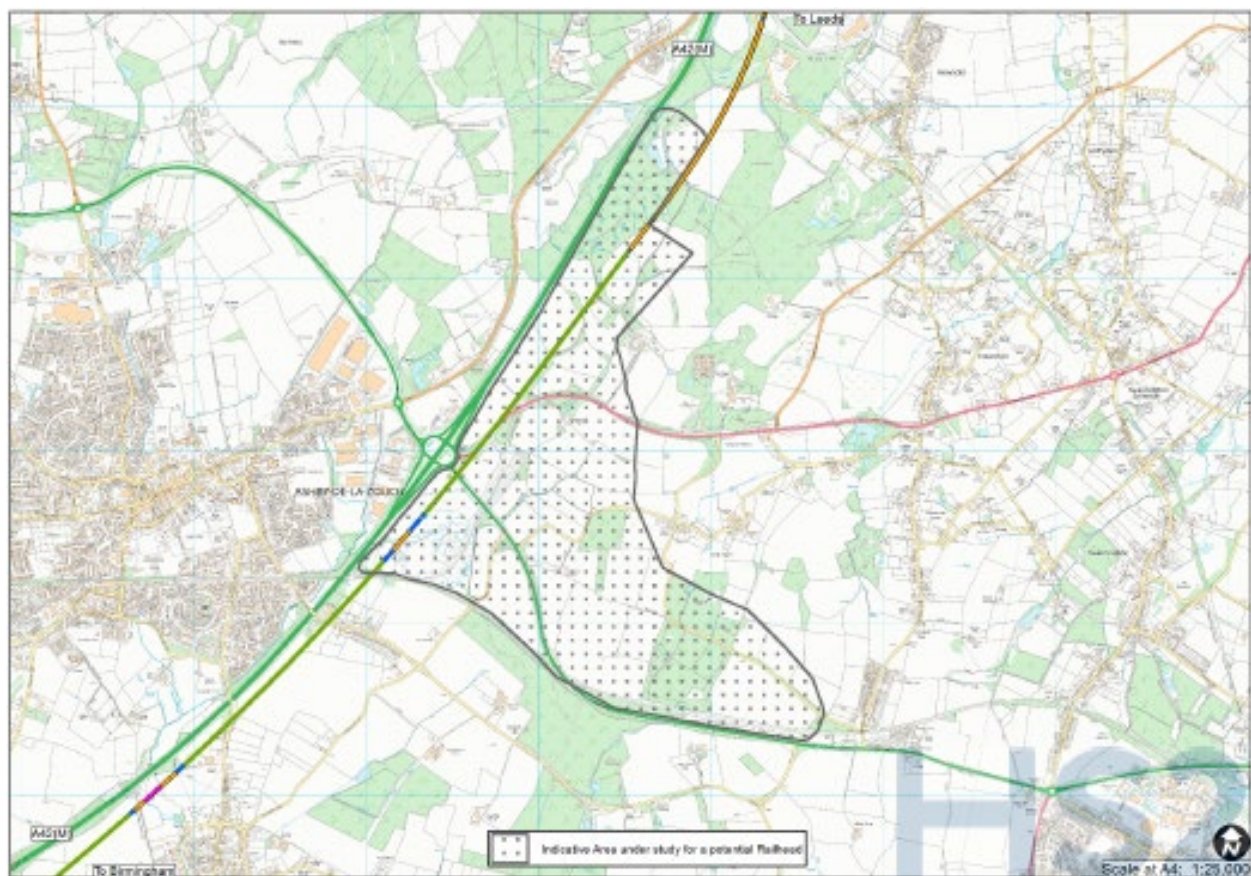
A DES is not a statutory necessity, so this is part of HS2's plan to engage with as many stakeholders as possible and inform the design process.

### Possible actions:

**We need to use this to our best advantage – HS2 are leaving plenty of scope for discussion.**

### From overview sections:

Ashby Railhead – map on p25 of the report shows the indicative area for the railhead, although in practice the site is unlikely to be this large. Residents and businesses could be alarmed by the size of the area to be surveyed.



**Possible actions:**

- **Regular liaison with HS2 to obtain further details on the Ashby railhead; the more information the better as this can be used to inform Ashby residents and those affected by the landtake or proximity of the site**
- **Look at possible gains and put together a “wants” list**

Of the total LA03 section measuring approx 12.8km, around 9.7km of it is in cutting. This may be helpful to those who are concerned about visibility and noise issues. However, there are certain sections of cutting which are above ground level. Also, the amount of cutting means that there will be considerable excavations during the construction period.

- Gilwiskaw Brook viaduct **4.9m** in height above ground level – will this help with Packington’s concerns?
- Demolitions: DES states 41 existing residential properties, 20 commercial/ business properties (including farm outbuildings) and 11 other structures:
  - Demolition of the Old Rectory
  - Demolition of outbuilding at Appleby Magna Services
  - Three properties on Rectory Lane
  - 14 industrial units at Huntingdon Court
  - 4 industrial units and outbuildings at Westminster Industrial Estate
  - Electricity substation at Burton Road, Measham
  - Treetops Farm and outbuildings (Measham)
  - Telecoms mast, Measham Road, Oakthorpe
  - Stables, Measham Road, Oakthorpe
  - 27 residential properties and outbuildings, Amersham Way, Measham
  - 7 residential properties on Park Farm, Willesley Wood Side
  - Sweethill Cottage, Willesley
  - Residential property and outbuildings on Leicester Road, New Packington
  - Commercial property Leicester Road, Ashby
  - Outbuilding, Vicarage Lane, Packington
  - Telecoms mast, Leicester Road, New Packington
  - Electricity substation, Leicester to Burton line, New Packington
  - Outbuildings, Beech Farm House, Ashby Road
  - Outbuildings, Mill Street, Packington
  - Sandwich shop, Ashby Road, Ashby
  - Telecoms mast, Ashby Road, Ashby
  - Wind turbine, Ashby Road, Ashby

**Possible actions:**

- **Check demolitions list for new additions**
- **Further information needed about the substations and telecoms masts (replacements, interim solutions etc.); background knowledge will be useful as everyone will expect the Council to know!**

### **Agricultural, Forestry and Soils:**

Noted that some farm owners have not yet had any interaction with HS2. Can the District do anything to facilitate this?

Soils stripped from agricultural land will be stored and returned to site post construction.

Measures to be put in place to lessen impacts on land adjacent to construction sites.

Table 12 on p78 sets out temporary impacts on named farms.

Table 13 on p80-81 sets out permanent impacts on named farms.

#### **Possible actions:**

- **Can the District do anything to facilitate contact with the “missing” farms?**
- **Are the permanent losses what were expected?**
- **Of the severely affected farms, do any need individual support?**

### **Air Quality:**

River Mease is noted as a sensitive area.

Air quality could be affected by demolition, construction traffic and construction activities.

No specific mitigation measures are proposed at this stage and there will be further comment in the formal ES.

#### **Possible actions:**

- **Look at possible sites for additional air quality monitoring during the construction period, e.g. near River Mease, New Packington**
- **Explore other possible wants in terms of air quality mitigation**

### **Community:**

Measham Leisure Centre not mentioned as a community resource in section 6.3.7-6.3.11; this is puzzling as recreational amenities are mentioned elsewhere in the baseline descriptions. Also, Ashby hosts an annual 10k road race, which is also not mentioned. This point would also cross-reference with the roads and traffic section

Mitigation measures already planned include:

- Resiting of a balancing pond to avoid the Rectory Lane allotments
- Tamworth Road realignment has been designed to minimise impacts on Georgina’s Wood
- New Street retaining wall helps reduce the land take and also protect properties on Windsor Way

No temporary effects identified on residential properties, community or recreational facilities resulting from the land take.

There will be an 18 month loss of access to the Rectory Lane allotments.

Temporary severance of NCN63 and bridleway O71/1 could affect cyclists and walkers. Mitigation to be included in the formal ES.

Temporary loss of 25ha of Fiveways Wood (70%) for three years. Estimated as a significant impact.

Permanent effects – demolitions as listed above.

No permanent effects on community or recreational facilities have been identified.

Permanent loss of 8ha of Fiveways Wood.

**Possible actions:**

- **Investigate need to demolish the Old Rectory. Is there another solution? May need to include justification of future use**
- **Further suitable mitigation for permanent loss of woodlands?**
- **Temporary loss of access to Rectory Lane allotments – is there another access route? If not, seek solution**
- **Investigate other mitigation measures?**

**Ecology and Biodiversity:**

River Mease and Salterswood LNR are identified. Three Local Wildlife Sites are also named; Park Farm Woodland, Willesley Wood and Packington Churchyard. National Forest is not a designated site but is part of a national initiative to increase woodland.

The assessment has looked at woodlands, grassland, hedgerows, water courses, water bodies, ancient and veteran trees, protected and notable species (see table 14, p103-106).

Mitigation measures include:

- Avoiding direct impacts to River Mease SAC and SSSI. Free passage for wildlife along Mease and Gilwiskaw Brook watercourses. However, a realignment of the Gilwiskaw Brook will cause permanent loss of a 130m section. A similar length channel will be recreated.
- Provision of woodland planting to compensate for some of that which will be lost near Measham
- Hedgerows, ponds and grassland habitats as specified on p107

Losses of parts of Fiveways and Willesley Woods are termed “significant”.

Detailed information to mitigate loss of wildlife habitats are set out in section 7.4.33.

See also Table 15 on p115-116.

**Possible actions:**

- **Are there any mitigation measures that could improve the water quality of the River Mease? (e.g. addressing issues of phosphate run-off**
- **Other possible gains?**

**Health:**

Population is less deprived than the national average.

Construction will affect populations with noise, dust, visual impacts and additional traffic. The introduction of temporary construction workers may also affect the character of the community and this effect must also be considered. Loss of properties will also have an impact.

Mitigation measures will be set out in the formal ES.

**Possible actions:**

**There are opportunities to negotiate more mitigation measures as these are still fluid.**

**Historic Environment:**

NB Field surveys are still ongoing and information could be updated.

Loss of the Old Rectory and 4 and 5 Park Farm are permanent, with no mitigation offered.

**Possible actions:**

- **As noted above, the demolition of the Old Rectory is a significant loss and no mitigation is put forward for this**
- **Ditto with 4 and 5 Park Farm; these must be pursued by the District. Future use and value of these properties may need to be considered as part of any request for mitigation measures (i.e. it is very unlikely that the Old Rectory would be suitable as a dwelling after construction but could have another use).**

**Land Quality:**

Current and historical contaminative land use is set out in Table 18 on p149-152.

The River Mease viaduct will pass close to the historic Measham Landfill site.

**Possible actions:**

- **Information on sites used for mining – are we happy with the information that HS2 setting out?**
- **Are there any other records they should be using? Is there a local expert who could be consulted?**
- **Is there any local knowledge about the landfill site?**

**Landscape and Visual:**

Construction works will be visible from many locations, and there will also be visual impacts of construction compounds and stockpiles. These are adjudged to be medium term, but a range of measures will be taken to mitigate these effects, including:

- Avoiding unnecessary removal of trees and vegetation
- Well-maintained hoardings and fencing
- Prevention of damage near to construction sites
- Thoughtful lighting design to minimise intrusion

Detailed landscape assessments are set out in sections 11.4.7-11.4.11.

Long-term mitigation will be worked into the scheme design, and these will include:

- Appropriately designed earthworks
- Woodland, scrub and hedgerow planting as screening
- Hedgerow replacement and restoration
- New wetlands, ecological ponds and biodiversity wetland features/enhancement

It is likely that planting will be commenced early on during construction to give trees/vegetation time to grow.

**Possible actions:**

**Mitigation for this section is detailed, but there may still be room for negotiation. Are there any particular wants?**

**Socio-economics:**

Mitigation measures during construction include:

- Ensuring construction site layouts minimise the possibility of nuisance to businesses
- Consulting with nearby businesses on hoardings
- Applying noise reduction measures
- Monitor and manage flood risk and other extreme weather events
- Appropriate traffic management measures
- Maintaining access to businesses

HS2 acknowledges that there may be opportunities for local employment on the scheme.

Known direct effects on businesses are listed as:

- Westminster Industrial Estate (17 business units)
- Appleby Magna Service Area (two business units)
- Treetops Farm, Measham Road (one business unit)
- Park Farm, Willesley Woodside (two business units)
- Beech Farm House, Ashby Road (one business unit)
- Meridian, Leicester Road (one business unit)
- Sandwich Shop, Ashby Road.

These comprise 170 jobs.

**Possible actions:**

- **What are the plans for rebuild of the services? And interim plans for access to fuel etc; need to ensure there is not a material loss**
- **Appleby Park Hotel is not mentioned; not for demolition but will be surrounded by the construction zone. What will happen to the business? Is there viability as a hotel during this period?**
- **How are business losses calculated? Any feedback from stakeholders?**

### **Sound, Noise and Vibration:**

Noise during construction would be under the scope of the Construction Code of Practice and it would be contractors' responsibility to ensure that noise limits are not breached. There will be core working hours.

Worth noting that as a lot of this section of HS2 is in cutting, there will be extensive excavation work during the construction period.

Further work is being undertaken to assess additional mitigation measures which will be needed, and these will be reported in the ES.

The scheme design includes noise barriers at locations which have been assessed as sensitive to noise. The following have already been identified:

- Measham; Burton Road, Dysons Close and The Croft
- Measham, Amersham Way, Kelso Close, Rosebank View, Hart Drive, Orchard Way, Blackthorn Way, Hill Rise, Lime Avenue and New Street
- Oakthorpe: Measham Road and School Street (at closest end to the railway)
- Packington: Ashby Road, Mill Street, Hall Lane, Vicarage Lane, Home Croft Drive, High Street and Normanton road, again at the closest end to the railway
- Ashby-de-la-Zouch: occupants of residential properties in the vicinity of Ashby Road, Chapmans Meadows, Upper Packington Road, The Gables, Rydal Gardens, Lowestwater Grove, Ulleswater Crescent, Thirlmere Gardens, Windermere Avenue, Derwent Gardens, Hastings Way, Windmill Close, Coniston Gardens, Ennerdale Gardens, Leicester Road and The Croft, located closest to the Proposed Scheme
- New Packington: occupants of residential properties in the vicinity of Leicester Road, located closest to the Proposed Scheme, identified as LA03-C06 on Map SV-01-359a.

HS2 have issued a precaution that Beech House Packington and Leicester Road New Packington may be affected by noise levels which exceed the daytime limits. Further work is to be undertaken.

#### **Possible actions:**

- Any independent information available on the noise profiles?
- Likely to be many queries on the accuracy of HS2's noise maps from residents

### **Traffic and Transport:**

During construction, some mitigation measures have been identified:

- New highways (roads and PRoW) to constructed and operational prior to the permanent closure of any existing highways, as far as practicable
- The majority of roads crossing the route of HS2 to be maintained or locally diverted during construction to limit the need for diversion of traffic onto alternative routes
- Appropriate traffic management measures to limit any disruption
- Road closures restricted to overnight and weekends as far as possible
- temporary alternative routes for PRoW would be provided during construction where possible



- Where reasonably practicable, site haul routes would be created adjacent to the route of the Proposed Scheme to transport construction materials and equipment to reduce heavy goods vehicle (HGV) movements on public roads with access taken via the main road network
- Route HGVs along the strategic and/or primary road network where possible
- Limit the use of the local road networks would to site set-up, access for surveys and on-going servicing (including refuse collection and general deliveries to compounds) during construction
- Reuse of excavated materials
- Junction improvements, passing places and carriageway widening to manage safe passing of construction vehicles on construction HGV routes
- On-site welfare facilities onsite for workers

Routes for construction traffic are identified as:

- M42 junction 11
- A444 Atherstone Road south east of junction 11 of the M42 to Austrey Lane
- A444 Acresford Road north-west of junction 11 of the M42 to Measham Road
- A511 Ashby Road east of junction 13 of the A42 to Corkscrew Lane
- B4116 from junction 12 of the A42 to Measham Road
- B5493 (south-west of the M42 junction 11) to No Man's Heath
- Tamworth Road between junction 11 and Huntingdon Way (Measham)
- Huntingdon Way in Measham
- Burton Road, Measham
- Measham Road between Huntingdon Way and Acresford Road
- Corkscrew Lane in New Packington
- Leicester Road in New Packington

Temporary highway closures and realignments which might cause disruption are also listed:

- Burton Road east of Huntingdon Way
- Measham Road, west of Measham
- Huntingdon Way, south of Repton Road
- B4116 Measham Road, south of the A42 junction 12
- Ashby Road, north of Packington and south of the A42
- Leicester Road, west of New Packington and east of the A42
- A511 Ashby Road, at the A42 junction 13.

A list of affected PRowS is available at section 14.5.9.

Permanent highway changes are listed in section 14.5.13 but HS2 estimates that these will not cause significant delays to travellers or increases in journey times.

Engagement is ongoing.

**Possible actions:**

- Investigate the use of Packington roads for construction traffic; residents likely to be unhappy
- Careful checking needed, and further information on scheduling of road realignments/closures



## **Water Resources and Flood Risk:**

HS2 are erring on the side of risks to watercourses being higher than actual.

Saltersford Wood Local Nature Reserve is noted as a water-dependent habitat, and the River Mease SAC and SSSI are noted as potentially dependent on surface water flows (parts of the Gilwiskaw Brook are bracketed with the River Mease).

The substantial floodplains within the area are also highlighted, with properties potentially at risk set out in Table 34 on p233-235.

Watercourse diversions have been largely avoided except for a short section of Gilwiskaw Brook and Coleorton Brook at the New Packington culvert.

Contractor will be working under a Code of Practice to protect water resources.

Residual effects are listed as:

- a moderate adverse effect related to the positioning of the viaduct piers on the hydromorphology of the River Mease floodplain, which is significant
- a moderate adverse effect related to Measham Road Packington cutting on the hydromorphology of Gilwiskaw Brook, which is significant
- a moderate adverse effect related to the realignment of Gilwiskaw Brook under Gilwiskaw Brook viaduct on the hydromorphology of the brook, which is significant
- moderate adverse effect related to the realignment under New Packington culvert on the hydromorphology of tributary 2 of Coleorton Brook, which is significant.

### **Possible actions:**

- **Obtain expert advice on suggested mitigation in this section**
- **Are there any possible gains via mitigation?**

**Kym Smith**

**SLC Rail, 15<sup>th</sup> November 2018 V2**

## Headline Notes on the Draft Environmental Statement, LA04 section

**Note: HS2's impact assessments are based upon worst case scenarios.**

### From introductory sections:

HS2 are very clear that the DES is in no way a “final” document and there will be scope for improvement all the way along the process.

A DES is not a statutory necessity, so this is part of HS2's plan to engage with as many stakeholders as possible and inform the design process.

### Possible actions:

**We need to use this to our best advantage – HS2 are leaving plenty of scope for discussion.**

### From overview sections:

The LA04 section is approximately 15.2km in length; cuttings comprise 6.8km of this and embankments for 7.6km, with two viaducts totalling 828m.

The demolitions required for this section of the route are:

- Field House, Nottingham Road, Staunton Harold
- Lodge Farm, Long Hedge Lane, Worthington
- White House Fields Farm, Breedon Lane, Worthington
- Outbuildings, Worthington Field Farm, Long Hedge Lane, Worthington
- Silo, Mill House Farm, Worthington
- Gate House, Melbourne Road, Coleorton
- Newbold Gate (residential property and outbuildings), Melbourne Road, Coleorton
- Smoile Farm, Melbourne Road, Lount
- Basildon Lodge, Melbourne Road, Staunton Harold
- Electricity substation, Melbourne Road, Newbold
- Operations Buildings, Cloud Hill Quarry
- Gelscoe Lodge Farm, Mill Lane, Belton
- Pumping station, Doctor's Lane, Breedon on the Hill
- Molehill Farm, Ashby Road, Kegworth
- Commercial business at Mole Hill Farm
- Telecoms mast, Ashby Road, Kegworth

### Possible actions:

- **Check demolitions list for new additions**
- **Further information needed about the substation, pumping station and telecoms mast (replacements, interim solutions etc.); background knowledge will be useful as everyone will expect the Council to know!**

### **Agricultural, Forestry and Soils:**

Noted that some farm owners have not yet had any interaction with HS2. Can the District do anything to facilitate this?

Soils stripped from agricultural land will be stored and returned to site post construction.

Measures to be put in place to lessen impacts on land adjacent to construction sites.

Temporary and permanent impacts on farms are set out in Tables 10 and 11 respectively. This section of the railway will require a land take of approx. 600ha of agricultural land (380ha permanently) which is considerable. HS2 has noted that this is significant.

#### **Possible actions:**

- **Can the District do anything to facilitate contact with the “missing” farms?**
- **May need further investigation because of the large amount of agricultural land needed; HS2 will be open to looking at other mitigation measures for the formal ES**
- **Of the severely affected farms, do any need individual support?**

### **Air Quality:**

This area of the route is subject to air quality issues because of the M1, airport and other major roads. Refresco has a licence for emissions to air from processing of raw vegetable materials. Near Castle Donington there are large distribution centres, and the Rail Freight Terminal under construction.

Air quality could be affected by demolition, construction traffic and construction activities.

HS2 notes that there are SSSIs and ancient woodlands in this section of the route.

#### **Possible actions:**

**No specific mitigation measures are proposed at this stage – anything we want to flag up?**

### **Community:**

The draft Construction Code of Practice includes measures for minimising effects on communities.

Temporary effects on Rough Park and Birch Coppice (approx. 95ha); temporary severance of Ivanhoe Way; temporary diversion of the Cloud Trail and NCN15;

Permanent loss of buildings through demolition is noted.

HS2 state that there are no permanent effects on community facilities in this section.

No mention of effects on Kegworth sports facilities in this section.

#### **Possible actions:**

- **No mention of effects on Kegworth’s sports facilities in this section, although realise that HS2 are in a difficult position because of the status of the development sites when the route was announced in July 2017**
- **Are the permanent losses what were expected?**
- **Investigate other community mitigation that could be requested**

## Ecology and Biodiversity:

SSSIs in the area are Lount Meadows, Breedon Cloud Wood and Quarry, and Pasture and Asplin Woods. New Lount is a Local Nature Reserve, and there are two local wildlife sites. There are also five Ancient Woodland Inventory Sites; Rough park, Lount Wood, Birch Coppice, Breedon Cloud Wood and Pasture/Asplin Woods. HS2 is continuing to survey woodland areas.

The assessment has looked at woodlands, grassland, hedgerows, water courses, water bodies, ancient and veteran trees, protected and notable species (see table 14, p103-106).

Mitigation measures include:

- Viaducts over the Boden Brook and Diseworth Brook, to help protect watercourses and allow free passage for wildlife beneath them including along the rivers and their banks
- wetland habitat creation in the floodplain of Boden Brook, Westmeadow Brook, Diseworth Brook and Long Whatton Brook
- New woodland planting (including landscape woodland planting) to help compensate for the losses of nonancient woodland between the A42 and HS2, west of Birch Coppice, in the area of Tonge Gorse and Diseworth Gorse, and to enhance connectivity between remaining woodlands.
- provision of new ponds in the Appleby Parva to Ashby-de-la-Zouch area (LA03) to the south, to help address loss of water bodies and effects on great crested newt and other species in the Coleorton to Kegworth area.
- new species-rich hedgerows and grassland habitats, including species-rich grassland and wetland habitat creation

Detailed information to mitigate loss of wildlife habitats are set out in Table 13.

### Possible actions:

- Investigate suitability of proposed mitigation measures
- Are local environmental groups able to provide any further information about the area, particularly woodland?
- Other possible gains from mitigation

## Health:

Population is less deprived than the national average.

Construction will affect populations with noise, dust, visual impacts and additional traffic. The introduction of temporary construction workers may also affect the character of the community and this effect must also be considered. Loss of properties will also have an impact.

### Possible actions:

- Likely to be a substantial number of construction workers based at Kegworth; if not local, they will need access to medical/welfare facilities. Provision?
- Health benefits from recreation noted, but again no specific reference to Kegworth
- Mitigation measures will be set out in the formal ES, so opportunities for improvement here

### Historic Environment:

There are detailed lists of sites and assets, with historic values. The LA04 section of the route has more features, probably because of the rural nature of this piece of the District.

It is noted that there will be significant temporary effects on Coleorton Hall, Hall Farmhouse, Mill Farmhouse, the Church of St Mary and St Hardulph, the medieval moated lodge north west of Breedon Lodge and Breedon Lodge Farmhouse and Cottage.

Permanent effects are noted on the following:

- Cropmark north-east of Long Mere Farm
- Possible enclosure north-west of the computer centre
- Ring ditch, Fulcrum Site Field 17
- Various features east of junction 24 (M1)
- Breedon Park
- Moated site, High Woods, Diseworth
- Coleorton wagonway
- Cloud Hill Plateway
- Post-medieval lime kilns near Lount
- Three buildings at Newbold Gate
- Smoile Farm and associated outbuildings
- Basildon Lodge
- Lodge Farm and associated outbuildings
- White House Fields Farm and associated outbuilding
- Post-medieval finds and features from Cloud Hill Quarry
- Post-medieval field boundary at Cloud Hill Quarry
- Gelscoe Lodge Farm and associated outbuilding
- Mole Hill Farm

In addition, the settings of St Mary and St Hardulph church, Breedon Lodge Moat and Breedon Lodge Farmhouse and Cottage will be permanently affected by the presence of HS2.

No mitigation measures have been set out for these effects. However, HS2 are still considering suitable measures which may include advance planting to protect the settings of some assets.

#### **Possible actions:**

- **List of affected assets is quite considerable in this section; investigate whether there are any further suitable mitigation measures**
- **Are there any local history groups which could provide input?**

### Land Quality:

Current and historical contaminative land use is set out in Tables 16, 17 and 18 on p144-148.

Permanent impacts are set out in Table 22 on p160.

HS2 have set out detailed management measures through the Code of Construction Practice, but at the moment no mitigation for any specific site has been set out.

**Possible actions:**

- **Investigate if mining/landfill information is accurate? Are there any other records available?**
- **Are there any possible gains from reuse of decontaminated land after construction?**

**Landscape and Visual:**

Construction works will be visible from many locations, and there will also be visual impacts of construction compounds and stockpiles. These are adjudged to be medium term, but a range of measures will be taken to mitigate these effects, including:

- Avoiding unnecessary removal of trees and vegetation
- Well-maintained hoardings and fencing
- Prevention of damage near to construction sites
- Thoughtful lighting design to minimise intrusion

Maps and photographs are provided between sections 11.3.8 and 11.3.9. Detailed landscape assessments are set out in section 11.5.

Long-term mitigation will be worked into the scheme design, and these will include:

- Appropriately designed earthworks
- Woodland, scrub and hedgerow planting as screening
- Hedgerow replacement and restoration
- New wetlands, ecological ponds and biodiversity wetland features/enhancement

It is likely that planting will be commenced early on during construction to give trees/vegetation time to grow.

**Possible actions:**

- **Do we agree with the viewpoints used and estimates of visual effects?**
- **Are there any other gains that can be achieved with landscaping?**

**Socio-economics:**

Mitigation measures during construction include:

- Ensuring construction site layouts minimise the possibility of nuisance to businesses
- Consulting with nearby businesses on hoardings
- Applying noise reduction measures
- Monitor and manage flood risk and other extreme weather events
- Appropriate traffic management measures
- Maintaining access to businesses

HS2 acknowledges that there may be opportunities for local employment on the scheme.

Opportunities: there will be two main construction compounds – at Top Brand and Ashby Road – and 10 satellite compounds in the Coleorton to Kegworth area. HS2 estimate that this could equate to 283 full-time jobs, which may be suitable for local people or those living slightly further afield.

Direct construction employment could also lead to opportunities for local businesses to form part of the supply chain for the project or to benefit from expenditure of construction workers.

There will be direct effects on the business of Cloud Hill Quarry; some buildings will need to be demolished and rebuilt, with an impact on workers and the business of the quarry.

**Possible actions:**

- **Target audience for local jobs?**

**Sound, Noise and Vibration:**

Noise during construction would be under the scope of the Construction Code of Practice and it would be contractors' responsibility to ensure that noise limits are not breached. There will be core working hours.

As this section of the route is in a more rural area, lower numbers of people will be directly affected by noise.

Further work is being undertaken to assess additional mitigation measures which will be needed, and these will be reported in the ES.

**Traffic and Transport:**

During construction, some mitigation measures have been identified:

- New highways (roads and PRow) to constructed and operational prior to the permanent closure of any existing highways, as far as practicable
- The majority of roads crossing the route of HS2 to be maintained or locally diverted during construction to limit the need for diversion of traffic onto alternative routes
- Appropriate traffic management measures to limit any disruption
- Road closures restricted to overnight and weekends as far as possible
- temporary alternative routes for PRow would be provided during construction where possible
- Where reasonably practicable, site haul routes would be created adjacent to the route of the Proposed Scheme to transport construction materials and equipment to reduce heavy goods vehicle (HGV) movements on public roads with access taken via the main road network
- Route HGVs along the strategic and/or primary road network where possible
- Limit the use of the local road networks would to site set-up, access for surveys and on-going servicing (including refuse collection and general deliveries to compounds) during construction
- Reuse of excavated materials
- Junction improvements, passing places and carriageway widening to manage safe passing of construction vehicles on construction HGV routes
- On-site welfare facilities onsite for workers

Routes for construction traffic are identified as:



- M1, junction 23a and junction 24
- A42, between junction 13 of the A42 and junction 23a of the M1
- A453 Ashby Road from The Green to the M1 junction 24
- A6 Kegworth Bypass, south of Kegworth
- A6 Derby Road, south-east of the M1 junction 24 to Side Ley
- B587 Nottingham Road in Lount, between A511 Ashby Road and Melbourne Road
- B5324 Rempstone Road from A511 to Top Brand
- Melbourne Road in Coleorton
- Bull Hill in Worthington
- Manor Road in Worthington
- Main Street in Worthington
- Newbold Lane in Worthington
- Breedon Lane north of Worthington
- Stocking Lane between Top Brand and the A42
- Top Brand, south of the A42 junction 14
- Gelscoe Lane, east of the A42 junction 14
- Mill Lane (both western and eastern branches), south-east/east of the A42 junction 14
- Long Mere Lane south of Diseworth
- The Green in Diseworth

Temporary highway closures and realignments which might cause disruption are also listed:

- M1, east of Diseworth and south of M1 junction 23a which will be subject to temporary traffic management measures to maintain traffic flows
- A6 Kegworth Bypass, south-west of Kegworth
- A6 Derby Road south-east of the M1 junction 24
- Stocking Lane, between Top Brand and the A42 west of the A42 junction 14
- The Green, between Long Whatton to the east and Diseworth to the west.

Permanent highway changes are listed in section 14.5.5 but HS2 estimates that these will not cause significant delays to travellers or increases in journey times.

Engagement is ongoing.

**Possible actions:**

- **Investigate roads designated for construction traffic for effects on residents**
- **Careful checking needed, and further information on scheduling of road realignments/closures**

**Water Resources and Flood Risk:**

HS2 are erring on the side of risks to watercourses being higher than actual.

Flood plains have been identified by HS2 at Boden Brook at Breedon on the Hill, as well as Westmeadow Brook and Diseworth Brook at Long Whatton (where these watercourses merge into Long Whatton Brook). Numerous areas in this section are subject to surface flooding and these are set out in Table 34 on p234.

The design of the works in this area have sought to mitigate the affected watercourses with the following:

- Drop inlet culverts and inverted siphons have been avoided
- Culvert lengths have been reduced as far as is reasonably practicable
- Invert levels will be set below the firm bed of the watercourse to allow a natural substrate to develop along the bed of the culvert.

In addition, the construction of Gelscoe aqueduct will carry the unnamed tributary 1 of Diseworth Brook (south of Gelscoe Lane) over HS2, which will be in cutting.

A proposed haul route will cross Boden Brook on a temporary bridge.

Contractor will be working under a Code of Practice to protect water resources.

Residual effects are listed as:

- A moderate adverse temporary impact on two spring features near Long Whatton and Kegworth, resulting in moderate adverse effects, which are significant
- A moderate adverse effect related to the construction of Gelscoe aqueduct on the hydromorphology of unnamed tributary 1 of Diseworth Brook, which is significant
- Moderate adverse effects related to the construction of culverts on the hydromorphology of Boden Brook, unnamed tributary of Boden Brook, unnamed tributary 1 of Diseworth Brook, unnamed tributaries 1 and 2 of Westmeadow Brook and an unnamed tributary of the River Soar, which are significant.

**Possible actions:**

- **Obtain expert advice on suggested mitigation in this section. Are there any cautions on HS2's suggestions?**
- **Are there any possible gains via mitigation?**

Kym Smith

SLC Rail, 15<sup>th</sup> November 2018 V2