

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix EC-015-0MA02

Ecology and biodiversity

MA02: Wimboldsley to Lostock Gralam

Ecological register of local level effects

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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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1 Introduction

- 1.1.1 This report is an appendix to the ecological assessment.
- 1.1.2 Table 1 provides a summary of the anticipated local/parish level adverse effects on ecological receptors arising from the construction and operation of the HS2 Phase 2b Proposed Scheme in the Wimboldsley to Lostock Gralam area (MA02).
- 1.1.3 This appendix should be read in conjunction with:
- Volume 2, Community Area (CA) reports;
 - Volume 3, Route-wide effects;
 - Volume 4, Off-route effects; and
 - Volume 5, Appendices.
- 1.1.4 See Volume 5, Appendix EC-001-00001 and the Ecology and Biodiversity Map Book (Map Series EC-01), for ecological designated sites, and Appendices EC-016-00001 to EC-016-00007 and EC-016-00009 for documents to inform Habitats Regulations Assessment screening and Appropriate Assessment.
- 1.1.5 In addition, the baseline data used for the ecological assessment is set out in Background Information and Data (BID) reports¹, (see BID EC-002-00001 to BID EC-013-00001) and the BID Ecology Map Books² (Map Series EC-02 and EC-04 to EC-12) showing habitats and species relevant to the Proposed Scheme. The full list of ecological BID reports is as follows:
- Ecological baseline data – Phase 1 Habitat Survey (BID EC-002-00001);
 - Ecological baseline data – protected and notable flora (BID EC-003-00001);
 - Ecological baseline data – National Vegetation Classification and ancient woodland (BID EC-004-00001);
 - Ecological baseline data – hedgerows (BID EC-005-00001);
 - Ecological baseline data – river habitat, river macrophyte, and ditch surveys (BID EC-006-00001);
 - Ecological baseline data – amphibian and pond and canal surveys (BID EC-007-00001);
 - Ecological baseline data – reptiles (BID EC-008-00001);
 - Ecological baseline data – breeding and wintering birds (BID EC-009-00001);
 - Ecological baseline data – otter and water vole (BID EC-010-00001);
 - Ecological baseline data – bats (BID EC-011-00001);

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data*, BID EC-002-00001 to BID EC-013-00001. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

² High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background information and Data, Ecology Map Book: Map Series EC-02 and EC-04 to EC-12*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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- Ecological baseline data – white-clawed crayfish and other invertebrates (BID EC-012-00001); and
- Ecological baseline data – fish (BID EC-013-00001).

1.1.6 Note that baseline data for badger is not made publicly available due to the current and historic persecution of this species (BID EC-014-00001).

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Table 1: Summary of local/parish level adverse effects arising from the construction and operation of the Proposed Scheme within MA02

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	Woodland	An unnamed woodland to the south-east of Whatcroft Hall.	Construction	Permanent loss of 390m ² (3%) of habitat as a result of construction of the Proposed Scheme.	Yes
MA02	Woodland	Thirty-five woodlands, each less than 1.5ha and none within wildlife designations.	Construction	Permanent loss of 4.1 ha (32%) of habitat as a result of construction of the Proposed Scheme.	Yes
MA02	Grassland	Marshy grassland, east of Clive, north of Yew Tree Farm.	Construction	Permanent loss of 1.5ha (100%) of habitat as a result of construction of the Proposed Scheme.	Yes
MA02	Grassland	Parcels of species-poor, semi-improved grassland, collectively covering an area of 91.4ha throughout the Wimboldsley to Lostock Gralam area, within land required for the Proposed Scheme.	Construction	Permanent loss of 91.4ha (100%) of habitat as a result of construction of the Proposed Scheme.	Yes
MA02	Watercourses	Unnamed tributaries of smaller watercourses in the Wimboldsley to Lostock Gralam area.	Construction	Permanent and temporary loss and degradation of habitat as a result of realignment or culverting of smaller watercourses during construction of the Proposed Scheme.	Yes
MA02	Amphibians	Populations of other amphibian species, including palmate newt (<i>Lissotriton helveticus</i>), smooth newt (<i>Lissotriton vulgaris</i>), common toad (<i>Bufo bufo</i>) and common frog (<i>Rana temporaria</i>), in the Wimboldsley to Lostock Gralam area.	Construction	Loss and fragmentation of breeding/foraging habitat and dispersal routes from construction activities.	Yes

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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	Loss and fragmentation of foraging/commuting habitat as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Wimboldsley and Stanthorne.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Wimboldsley and Stanthorne.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Broken Cross and Fieldhouse Farm.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Broken Cross and Fieldhouse Farm	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Wimboldsley Hall and Wimboldsley Grange.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding hobby (<i>Falco subbuteo</i>) between Wimboldsley Hall and Wimboldsley Grange.	Construction	Permanent loss and degradation of habitat used by breeding hobby as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Wimboldsley Hall and Wimboldsley Grange.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding hobby between Wimboldsley and Stanthorne.	Construction	Permanent loss and degradation of habitat used by breeding hobby as a result of construction of the Proposed Scheme.	Yes

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MA02	Birds	Breeding bird assemblage associated with habitats between Bostock House Farm and Pear Tree Farm Cottage.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Marshall's Gorse and High House.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Fieldhouse Farm and Pickmere.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Fieldhouse Farm and Pickmere.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Park Hall Farm and River Wheelock.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Greenheyes Farm and Davenham Road.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding bird assemblage associated with habitats between Winsford Industrial Estate and Bostock Hall.	Construction	Permanent loss and degradation of habitat used by breeding birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Wintering bird assemblage associated with habitats between Davenham Road and Cooke's Lane.	Construction	Permanent loss and degradation of habitat used by wintering birds as a result of construction of the Proposed Scheme.	Yes
MA02	Birds	Breeding kingfisher (<i>Alcedo atthis</i>) on the River Dane and Trent and Mersey Canal.	Construction	Permanent loss and degradation of habitat used by breeding kingfisher as a result of construction of the Proposed Scheme.	Yes

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MA02	Birds	Potential kingfisher populations Shropshire Union Canal.	Construction	Permanent loss and degradation of habitat potentially used by breeding kingfisher as a result of construction of the Proposed Scheme.	Yes
MA02	Fish	Fish assemblages in Puddinglake Brook, Gad Brook and Wade Brook.	Construction	Temporary loss and degradation of aquatic habitat where the Proposed Scheme crosses watercourses.	Yes
MA02	Terrestrial invertebrates	Invertebrate assemblage at Winnington and Peas Wood LWS.	Construction	Permanent loss and degradation of habitat used by terrestrial invertebrates as a result of construction and operation of the Proposed Scheme.	Yes
MA02	Terrestrial invertebrates	Invertebrate assemblage at Oak Wood.	Construction	Permanent loss and degradation of habitat used by terrestrial invertebrates as a result of construction and operation of the Proposed Scheme.	Yes
MA02	Terrestrial invertebrates	Invertebrate assemblage associated with habitats by the Trent and Mersey Canal north-east of Bostock Hall.	Construction	Permanent loss and degradation of habitat used by terrestrial invertebrates as a result of construction and operation of the Proposed Scheme.	Yes
MA02	Terrestrial invertebrates	Invertebrate assemblage associated with habitats by the Trent and Mersey Canal north of Whatcroft Hall.	Construction	Permanent loss and degradation of habitat used by terrestrial invertebrates as a result of construction and operation of the Proposed Scheme.	Yes
MA02	Aquatic invertebrates	Aquatic macro-invertebrate assemblages at Puddinglake Brook, Gad Brook, tributary of Gad Brook, Broken Cross Drains and Wade Brook.	Construction	Temporary loss and degradation of aquatic habitat where the Proposed Scheme crosses watercourses.	Yes

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MA02	Badger	Badger (<i>Meles meles</i>) populations at undisclosed locations in the Wimboldsley to Lostock Gramam area.	Construction and operation	Permanent loss and degradation of habitat / habitat fragmentation resulting from construction of the Proposed Scheme. Three main setts are present within land required for the construction of the Proposed Scheme. A further four main setts are present between 70-80m from land required for the Proposed Scheme. Land required for the Proposed Scheme includes pasture, arable, hedgerow and woodland habitats that form a foraging resource for badger social groups.	Yes
MA02	Reptiles	Potential small populations of common reptiles in the Wimboldsley to Lostock Gramam area.	Construction	Permanent loss and degradation of small areas of suitable habitat including field margins, edges of woodland and scrub habitat and isolated small patches of overgrown grassland as a result of construction of the Proposed Scheme.	Yes

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