



High Speed Rail (West Midlands - Crewe)

Environmental Statement

Volume 5: Technical appendices

CA4: Whitmore Heath to Madeley

Ecology register of local level effects (EC-016-004)



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Department
for Transport

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1 Introduction

- 1.1.1 This document is an Appendix to the ecological assessment. Table 1 provides a summary of anticipated local/parish level adverse effects on ecological receptors arising from the construction and operation of High Speed Rail (West Midlands – Crewe) for the Whitmore Heath to Madeley community area (CA4).
- 1.1.2 This document should be read in conjunction with:
- Volume 2, Community area reports;
 - Volume 3, Route-wide effects assessment;
 - Volume 4, Off-route effects assessment; and
 - Volume 5, Appendices.
- 1.1.3 See Volume 5, Appendix EC-001-000 and the Ecology Map Book (Map Series EC-01), for ecological designated sites, and Appendices EC-017-001 to EC-017-005 for Habitats Regulations Assessment screening reports.
- 1.1.4 In addition, the ecological baseline data used for the ecological assessment is set out in Background Information and Data (BID)¹, (see BID-EC-002-000 to BID-EC-014) and the BID Ecology Map Books (Map Series EC-02 to EC-12) showing habitats and species recorded along the proposed route. The full list of ecological baseline data reports is as follows:
- Ecological baseline data - phase 1 habitat survey (Background Information and Data: BID-EC-002-000);
 - Ecological baseline data - protected and or notable flora (Background Information and Data: BID-EC-003-000);
 - Ecological baseline data - national vegetation classification and ancient woodland (Background Information and Data: BID-EC-004-000);
 - Ecological baseline data - hedgerows (Background Information and Data: BID-EC-005-000);
 - Ecological baseline data - river habitat, river corridor, and ditch surveys (Background Information and Data: BID-EC-006-000);
 - Ecological baseline data - amphibian and pond surveys (Background Information and Data: BID-EC-007-000);
 - Ecological baseline data - reptiles (Background Information and Data: BID-EC-008-000);
 - Ecological baseline data - breeding and wintering birds (Background Information and Data: BID-EC-009-000);

¹ HS2 Ltd (2017), *High Speed Two (HS2) Phase 2a (West Midlands - Crewe), Background Information and Data*, www.gov.uk/hs2

- Ecological baseline data - otter and water vole (Background Information and Data: BID-EC-010-000);
- Ecological baseline data - hazel dormouse (Background Information and Data: BID-EC-011-000);
- Ecological baseline data - bats (Background Information and Data: BID-EC-012-000);
- Ecological baseline data - white clawed crayfish and other invertebrate (Background Information and Data: BID-EC-013-000); and
- Ecological baseline data - fish (Background Information and Data: BID-EC-014-000).

1.1.5 Note that baseline data for badger is not made publically available due to the historic persecution of this species.

Table 1: Summary of local/parish level adverse effects arising from the construction/operation of the Proposed Scheme within CA4

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)
CA4	Woodland	Unnamed strip of semi-natural broadleaved woodland at Meece Brook, located within the land required for the Proposed Scheme	Construction	Permanent loss of 0.6ha (100%) of lowland mixed deciduous woodland	Yes
CA4	Woodland	Unnamed semi-natural broadleaved woodland south of the A525 Newcastle Road	Construction	Permanent loss of 0.005ha (1.4%) of broadleaved woodland	Yes
CA 4	Woodland	Semi-natural broadleaved woodland at Whitmore Heath	Construction	Permanent loss of 0.2ha (2%) of lowland mixed deciduous woodland	Yes
CA4	Woodland	Area of semi- natural broad-leaved woodland surrounding Manor Cottages	Construction	Permanent loss of a small area 0.011ha (100%) of lowland mixed deciduous woodland	Yes
CA4	Woodland	Semi-natural broad-leaved woodland along either side of Manor Road, near Manor Cottages, where there is a large pond adjacent surrounding Manor Cottages	Construction	Permanent loss of a small area 0.3ha (100%)of lowland mixed deciduous woodland	Yes
CA4	Woodland	Small area of semi-natural broad-leaved woodland to the south-west corner of Hey House	Construction	Permanent loss of a small area 0.017ha (100%) of lowland mixed deciduous woodland	Yes
CA4	Woodland	Semi-natural woodland strip south of Bower End Lane, west of the West Coast Main Line (WCML)	Construction	Permanent loss of a small area 0.2ha (100%) of lowland mixed deciduous woodland	Yes
CA4	Woodland	Broadleaved woodland plantation south of the A525 near Bar Hill House	Construction	Permanent loss of a small area 0.34ha (68%) of plantation broadleaved woodland within the land required for the Proposed Scheme	Yes
CA4	Woodland	Small series of mixed deciduous broad-leaved woodland and plantation woodland within and immediately adjacent to the Proposed Scheme throughout Whitmore to Madley area	Construction	Permanent loss of 0.04ha of semi-natural mixed woodland, 0.2ha of plantation broadleaved woodland, 6.8ha of plantation mixed woodland and 6.1ha of plantation coniferous woodland	Yes

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)
CA4	Grassland	Small area of semi-improved acid grassland north of Barhill Wood	Construction	Degradation of parts of an acid grassland area of approximately 0.2ha within the land required for the Proposed Scheme north of Barhill Wood, through the use of this area for woodland habitat creation.	Yes
CA4	Grassland	Small areas of improved and semi-improved species poor grassland throughout the area	Construction	Permanent loss of improved and semi-improved grassland throughout the area as a result of the construction of the Proposed Scheme	Yes
CA4	Water bodies	Ponds throughout the Whitmore Heath to Madeley area that are found, following further survey, to not qualify as habitats of principal importance i.e. through presence of notable flora and fauna	Construction	Partial or complete loss of pond habitats to land required for construction of the Proposed Scheme	Yes
CA4	Bats	Assemblage of soprano pipsitrelle associated with habitat at Meece Brook	Construction	Permanent loss of roosts associated with the bat assemblage in Meece Brook area, located within the land required for the Proposed Scheme	Yes
CA4	Amphibians	Presence of other amphibian species including palmate newt, smooth newt, common toad and common frog throughout this area	Construction	Permanent loss of breeding habitat including the loss of waterbodies and suitable terrestrial habitat located within the land required for the Proposed Scheme	Yes
CA4	Birds	Breeding bird assemblage at Meece meadows	Construction	Temporary loss of habitat suitable for bird species, including ten notable breeding birds at this location during the construction of the Proposed Scheme and the Meece Brook viaduct	Yes

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)
CA4	Birds	Wintering bird assemblage at Meece meadows	Construction	Temporary loss of habitat suitable for bird species, including 20 notable wintering bird species at this location during the construction of the Proposed Scheme and the Meece Brook viaduct	Yes
CA4	Birds	Breeding bird assemblage at Whitmore Wood	Construction	Temporary loss of suitable habitat for bird assemblages including three notable breeding bird species at Whitmore Wood Ancient Woodland Inventory site and temporary disturbance to bird assemblage at this location during the construction of the Proposed Scheme	Yes
CA4	Birds	Wintering bird assemblage at Whitmore Wood	Construction	Temporary loss of suitable habitat for bird assemblages including 15 notable wintering bird species at Whitmore Wood Ancient Woodland Inventory site and temporary disturbance to bird assemblage at this location during the construction of the Proposed Scheme	Yes
CA4	Birds	Wintering bird assemblage at marshy grassland west of Whitmore Wood and the WCML	Construction	Temporary loss of suitable habitat for bird assemblages including two notable wintering bird species and temporary disturbance to bird assemblage at this location during the construction of the Proposed Scheme	Yes
CA4	Otter	Population of otter on the Meece Brook	Construction	Disturbance to otter populations during construction of the Meece Brook Viaduct	Yes
CA4	Otter	Population of otter on the River Lea	Construction	Disturbance to otter populations during construction of the River Lea Viaduct	Yes

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)
CA4	Water vole	Population of water vole on the Meece Brook	Construction	Disturbance to potential water vole populations during construction of the Meece Brook Viaduct	Yes
CA4	Water vole	Population of water vole on the River Lea	Construction	Disturbance to potential water vole populations during construction of the River Lea Viaduct.	Yes
CA4	Fish	Fish assemblage at Meece Brook, including roach, perch, three-spined stickleback and stone loach	Construction	Permanent loss of habitat and disturbance to populations in the river catchment where the Proposed Scheme crosses the Meece Brook. The scheme crosses with a viaduct and therefore small amounts of habitat will be lost during the meece brook realignment. Indirect effects will not be significant as they will be controlled through the implementation measures in the draft CoCP see Volume 5, Appendix CT-003-000	Yes
CA4	Fish	Fish assemblage at River Lea, no surveys undertaken but assumed local/parish assemblage present	Construction	Permanent loss of habitat and disturbance to populations in the river catchment. The scheme crosses with a viaduct and therefore small amounts of habitat will be lost during construction and realignment of River Lea tributaries. Indirect effects will not be significant as they will be controlled through the implementation measures in the draft CoCP see Volume 5, Appendix CT-003-000	Yes
CA4	Notable plant species	Survey results and desk study records identified bluebell within the land required for the Proposed Scheme at Checkley Lane, Whitmore Wood, near Manor Road Verges, woodland south of Randilow, hedgerow north of and woodland east of Grange Farm and hedgerow west of Moss	Construction	Permanent loss of bluebell throughout the area as a result of the construction of the Proposed Scheme Permanent loss of wood sorrel throughout the area as a result of the construction of the	Yes

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)
		House Field surveys identified wood sorrel within the land required for the Proposed Scheme at Whitmore Wood and at Hey Sprink Quaking grass - grassland east of Meece Brook Field scabious - grassland east of Meece Brook		Proposed Scheme Permanent loss of less than 1% of the county tetrad of quaking grass as a result if the construction of the Proposed Scheme Permanent loss of less than 1% of the county tetrad of field scabious as a result if the construction of the Proposed Scheme	
CA4	Badger	Populations of badger in the Whitmore Heath to Madley area	Construction	Permanent loss of five main setts located within the land required for the Proposed Scheme. Disturbance to setts recorded immediately adjacent to the proposed scheme is possible. Habitat loss will also result in the fragmentation of territories and loss of foraging and commuting areas	Yes
CA4	Polecat	Records of polecat 3km from Whitmore area. Possible presence of species within the area	Construction	Permanent loss of suitable habitat for these species within the land required for the the Proposed Scheme	Yes
CA4	Harvest mouse	Potential populations using suitable habitats present in the Whitmore Heath to Madeley area	Construction	Potential loss of suitable harvest mouse habitat located within the land required for the Proposed Scheme throughout the Whitmore to Madeley area	Yes
CA4	European hedgehog	Potential populations using suitable habitats present in the Whitmore Heath to Madeley area	Construction	Potential loss of suitable hedgehog habitat located within the Proposed Scheme throughout the Whitmore to Madeley area	Yes
CA4	Brown hare	Potential populations using suitable habitats present in the Whitmore Heath to Madeley area	Construction	Potential loss of suitable brown hare habitat located within the land required for the Proposed Scheme throughout the Whitmore to Madeley area	Yes

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)
CA ₄	Fallow deer	Areas around Whitmore provide habitat for local fallow deer populations	Operational	Risk of train strikes through the Whitmore area to fallow deer populations that are resident near to the operation of the Proposed Scheme.	Yes
CA ₄	Reptiles	Potential populations of common reptiles in the Whitmore Heath to Madeley area	Construction	Permanent loss of suitable reptile habitat including foraging and refuge habitat that will be directly lost as a result of construction of the Proposed Scheme	Yes
CA ₄	Terrestrial invertebrates	<p>Invertebrate assemblage at Whitmore Wood. Surveys incomplete but habitat present are suitable for notable invertebrate species and therefore presence of notable species is assumed</p> <p>Invertebrate assemblage around west of Barhill Wood ancient woodland. In the absence of survey data desk records of common species of Aculeates (bees and wasps) (Staffordshire BAP invertebrate group) were identified</p>	Construction	<p>Permanent loss of habitat suitable to support protected and notable terrestrial invertebrate species as a result of the construction of the Proposed Scheme through Whitmore Wood ancient woodland site</p> <p>Permanent loss of habitat suitable for protected and notable invertebrate species as a result of the construction of the Proposed Scheme at Barhill Wood ancient woodland site and surrounding grassland area</p>	Yes

2 References

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