

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix EC-015-00000

Ecology and biodiversity

Ecological register of local level effects

MA01: Hough to Walley's Green

MA02: Wimboldsley to Lostock Gralam

MA03: Pickmere to Agden and Hulseheath

MA06: Hulseheath to Manchester Airport

MA07: Davenport Green to Ardwick

MA08: Manchester Piccadilly Station

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix EC-015-00000

Ecology and biodiversity

Ecological register of local level effects

MA01: Hough to Walley's Green

MA02: Wimboldsley to Lostock Gralam

MA03: Pickmere to Agden and Hulseheath

MA06: Hulseheath to Manchester Airport

MA07: Davenport Green to Ardwick

MA08: Manchester Piccadilly Station



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.

High Speed Two (HS2) Limited
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

A report prepared for High Speed Two (HS2) Limited:

ARUP+ ERM | FOSTER + PARTNERS | JACOBS
RAMBOLL | TYPSPA | COSTAIN

MWJV

Mott MacDonald | WSP

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2023, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v3.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3 **OGL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing 100% recycled fibre.

Contents

1 Introduction	2
1.1 Structure of this appendix	2
Part 1: Supplementary Environmental Statement 2	4
Part 2: Additional Provision 2 Environmental Statement	8
Tables	
Table 1: Summary of new or different local/parish level adverse effects identified through additional surveys	4
Table 2: Summary of additional local/parish level adverse effects arising from the construction/operation of the AP2 revised scheme	8

1 Introduction

1.1 Structure of this appendix

- 1.1.1 This report is an appendix to the ecological and biodiversity assessment which forms part of Volume 5 of the Supplementary Environmental Statement 2 (SES2) and Additional Provision 2 Environmental Statement (AP2 ES). This report covers the following community areas (CA):
- Hough to Walley's Green (MA01);
 - Wimboldsley to Lostock Gralam (MA02);
 - Pickmere to Agden and Hulseheath (MA03);
 - Hulseheath to Manchester Airport (MA06);
 - Davenport Green to Ardwick (MA07); and
 - Manchester Piccadilly Station (MA08).
- 1.1.2 This report is structured into two parts: Part 1 – SES2, and Part 2 – AP2 ES.
- 1.1.3 Part 1 of this appendix provides details of changes to local level effects in the SES2 since the production of the High Speed Two Ltd (HS2) High Speed Rail (Crewe – Manchester) Environmental Statement (ES) published in 2022¹ (the main ES) and the Supplementary Environmental Statement 1 (SES1) and Additional Provision 1 Environmental Statement (AP1 ES) also published in 2022².
- 1.1.4 Part 2 identifies local level effects which were not reported in the main ES or the SES1 and AP1 ES that are of relevance to the assessment of the AP2 revised scheme.
- 1.1.5 Supplementary environmental information considered within this appendix includes baseline ecological survey data that was not reported in the main ES or SES1 and AP1 ES, which is contained in the following SES2 and AP2 ES Background Information and Data (BID) ecological baseline data reports³:
- Ecological baseline data – amphibians (BID EC-007-00000 SES2 and AP2 ES);

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement*. Available online at: <https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement>.

² High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-1-and-additional-provision-1-environmental-statement>.

³ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement>.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

- Ecological baseline data – bats (BID EC-011-00000 SES2 and AP2 ES); and
 - Ecological baseline data – other (BID EC-017-00000 SES2 and AP2 ES), containing data relating to habitats, hedgerows, birds, ponds and canals, river habitat, otter and invertebrates.
- 1.1.6 Baseline badger data is provided in BID EC-014-00000 SES2 and AP2 ES BID and Ecology and biodiversity Map Book: Map Series EC-12C – Other Protected and Notable Species (3) that accompanies SES2 and AP2 ES. Note that baseline data for badger are not made publicly available due to the historic persecution of this species.
- 1.1.7 Maps relevant to this report are contained in the BID, Ecology and biodiversity Map Book: Map Series EC-02 (Phase 1 Habitat Survey), EC-04 (Amphibians), EC-05 (Bat – Roosts), EC-06 (Bat – Activity), EC-08 (Breeding Birds – Protected and Notable Species), EC-09 (Wintering Birds – Protected and Notable Species), EC-10 (Phase 2 Habitat Survey), EC-11 and EC-12 (Other Protected and Notable Species) that accompanies the SES2 and AP2 ES.
- 1.1.8 This report should be read in conjunction with the equivalent main ES Ecological register of local level effects reports (see Volume 5, Appendices: EC-015)⁴.
- 1.1.9 In order to differentiate between the original scheme and the subsequent changes, the following terms are used:
- ‘the original scheme’ – the Bill scheme submitted to Parliament in 2022, which was assessed in the main ES;
 - ‘the SES1 scheme’ – the original scheme with any changes described in SES1 that are within the existing powers of the Bill;
 - ‘the AP1 revised scheme’ – the original scheme as amended by SES1 changes and AP1 amendments;
 - ‘the SES2 scheme’ – the original scheme with any changes described in SES1 (submitted in July 2022) and the SES2; and
 - ‘the AP2 revised scheme’ – the original scheme as amended by SES1 and SES2 changes (as relevant) and AP2 amendments.

⁴ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement*, Volume 5, Appendices: EC-015. Available online at: <https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement>.

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement
SES2 and AP2 ES Volume 5, Appendix: EC-015-00000
Ecology and biodiversity
MA01, MA02, MA03, MA06, MA07 and MA08
Ecological register of local level effects

Part 1: Supplementary Environmental Statement 2

Table 1: Summary of new or different local/parish level adverse effects identified through additional surveys

CA	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
MA02	Bats	Bat assemblage associated with habitats between Broken Cross and Lostock Gralam	Construction	<p>The main ES and SES1 and AP1 ES reported a local/parish level effect from the permanent loss and fragmentation of foraging/commuting habitat as a result of construction of the original scheme. Further survey has identified an occasional roost used by soprano pipistrelle (<i>Pipistrellus pygmaeus</i>) 10m north of land required for the SES2 scheme; in addition, activity survey data gathered since the SES1 and AP1 ES has recorded increased common pipistrelle (<i>Pipistrellus pipistrellus</i>) and soprano pipistrelle activity.</p> <p>This is a different effect to that reported in the main ES and SES1 and AP1 ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA03	Birds	Breeding bird assemblage between Chapel Lane and Agden Bridge Farm	Construction	<p>The SES1 and AP1 ES reported a local/parish level effect resulting from loss and degradation of habitat used by breeding birds between Chapel Lane and Agden Bridge Farm.</p> <p>Additional breeding bird surveys between Chapel Lane and Agden Bridge Farm recorded a total of 37 species, including 18 notable species, within and adjacent to the land required for the construction of the SES2 scheme. Breeding territories of 13 species were recorded of which four are notable.</p> <p>This is a different effect to that reported in the SES1 and AP1 ES but does not change the scale of the effect, which remains</p>	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
				significant at the local/parish level.	
MA06	Woodland	Woodlands, each less than 1.5ha and none within wildlife site designations.	Construction	<p>The main ES reported a local level effect from the permanent loss of woodland habitat, comprising multiple smaller woodlands, each less than 1.5ha and none within wildlife designations.</p> <p>Additional surveys have confirmed that two of these woodlands qualify as habitat of principal importance:</p> <ul style="list-style-type: none"> • west bank of the River Bollin, north of the access road to Coppice Farm, covering 0.2 ha; and • south-west of Millington Hall, near to Agden Brook covering 0.02ha. <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA06	Aquatic Macro-invertebrates	Macro-invertebrate assemblage in Tributary of Timperley Brook 1	Construction	<p>Additional aquatic macro-invertebrate surveys at Tributary of Timperley Brook 1 during spring recorded 503 individual specimens from 11 taxa, whereas previous autumn surveys had recorded 919 individual specimens from four taxa. In both cases the results indicate an aquatic assemblage of 'low' conservation status.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA06	Terrestrial invertebrates	Invertebrate assemblage north of Millington Clough	Construction	<p>The main ES reported a local level effect from the permanent loss and degradation of habitat/habitat fragmentation upon the terrestrial invertebrate assemblage north of Millington Clough.</p>	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
				<p>Additional terrestrial invertebrate surveys have recorded 104 invertebrate species, including the alder leaf beetle ([Nationally Rare] (DD)).</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	
MA06	Badger	Population of badgers (<i>Meles meles</i>) at undisclosed locations in the Hulseheath to Manchester Airport area	Construction	<p>The main ES reported local level effects upon the badger population present in the Hulseheath to Manchester Airport area.</p> <p>Additional surveys have recorded a further main sett within the land required for construction of the SES2 scheme.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA07	Wintering birds	Wintering bird assemblage located at Withington and Didsbury Golf Course	Construction	<p>Additional wintering bird surveys at Withington and Didsbury Golf Course recorded 43 species including 20 notable species.</p> <p>There will be permanent loss and degradation of habitat used by wintering birds as a result of the SES2 scheme. This is a new effect, not previously reported, which is significant at the local/parish level.</p>	Yes
MA07	Aquatic Macro-invertebrates	Macro-invertebrate assemblage in Fairywell Brook	Construction	<p>Additional aquatic macro-invertebrate surveys at Fairywell Brook recorded 26 individual specimens from 13 taxa and an aquatic assemblage of 'moderate' conservation value, though overall abundance was low.</p> <p>There will be degradation of habitat occupied by the macro-invertebrate assemblage as a result of the SES2 scheme. This is</p>	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
				a new effect, not previously reported, which is significant at the local/parish level.	

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement
 SES2 and AP2 ES Volume 5, Appendix: EC-015-00000
 Ecology and biodiversity
 MA01, MA02, MA03, MA06, MA07 and MA08
 Ecological register of local level effects

Part 2: Additional Provision 2 Environmental Statement

Table 2: Summary of additional local/parish level adverse effects arising from the construction/operation of the AP2 revised scheme

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
MA01	AP2-001-003	Woodland	0.04ha of woodland along Old Mill Road and Congleton Road	Construction	<p>The main ES reported a local level effect resulting from the loss of woodlands, each less than 1.5ha and beyond wildlife designations.</p> <p>The AP2 revised scheme will result in the loss of a further 0.04ha from woodland along Old Mill Road and Congleton Road.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA03	AP2-003-002 AP2-003-003 AP2-003-004	Woodland	Woodlands, each less than 1.5ha and none within wildlife site designations	Construction	<p>The main ES reported a local level effect resulting from the loss of woodlands, each less than 1.5ha and beyond wildlife designations.</p> <p>As a result of the AP2 changes listed:</p> <ul style="list-style-type: none"> • 0.04ha of additional woodland will be lost from woodland adjacent to M6 Junction 19; • 0.1ha additional woodland will be lost from woodland near M6 Junction 20a; and • 0.4ha additional woodland will be lost from woodland near to, but beyond, 	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
					<p>Millington Clough ancient woodland.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	
MA06	AP2-006-006 AP2-006-014 AP2-006-018 AP2-006-020 AP2-006-022	Woodland	Woodlands, each less than 1.5ha and none within wildlife site designations	Construction	<p>The main ES reported a local level effect resulting from the loss of woodlands, each less than 1.5ha and beyond wildlife designations.</p> <p>As a result of the AP2 amendments listed:</p> <ul style="list-style-type: none"> • 0.2ha of additional woodland will be lost near to, but beyond, Ryecroft Covert ancient woodland and LWS; • 7.2ha of additional woodland will be lost along the M56 corridor; • additional woodland will be lost from woodland along Shay Lane and adjacent to Timperley Brook; • 0.04ha of additional woodland will be lost from woodland near Brooks Drive Culvert; and • 0.1ha of additional woodland will be lost from woodland near Davenport Green. <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
MA06	AP2-006-014	Grassland	Parcels of species-poor, semi-improved grassland and marshy grassland	Construction	<p>The main ES reported a local level effect resulting from the loss of 111.7ha species-poor, semi-improved grassland and marshy grassland.</p> <p>As a result of the AP2 change, 6.1ha of additional species poor semi-improved grassland will be lost along the M56 corridor.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA06	AP2-006-018	Aquatic Macro-invertebrates	Macro-invertebrate assemblage in Tributary of Timperley Brook 1	Construction	<p>The main ES reported a local level effect resulting from temporary loss and degradation of aquatic habitat.</p> <p>The AP amendment in this location involving the diversion of the watercourse alters the extent impacted, however will still impact the aquatic macro-invertebrates present.</p> <p>This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.</p>	Yes
MA06	AP2-006-023	Woodland	Semi-natural broadleaved and plantation woodland	Construction	<p>The main ES reported a local level effect resulting from the loss of woodlands, each less than 1.5ha and beyond wildlife designations.</p>	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
					As a result of the AP2 change, an additional 1.31 ha of broadleaved semi-natural and plantation woodland will be lost. This is a different effect to that reported in the main ES but does not change the scale of the effect, which remains significant at the local/parish level.	
MA07	AP2-007-002	Plantation woodland	A linear area of broadleaved plantation woodland along the side of the M56	Construction	Permanent loss of 0.09ha of broadleaved plantation woodland adjacent to the southbound M56 as a result of the AP change. This is a new effect that was not reported in the main ES. Due to the small amount of woodland loss involved it is significant at the local/parish level.	Yes
MA07	AP2-007-002	Grassland	An area of species poor semi-improved grassland adjacent to the M56	Construction	Permanent loss of 0.2ha of species poor semi-improved grassland adjacent to the M56 as a result of the AP change. This is a new effect that was not reported in the main ES, significant at the local/parish level.	Yes
MA07	AP2-007-006	Woodland	A small copse of semi-natural broadleaved woodland, adjacent to the Network Rail Manchester line	Construction	Permanent loss of 0.08ha of semi-natural broadleaved woodland adjacent to the existing railway line, opposite the Siemens depot as a result of the AP change. This is a new effect that was not reported in the main ES. Due to the small amount of	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
					woodland loss involved it is significant at the local/parish level.	
MA07	AP2-007-008	Woodland	A small copse of seminatural broadleaved woodland, within the AP2 amendment area	Construction	Permanent loss of 0.03ha of semi-natural broadleaved woodland as a result of the AP change. This is a new effect that was not reported in the main ES. Due to the small amount of woodland loss involved it is significant at the local/parish level.	Yes
MA07	AP2-007-003	Woodland	A small copse of broadleaved plantation woodland, within the AP2 amendment area	Construction	Permanent loss of 0.01ha of broadleaved plantation woodland adjacent to Palatine Road and the River Mersey as a result of the AP change. This is a new effect that was not reported in the main ES. Due to the small amount of woodland loss involved it is significant at the local/parish level.	Yes
MA08	AP2-008-001	Woodland	A small copse of broadleaved semi-natural woodland	Construction	Permanent loss of 0.04ha of semi-natural broadleaved woodland adjacent to Great Ancoats Street as a result of the AP change. This is a new effect that was not reported in the main ES. Due to the small amount of woodland loss involved it is significant at the local/parish level.	Yes
MA08	AP2-008-001	Grassland	An area of semi-improved grassland	Construction	Permanent loss of 0.1ha of semi-improved grassland adjacent to Great Ancoats Street as a result of the AP change.	Yes

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

SES2 and AP2 ES Volume 5, Appendix: EC-015-00000

Ecology and biodiversity

MA01, MA02, MA03, MA06, MA07 and MA08

Ecological register of local level effects

CA	AP amendment	Habitat, species or species group	Receptor/ location	Effect arising from construction or from operation	Description of effect prior to 'other mitigation'	Effect addressed by mitigation and/or compensation proposed? (Yes / No)
					This is a new effect not previously reported, significant at the local/parish level.	

High Speed Two (HS2) Limited

Two Snowhill

Snow Hill Queensway

Birmingham B4 6GA

Freephone: 08081 434 434

Minicom: 08081 456 472

Email: HS2enquiries@hs2.org.uk