

# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and  
Additional Provision 2 Environmental Statement

Volume 5 | Technical appendices map book  
Land quality

July 2015

SES and AP2 ES 3.5.15



# **HIGH SPEED RAIL (LONDON - WEST MIDLANDS)**

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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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# Contents

Mapping explanatory notes

Data dictionary and definitions

Map series name	LQ-01 - Land Quality
Map series description	<i>This Land Quality mapping shows potential sources of existing contamination close to the route as well as historical and operational landfill sites, current and potential future mining or mineral exploitation and geo-conservation sites.</i>
Community Forum Area name	
CFA 04 – Kilburn (Brent) to Old Oak Common	✖
CFA 05 – Northolt Corridor	✖
CFA 06 – South Ruislip to Ickenham	✖
CFA 07 – Colne Valley	✖
CFA 08 – The Chalfonts and Amersham	✖
CFA 09 – Central Chilterns	✖
CFA 10 – Dunsmore, Wendover and Halton	✖
CFA 11 – Stoke Mandeville and Aylesbury	✖
CFA 12 – Waddesdon and Quainton	✖
CFA 13 – Calvert, Steeple Claydon, Twyford and Chetwode	✖
CFA 14 – Newton Purcell to Brackley	✖
CFA 15 – Greatworth to Lower Boddington	✖
CFA 16 – Ladbroke and Southam	✖
CFA 17 – Offchurch and Cubbington	✖
CFA 18 – Stoneleigh, Kenilworth and Burton Green	✖
CFA 19 – Coleshill Junction	✖
CFA 20 – Curdworth to Middleton	✖
CFA 21 – Drayton Bassett, Hints and Weeford	✖
CFA 22 – Whittington to Handsacre	✖
CFA 23 – Balsall Common and Hampton-in-Arden	✖
CFA 24 – Birmingham Interchange and Chelmsley Wood	✖
CFA 25 – Castle Bromwich and Bromford	✖
CFA 26 – Washwood Heath to Curzon Street	✓
Off-route – Heathrow Express (HEX) Depot Relocation	✓
Off-route – Modifications to WCML between Lichfield and Colwich	✖

# Mapping explanatory notes

## Structure of the HS2 Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

The Supplementary Environmental Statement (SES) and Additional Provision 2 Environmental Statement (AP2 ES) comprises:

- Non-technical summary (NTS). This provides a summary in non-technical language of the SES (Part 1) and AP2 ES (Part 2) and of any likely significant environmental effects, both beneficial and adverse, which are new or different to those reported in the High Speed 2 (HS2) Phase One Environmental Statement (ES) submitted to Parliament in November 2013 in support of the hybrid Bill ('the Bill') for Phase One of HS2 (hereafter referred to as 'the main ES') and, where relevant, the AP ES submitted in September 2014 (hereafter referred to as 'the AP1 ES').
- Volume 1: Introduction to the SES and the AP2 ES. This introduces the supplementary environmental information and design changes included within the SES and amendments which have resulted in the need to amend the Bill within the AP2 ES. It also explains any changes to the scope, methodology, assumptions and limitations required for the environmental impact assessment.
- Volume 2: Community Forum Area (CFA) reports and Map Books. These describe the supplementary environmental information and design changes included within the SES (Part 1), amendments within the AP2 ES (Part 2) and report any new or different likely significant environmental effects arising from these changes in each CFA compared to those reported in the main ES and, where relevant, the AP1 ES. The main local alternatives that have been considered are described, where relevant.
- Volume 3: Route-wide effects. This reports new or different likely significant route-wide effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP2 ES (Part 2) compared to those reported in the main ES and, where relevant, the AP1 ES.
- Volume 4: Off-route effects. This reports new or different likely significant off-route effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP2 ES (Part 2) compared to those reported in the main ES and, where relevant, the AP1 ES.
- Volume 5: Appendices and Map Books. This contains supporting environmental information and associated maps in support of the CFA sections of Volume 2.
- Glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and AP2 ES compared to those included in the main ES and AP1 ES.

## Copyright statements

Copyright statements are presented in the Data dictionary and definitions section at the front of the map book, due to limited space to include this on the individual maps themselves.

## Ordnance Survey data

All maps produced as part of the London-West Midlands Supplementary Environmental Statement (SES) and Additional Provision 2 Environmental Statement (AP2 ES) contain Ordnance Survey (OS) data. HS2 Ltd use the most up to date mapping available, where possible, supplied by the OS and as such, we cannot be held responsible for any inaccuracies within this data.

As part of our licence conditions, all digital maps carry a watermark.

## Chainage

Most of the maps presented as part of the SES and AP2 ES have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XX+YYY. E.g. 77+000 or 158+500.

Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres. E.g. 77+000 refers to the point, 77,000m, or 77km, from Euston Station. Chainage values increase in intervals dependant on the map scale. For maps at 1:50,000 scale chainage is shown at 5km intervals. For maps at 1:25,000 scale chainage is shown at 2km intervals. For maps at 1:10,000, 1:5,000 and 1:2,500 scales, chainage is shown at 1km intervals.

Chainage has been included on the maps as a useful tool for comparing different map sets showing the different environmental themes or engineering plans, due to map sets having different scales and therefore showing differing amounts of alignment on the map.

Map sheet layout

Each map in Volume 2 is presented twice, with the main ES map (published November 2013) on the left hand page and the SES and AP2 ES map on the right. For the CT-o5 and CT-o6 map series, the SES and AP2 ES map is annotated with different coloured clouds which highlight the areas of change. The coloured text box provides a brief description of the design change and amendment, and gives the SES and AP2 ES reference number. Only maps which have been amended as a result of the SES and AP2 ES are included within the map books. Other design changes which are within the existing limits of the Bill and do not result in new or different likely significant effects are also shown on the maps, but are not indicated by a cloud. The below table highlights the coloured clouds used, and their description.

Cloud / text box colour	Description
Blue	Design changes relating to the SES (Part 1 of each Volume 2 CFA report).
Red	Proposed amendments relating to AP2 (Part 2 of each Volume 2 CFA report).
Grey	Proposed amendments relating to AP1, as they appeared in the AP1 ES, provided for reference.

Each Volume 5 map is annotated to describe the change to a receptor or significant effect, and to give the SES and AP2 ES reference number. For more detailed information about the SES and AP2 ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES and AP2 ES are included within the map book.

Map orientation

The majority of the maps presented in these map books are presented with the railway alignment running horizontally across the page. The direction of travel to London would be following the alignment to the right hand side of the page, and the West Midlands to the left.

The exception to this, are map series LV-o3 and LV-o4, which present the alignment running from bottom to top of the page. This is to allow more of the modelled outputs to be shown at the appropriate map scale. In this instance, the direction of travel to London would be to the bottom of the page, and the West Midlands to the top.

Map books

In total there are 53 map books which make up the SES and AP2 ES, spread across volumes 2, 4 and 5. A list of the titles is provided below for reference.

Name	Name
Volume 2 Community forum area map book: CFA4 Kilburn (Brent) to Old Oak Common	Volume 5 Technical appendices map book: Ecology - London Metropolitan (CFA4-6)
Volume 2 Community forum area map book: CFA5 Northolt Corridor	Volume 5 Technical appendices map book: Ecology - CFA7 Colne Valley
Volume 2 Community forum area map book: CFA6 South Ruislip to Ickenham	Volume 5 Technical appendices map book: Ecology - CFA8 The Chalfonts and Amersham
Volume 2 Community forum area map book: CFA7 Colne Valley	Volume 5 Technical appendices map book: Ecology - CFA9 Central Chilterns
Volume 2 Community forum area map book: CFA9 Central Chilterns	Volume 5 Technical appendices map book: Ecology - CFA10 Dunsmore, Wendover and Halton
Volume 2 Community forum area map book: CFA10 Dunsmore, Wendover and Halton	Volume 5 Technical appendices map book: Ecology - CFA11 Stoke Mandeville and Aylesbury
Volume 2 Community forum area map book: CFA11 Stoke Mandeville and Aylesbury	Volume 5 Technical appendices map book: Ecology - CFA12 Waddesdon and Quainton
Volume 2 Community forum area map book: CFA12 Waddesdon and Quainton	Volume 5 Technical appendices map book: Ecology - CFA13 Calvert, Steeple Claydon, Twyford and Chetwode
Volume 2 Community forum area map book: CFA13 Calvert, Steeple Claydon, Twyford and Chetwode	Volume 5 Technical appendices map book: Ecology - CFA14 Newton Purcell to Brackley
Volume 2 Community forum area map book: CFA14 Newton Purcell to Brackley	Volume 5 Technical appendices map book: Ecology - CFA15 Greatworth to Lower Boddington
Volume 2 Community forum area map book: CFA15 Greatworth to Lower Boddington	Volume 5 Technical appendices map book: Ecology - CFA16 Ladbroke and Southam
Volume 2 Community forum area map book: CFA16 Ladbroke and Southam	Volume 5 Technical appendices map book: Ecology - CFA17 Offchurch and Cubbington
Volume 2 Community forum area map book: CFA17 Offchurch and Cubbington	Volume 5 Technical appendices map book: Ecology - CFA18 Stoneleigh, Kenilworth and Burton Green
Volume 2 Community forum area map book: CFA18 Stoneleigh, Kenilworth and Burton Green	Volume 5 Technical appendices map book: Ecology - CFA19 Coleshill Junction
Volume 2 Community forum area map book: CFA19 Coleshill Junction	Volume 5 Technical appendices map book: Ecology - CFA20 Curdworth to Middleton
Volume 2 Community forum area map book: CFA20 Curdworth to Middleton	Volume 5 Technical appendices map book: Ecology - CFA21 Drayton Bassett, Hints and Weeford
Volume 2 Community forum area map book: CFA21 Drayton Bassett, Hints and Weeford	Volume 5 Technical appendices map book: Ecology - CFA22 Whittington to Handsacre
Volume 2 Community forum area map book: CFA22 Whittington to Handsacre	Volume 5 Technical appendices map book: Ecology - West Midlands Metropolitan (CFA23-26)
Volume 2 Community forum area map book: CFA23 Balsall Common and Hampton-in-Arden	Volume 5 Technical appendices map book: Ecology - Off-route
Volume 2 Community forum area map book: CFA24 Birmingham Interchange and Chelmsley Wood	Volume 5 Technical appendices map book: Land quality
Volume 2 Community forum area map book: CFA25 Castle Bromwich and Bromford	Volume 5 Technical appendices map book: Landscape and visual
Volume 2 Community forum area map book: CFA26 Washwood Heath to Curzon Street	Volume 5 Technical appendices map book: Socio-economics
Volume 4 Off-route effects map book	Volume 5 Technical appendices map book: Sound, noise and vibration
Volume 5 Technical appendices map book: Agriculture, forestry and soils	Volume 5 Technical appendices map book: Traffic and transport
Volume 5 Technical appendices map book: Air quality	Volume 5 Technical appendices map book: Water resources
Volume 5 Technical appendices map book: Community	Volume 5 Technical appendices map book: Cross-topic appendix 1 - Committed developments
Volume 5 Technical appendices map book: Cultural heritage	



# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and  
Additional Provision 2 Environmental Statement

Volume 5 | Data dictionary and definitions

# Data dictionary and definitions

Legend features	Definition	Source	Copyright
Actual or potential mining/mineral exploitation area	Information on actual or potential mining or mineral resources has been derived from a number of sources including Local Authorities. The way in which Authorities use such designations as Mineral Safeguarding Areas (MSA), Preferred Areas of Search (PAS), Areas of Search (AS) and other designations varies. Where MSAs cover large areas of a county they are referred to in the text, but are not shown on maps. Individual sites, such as PAS and current workings, are shown. Where possible, information has been obtained in digital format. This has not always been possible, and where necessary information has been digitised from paper/pdf formats, with a possible loss of accuracy.	British Geological Survey (BGS) under commission by respective Mineral Planning Authorities.	Based upon data provided by British Geological Survey © NERC. All rights reserved. BGS Digital Data Licence No. 2012/062  © Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Areas assessed as not posing a contaminative risk to the proposed scheme	Areas of land that have been inferred from existing information such as historical use maps, borehole records and testing not to be at risk of containing concentrations of contaminants above background levels.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Areas assessed as potentially posing a contaminative risk to the proposed scheme	Areas of land that have been inferred from existing information such as historical use maps, borehole records and testing to be at risk of containing concentrations of contaminants above background levels, and combined with features that may allow exposure of those contaminants to a viable environmental receptor (which may include humans and buildings). These sites do not automatically equate to identify 'potentially contaminated land' as defined by EPA 1990.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Community forum boundary	The Environmental Statement has been split into 26 sections called Community Forum Areas.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Depot, station, headhouse or portal building	Extends to cover operational footprint of each depot and station and the footprint of each tunnel vent shaft and headhouse at surface level. Excludes any ancillary buildings associated with these structures.	High Speed Two (HS2) Ltd	
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Geo-conservation sites	Identified and managed site of geological or geomorphological or mineral interest, which can include natural processes such as coastal erosion, and where consideration of their importance becomes integral to the planning process.	SSSI – Natural England	Contains, or is based on, information supplied by Natural England. © Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel portals, vent shafts and headhouses, but does not apply to wholly tunnelled sections or to air rights. It also encompasses associated highway, access, drainage and utility works.	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
Landfill site (historical or active)	<p>A historical (closed) landfill site is one where there is no PPC permit or waste management licence currently in force.</p> <p>The local authority recorded landfill sites dataset contains landfill records sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control Pollution Act (COPA) in 1974.</p>	Environment Agency	© Environment Agency copyright and/or database right 2015. All rights reserved. Bespoke licence agreement LIG\2012\40160411
Landfill site (historical or active)	Additional landfill sites missing from third party datasets.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Mineral safeguarding areas	Mineral safeguarding areas are areas of known mineral resources that are of sufficient economic or conservation value (such as building stones) to warrant protection for generations to come. The level of information used to prove the existence of a mineral resource can vary from geological mapping to more in depth geological investigations.	British Geological Survey (BGS)	Derived from 1:50000 scale BGS Digital Data under Licence (Digital Data Licence No. 2012/062) British Geological Survey. © NERC.
Registered park or garden	<p>Parks and Gardens of special historic interest.</p> <p>Supplied by English Heritage. Of the 1,590 Registered Parks and Gardens, over 91% were captured against the 1:10,000 Ordnance Survey Raster product. 135 records are potentially subject to movement under Positional Accuracy Improvement (PAI) improvements.</p>	English Heritage	<p>© English Heritage 2015. Contains Ordnance Survey data © Crown copyright and database right 2015</p> <p>The English Heritage GIS Data contained in this material was obtained on 18 February 2015. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a>.</p>
Route in tunnel Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Water body	Based on Ordnance Survey Vector Map District.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.
Watercourse	The Detailed River Network (DRN) is the only large-scale, accurate and fully attributed digital river centreline covering England and Wales.	Environment Agency	© Environment Agency copyright and/or database right 2015. All rights reserved.
Woodland	Woodland areas derived from Ordnance Survey mastermap data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2015.

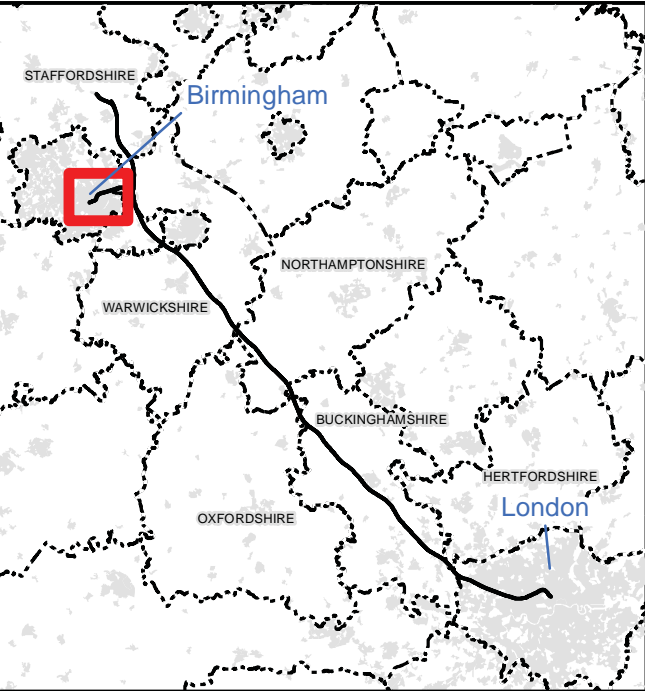
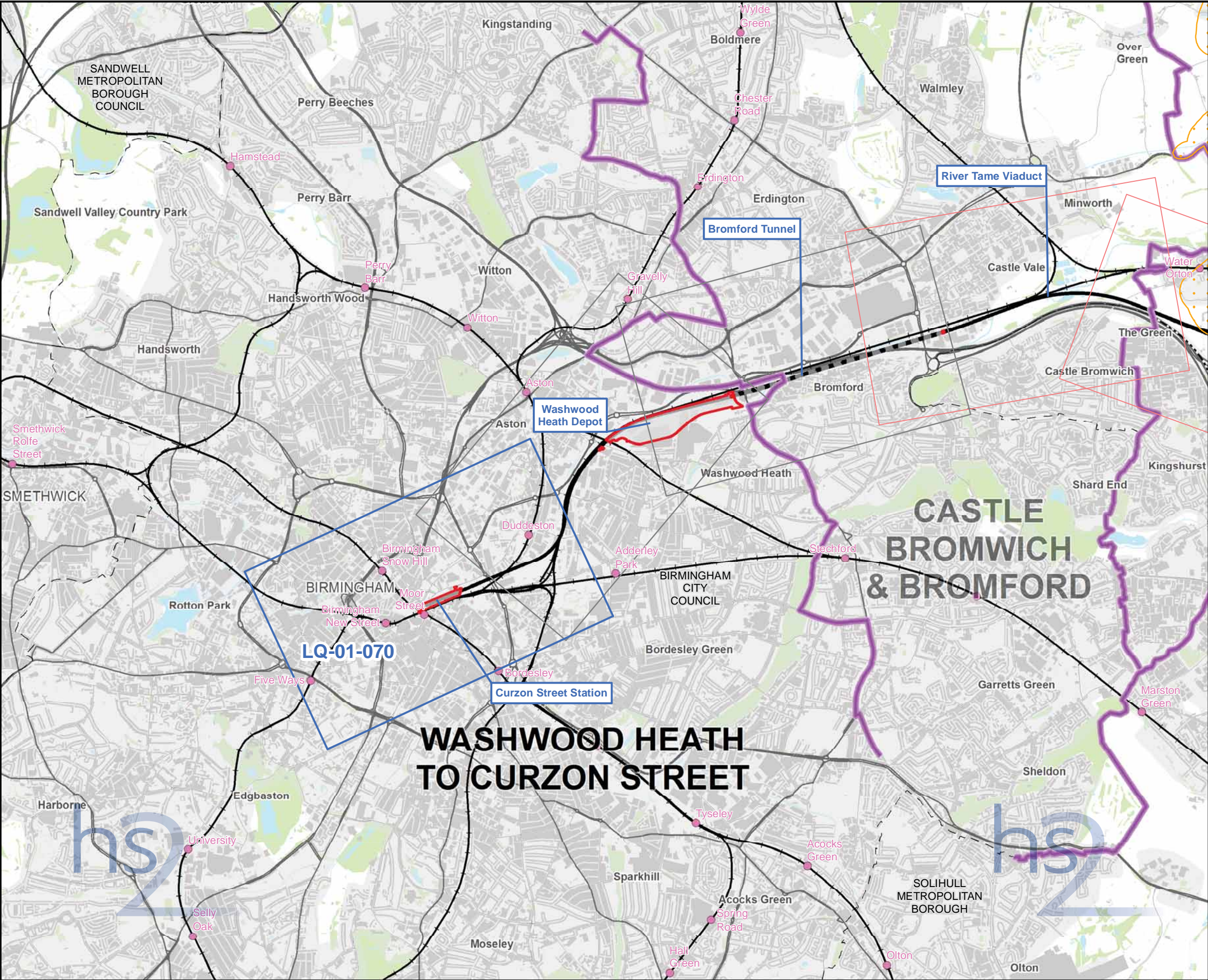
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# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and  
Additional Provision 2 Environmental Statement

Volume 5 | CFA26 | Washwood Heath to Curzon Street  
LQ-01 – Land Quality





**Map Series Information:**

The Land Quality mapping shows potential sources of existing contamination close to the route as well as historical and operational landfill sites, current and potential future mining or mineral exploitation and geo-conservation sites.

**Main Map Legend**

Route in tunnel

Route on surface

Depot, station, headhouse or portal building

Community forum boundary

Existing railway station

County boundary

District/Borough boundary

Map sheets included in this community forum with amendment

Map sheets included in this community forum with no amendment

Map sheets not included in this community forum

Mineral safeguarding areas - sand and gravel

Map Number

LQ-01-INDEX-CFA26

Map Name

Index Map of:  
Land Quality  
SES and AP2 ES

Community Forum Area CFA26:  
Washwood Heath to Curzon Street

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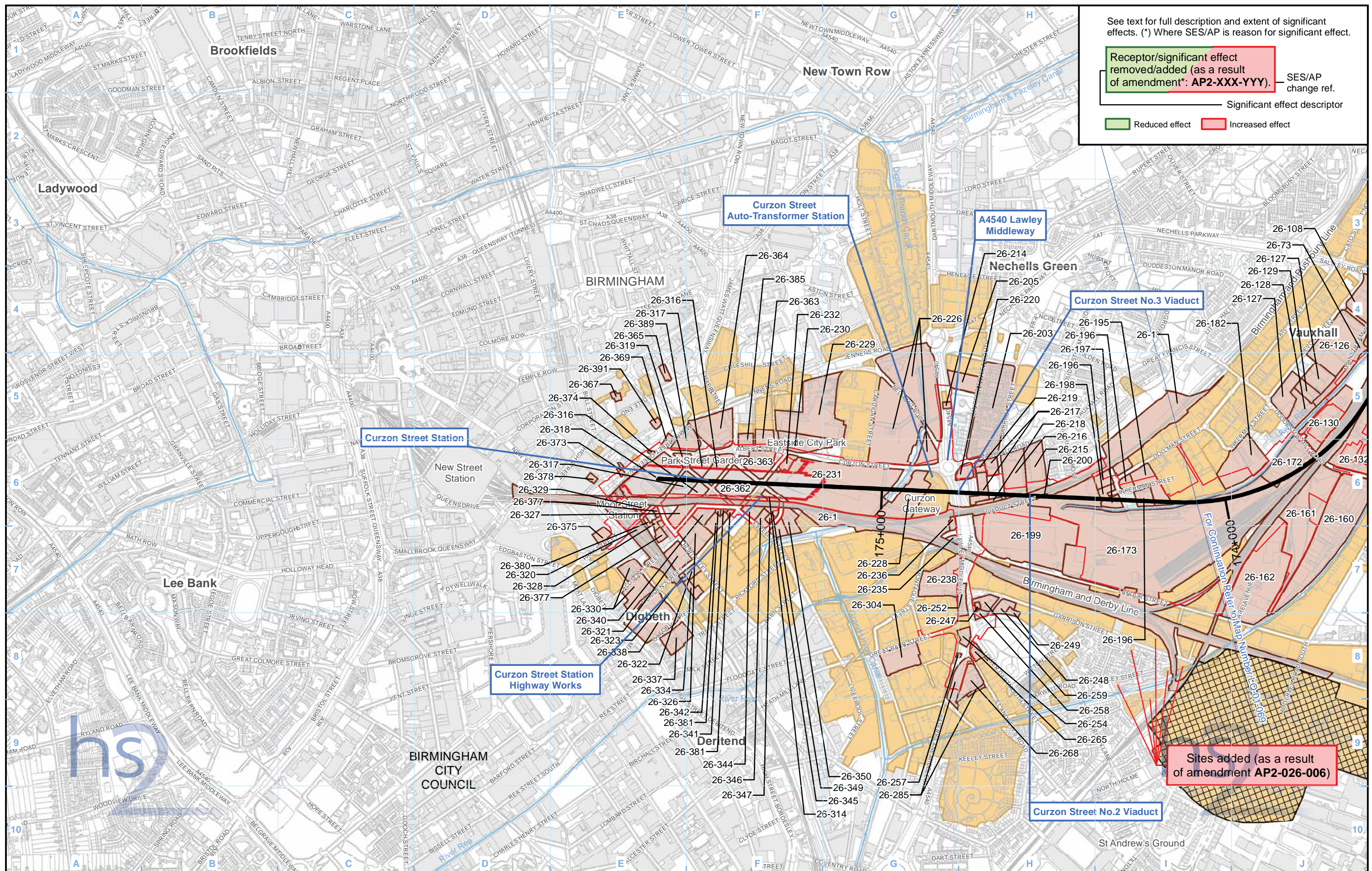
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Legend

Route in tunnel

Route on surface

Depot, station, headhouse or portal building

Land potentially required during construction

Community forum boundary

County boundary

District/Borough boundary

Watercourse

Water body

Woodland

Registered park or garden

Areas assessed as not posing a contaminative risk to the proposed scheme

Areas assessed as potentially posing a contaminative risk to the proposed scheme

Landfill site (historical or active)

Geo-conservation sites

Actual or potential mining/mineral exploitation area

26-126— Site No.

— CFA No.

Map Number

LQ-01-070

Map Name

Land Quality  
SES and AP2 ES

Community Forum Area CFA26:  
Washwood Heath to Curzon Street

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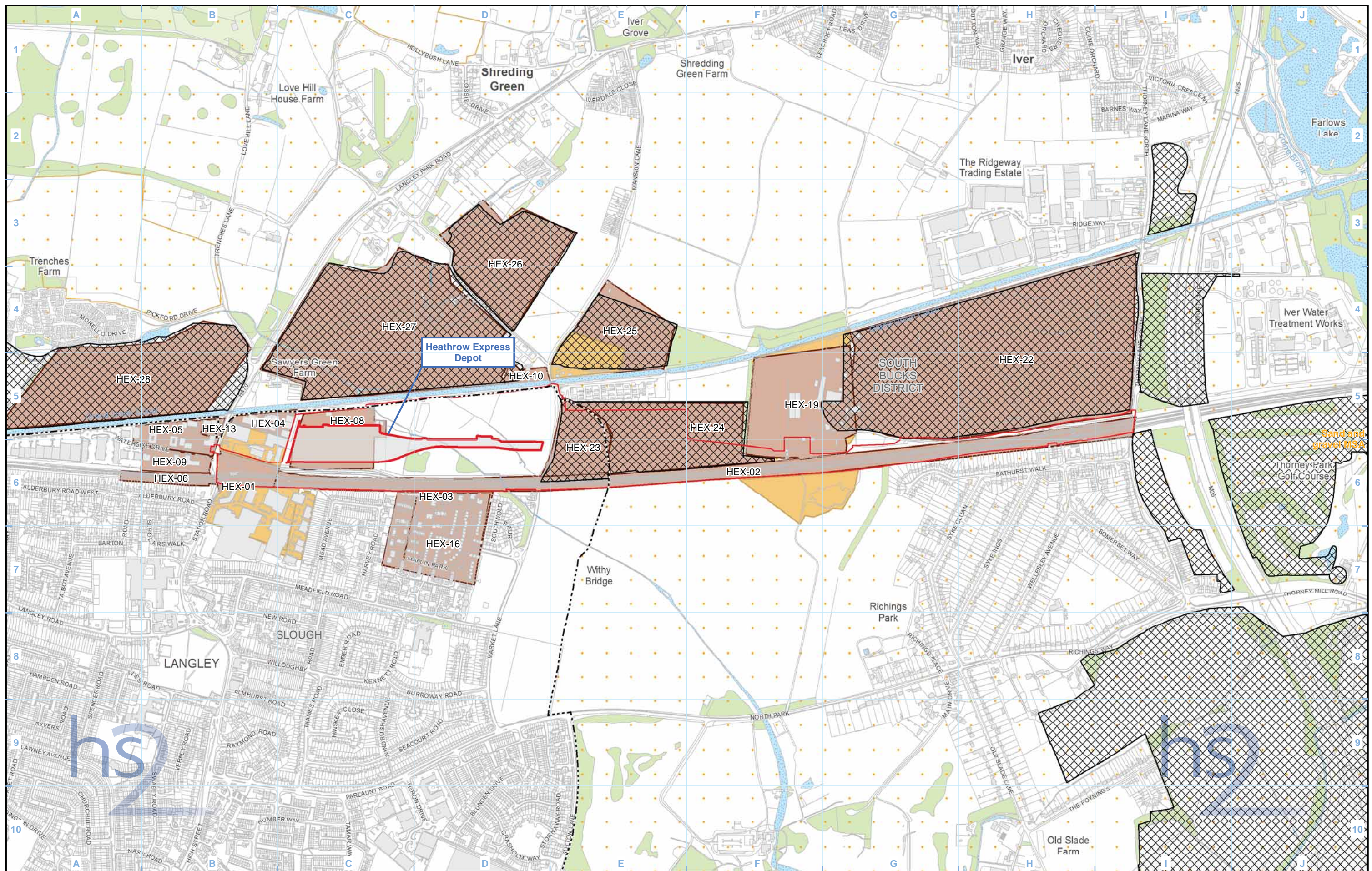


# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and  
Additional Provision 2 Environmental Statement

Volume 5 | Off Route | Proposed Site for Relocation of Heathrow Express (HEx) Depot  
LQ-01 – Land Quality





<b>Legend</b>		<b>Map Number</b> LQ-01-HEX	
Route in tunnel	Watercourse	Landfill site (historical or active)	<b>Map Name</b> <b>Land Quality SES and AP2 ES</b>
Route on surface	Water body	Geo-conservation sites	
Depot, station, headhouse or portal building	Woodland	Actual or potential mining/mineral exploitation area	<b>Off route:</b> Heathrow Express (HEX) Depot Relocation
Land potentially required during construction	Registered park or garden	Mineral safeguarding areas - sand and gravel	
Community forum boundary	Areas assessed as not posing a contaminative risk to the proposed scheme	26 - 126 Site No. CFA No.	 HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way. Registered in England. Registration number 06791686. Registered office: One Canada Square, London, E14 5AB. © Crown copyright and database rights 2015. Ordnance Survey Licence Number 100049190. <b>Doc Number:</b> C251-ETM-EV-MAP-010-001603-AP02-P01 <b>Date:</b> 17/06/15
County boundary	Areas assessed as potentially posing a contaminative risk to the proposed scheme		
District/Borough boundary			





