

High Speed Two Phase 2a (West Midlands - Crewe)

Background Information and Data

Ecology and biodiversity
Ecological baseline data - breeding and wintering birds
(BID-EC-009-000)

July 2017



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1 Introduction

- 1.1.1 This report presents a summary of the ecological baseline data relating to breeding and wintering birds.
- 1.1.2 Ecological baseline data has been collected for the assessment of High Speed Rail (West Midlands – Crewe). The Proposed Scheme will pass through the following community areas (CA):
 - CA1: Fradley to Colton;
 - CA2: Colwich to Yarlet;
 - CA3: Stone and Swynnerton;
 - CA4: Whitmore Heath to Madeley; and
 - CA₅: South Cheshire.
- 1.1.3 This report should be read in conjunction with the Breeding Bird Map Series EC-08 and the Wintering Bird Map Series EC-09 in the Background Information and Data, Ecology Map Books.
- 1.1.4 The following baseline ecology reports can also be referred to:
 - 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-oo6-ooo);
 - 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-8-000);
 - 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-12-000);

- 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.
- 1.1.6 The ecological assessment is detailed in the High Speed Rail (West Midlands Crewe) Environmental Statement (ES):
 - Volume 2, Community area reports;
 - Volume 3, Route-wide effects;
 - Volume 4, Off-route effects; and
 - Volume 5, Appendices.

¹ HS₂ Ltd (2017), High Speed Rail (West Midlands – Crewe) Environmental Statement (ES), www.gov.uk/hs₂

2 Breeding birds

2.1 Methodology

- 2.1.1 Details of the standard methodology utilised for breeding bird surveys are provided in the Technical Note HS2 Ecological Surveys: Field Survey Methods and Standards (FSMS) included in the Scope and Methodology Report (SMR) Addendum².
- 2.1.2 The approach taken to sampling the route section for the presence of breeding birds in order to assess potential receptors and likely significant effects, was based on:
 - desk study records relating to breeding birds for the area within 2km of the land required for the construction of the Proposed Scheme obtained from the county biological records centres (Staffordshire Ecological Record³ and rECOrd⁴ for Cheshire);
 - records of breeding birds for the area within 2km of the land required for the construction of the Proposed Scheme included in the West Midland Bird Club Annual Report 2013⁵ and Cheshire and Wirral Bird Report 2014⁶; and
 - interpretation of aerial photography and Phase 1 surveys to identify habitats that may be particularly suitable for breeding birds and nest sites for species subject to special protection (e.g. barn owl), which were then subject to a ground-truthing walkover survey.

General breeding bird survey

2.1.3 Survey visits to each site were carried out between April and July 2016, depending on when access was first granted. Visits to a site were undertaken at least one week apart as required by the methodology. Table 1 summarises the 10 sites where breeding bird surveys were undertaken. This information is cross-referenced to the accompanying Ecology Map Series EC-08.

² Environmental Impact Assessment Scope and Methodology Report Addendum, Volume 5: Appendix CT-001-002

³ Staffordshire Ecological Record, *The Ecological Database for Staffordshire*, http://www.staffsecology.org.uk/html2015/index.php?title=Main_Page

⁴ rECOrd, Local Biological Records Centre serving Cheshire, http://www.record-lrc.co.uk/

⁵ West Midland Bird Club (2016), *The Birds of Staffordshire, Warwickshire, Worcestershire and the West Midlands 2013: West Midland Bird Report Annual Report No.80.* Healeys Print Group, Ipswich

⁶ Cheshire and Wirral Ornithological Society (2016), *Cheshire and Wirral Bird Report 2014*, Swallowtail Print Ltd, Norwich

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 ${\sf Table \ 1: Summary \ of \ general \ breeding \ bird \ surveys \ undertaken \ within \ the \ West \ Midlands \ to \ Crewe \ area}$

Ecology survey code	Survey site name	Location	Centroid OS grid reference	Habitat types included in survey	Survey date(s)	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
000-BB1- 193001	Pipe Ridware Floodplain	East of Pipe Ridware	SK103174	Grassland, arable land, hedgerows, ditches and watercourses	11 July 2016.	CA1	Partly within
000-BB1- 201001	Moreton Meadows	North-east of Bishton	SK032224	Grassland, hedgerows/tree- lines, ponds and watercourse	13 May 2016; 27 June 2016; 12 July 2016; and 20 July 2016.	CA1	Partly within
000-BB1- 204001	Tithebarn Farm	East of Great Haywood	SK009231	Woodland, grassland and arable land	27 June 2016; 12 July 2016; and 26 July 2016.	CA ₂	Partly within
000-BB1- 205001	Great Haywood Floodplain	North-west of Great Haywood	SJ994239	Grassland, arable land, hedgerows and watercourses	27 July 2016.	CA ₂	Partly within
000-BB1- 208001	Upper Hanyards	West of Ingestre	SJ971239	Woodland, grassland and arable land	27 June 2016; and 26 July 2016.	CA ₂	Partly within
000-BB1- 223001	Highlow Meadows	South-east of Swynnerton	SJ86 ₇₃₄₇	Woodland, grassland, arable land, hedgerows and watercourse	26 April 2016; 13 May 2016; 25 May 2016; 28 June 2016; and 7 July 2016.	CA ₃	Partly within
000-BB1- 226001	Swynnerton Heath	North-west of Swynnerton	SJ843367	Woodland, grassland, arable land and hedgerows	29 June 2016; 7 July 2016; 13 July 2016; and 26 July 2016.	CA ₃	Partly within
000-BB1- 230001	Meece Meadows	South of Whitmore	SJ809401	Woodland, grassland, hedgerows, watercourse and ponds	28 April 2016; 13 May 2016; 26 May 2016; and 25 July 2016	CA4	Partly within
000-BB1- 233001	Whitmore Wood	North of Whitmore Heath	SJ792417	Woodland	26 July 2016	CA ₄	Partly within
000-BB1- 240001	Checkley	West of Wrinehill	SJ740469	Woodland, grassland, arable land, hedgerows and ponds	11 May 2016; 26 May 2016; 30 June 2016; 11 July 2016; and 25 July 2016.	CA ₅	Partly within

Barn owl survey

2.1.4 Single survey visits for breeding barn owls (*Tyto alba*) were undertaken between July and August 2016 for the six sites listed in Table 2. This information is cross referenced to the accompanying Map Series EC-08.

Table 2: Summary of breeding barn owl surveys undertaken within the West Midlands to Crewe area

Ecology survey code	Location	Potential nest site	Survey date	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
000-BB3- 195001	South of Blithbury	Nest box in a barn	30 August 2016	CA1	50m south-west
000-BB3- 196001	West of Blithbury	Trunk cavity in a black poplar	23 August 2016	CA1	Within
000-BB3- 201001	North-east of Bishton	Trunk cavity in a pedunculate oak	22 August 2016	CA1	Within
000-BB3- 202001	North-east of Bishton	Nest box on an ash	8 August 2016	CA ₂	100m south-west
000-BB3- 231001	South of Whitmore	Trunk cavity in a crack willow	13 July 2016	CA4	20m west
000-BB3- 239001	South of Wrinehill	Trunk cavity in a crack willow	12 July 2016	CA4	150m east

2.2 Evaluation

- 2.2.1 Notable bird species are those which are listed on:
 - Annex 1 of the Birds Directive⁷;
 - Schedule 1 of the Wildlife and Countryside Act 1981⁸;
 - Section 41 of the National Environment and Rural Communities Act 2006⁹ (species of principal importance);
 - Staffordshire Local Biodiversity Action Plan¹⁰;
 - Cheshire Local Biodiversity Action Plan¹¹;
 - Birds of Conservation Concern¹² (Red¹³ and Amber¹⁴ species); and

⁷ Directive 2009/147/EC on the Conservation of Wild Birds. European Parliament and Council, Brussels

⁸ Wildlife and Countryside Act 1981 (England and Wales) (as amended), Chapter 69. Her Majesty's Stationery Office, London

⁹ Natural Environment and Rural Communities Act 2006, Chapter 16. Her Majesty's Stationery Office, London

¹⁰ Staffordshire Biodiversity Partnership, Staffordshire Biodiversity Action Plan, http://www.sbap.org.uk/

¹¹ Cheshire Wildlife Trust, Cheshire Biodiversity Action Plan, http://www.cheshirewildlifetrust.org.uk/node/7348

¹² Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015), *Birds of Conservation Concern* 4: the population status of birds in the United Kingdom. Channel Islands and the Isle of Man. British Birds. 108, 708–746

^{4:} the population status of birds in the United Kingdom, Channel Islands and the Isle of Man, British Birds, 108, 708-746

13 Red List criteria for breeding birds are those species which have experienced a severe decline of more than 50% of population and / or range over the last 25 years

¹⁴ Amber List criteria for breeding birds are those species which have experienced a moderate decline of between 25% and 49% of population and / or range over the last 25 years

- the West Midland Bird Club and Cheshire and Wirral Ornithological Society annual bird reports regional breeding status ('very rare', 'rare', 'scarce' or 'uncommon').
- Breeding birds of county importance in Staffordshire were determined in accordance with the Staffordshire Wildlife Trust's selection criteria for sites of county biological importance (Webb $et \, al_1 \, 2014^{15}$). The selection criteria for breeding birds are those sites that:
 - regularly support a breeding species which is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended);
 - regularly support a breeding species which is county rare or scarce;
 - support a significant colony of a breeding species;
 - support a significant assemblage of breeding waders; and/or
 - support a significant assemblage of bird species that exceed threshold index values for woodland, upland habitats, heathland, lowland wet grassland, fen and open water.
- 2.2.3 Breeding birds of county importance in Cheshire were determined in accordance with the Cheshire Wildlife Trust's selection criteria for sites of county biological importance (Giles *et al*, 2014¹⁶). The selection criteria for breeding birds are those sites that:
 - regularly support a breeding county rare or scarce species which is listed in Table 7 of the guidelines;
 - support an established colony of a breeding species which is listed in Table 8 of the guidelines;
 - support an assemblage of 10 breeding species which are listed in Table 7 and 9
 of the guidelines; and/or
 - support ≥0.5% of the British breeding population of any species.
- 2.2.4 Records of species that are of more than local/parish value are summarised for each site in the Baseline and provided in the accompanying Map Series EC-08.

2.3 Deviations, constraints and limitations

- 2.3.1 No deviations to the standard methodology were applied, and subject to the constraints and limitations identified in the following section, all surveys were conducted as per the standard methodology provided in the Technical Note HS2 Ecological Surveys: Field Survey Methods and Standards (FSMS) included in the Scope and Methodology Report (SMR) Addendum.
- 2.3.2 Surveys undertaken were limited to locations where landowner permission had been obtained.

¹⁵ Webb, J., Lawley, S., Cadman, D., Slawson, C., Smith, J. and Weightman, J. (2014), *Guidelines for the selection of sites of county biological importance in Staffordshire*, Staffordshire Wildlife Trust, Stafford

¹⁶ Giles, R. (2014), Local Wildlife Site Selection Criteria for the Cheshire Region, Cheshire Wildlife Trust, Malpas

- 2.3.3 Survey access to a few sites was intermittent because of restrictions imposed by the landowners. Consequently, the survey visits were limited to late-June and July after young birds from first broods had fledged at these sites.
- 2.3.4 Land access was not available during the appropriate survey period at eight sites that were selected for notable species and/or assemblages of breeding birds. These sites are listed in Table 3.

Table 3: Summary of locations within the West Midlands to Crewe area where requirement for general breeding bird survey was identified but no access was available

Survey site name	Location	Centroid OS grid reference	Habitat types	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
Pipe Ridware Floodplain 1321, 1625, 1635, 1675, 1685, 1695, 1750 and 1785	East of Pipe Ridware	SK103174	Grassland, arable land, hedgerows, ditches and watercourses	CA1	Partly within
Great Haywood Floodplain 4620, 4820, 4960, 5400, 5820, 6060 and 6465	North- west of Great Haywood	SJ994239	Grassland, arable land, hedgerows and watercourses	CA ₂	Partly within
Lionlodge 4801, 4955 and 5051	South- east of Ingestre	SJ987240	Woodland and saltmarsh	CA ₂	Partly within
Upper Hanyards 5001, 5340, 5510, 5646, 5655 and 5985	West of Ingestre	SJ971239	Woodland, grassland and arable land	CA ₂	Partly within
Pire Hill 9528	West of Stone	SJ896313	Woodland, grassland, hedgerows and watercourses	CA ₃	Partly within
Whitmore 11065, 11445, 11480 and 11482	North of Madeley Park	SJ792417	Woodland, grassland, hedgerows and watercourses	CA4	Partly within
Land south of Randilow Farm 12510	South- west of Wrinehill	SJ751462	Grassland, arable land and hedgerows	CA ₅	Partly within
Chorlton Heath 14275, 14277, 14985, 15020, 15021, 15325 and 15370	East of Hough	SJ720510	Grassland, arable land, hedgerows and ponds	CA ₅	Partly within

2.3.5 Land access was not available during the appropriate survey period at 12 sites identified as having potential to provide a nest sites for barn owl or hobby. These sites are listed in Table 4.

Table 4: Summary of locations within the West Midlands to Crewe area where the requirement for Schedule 1 species survey was identified but access was not available for survey 17

Location	Species and potential nest site	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
South-west of Fradley Junction	Barn owl. Building	CA1	Within
South-west of King's Bromley	Hobby. Pedunculate oaks around the flooded gravel pit and on an island	CA1	150m north-east
Pipe Ridware	Barn owl. Church	CA1	120m south-west
West of Blithbury	Barn owl. Black poplar trunk cavity	CA1	Within
West of Blithbury	Barn owl. Tree	CA1	Within
North-west of Blithbury	Barn owl. Tree	CA1	120m east
North-east of Bishton	Barn owl. Farm buildings and mature trees	CA1	50m south-west
North of Tixall	Hobby. Crack willows on an island	CA ₂	150m south-west
South-west of Stone	Barn owl. Farm buildings	CA ₃	Adjacent
South-east of Swynnerton	Barn owl. Farm buildings	CA ₃	Adjacent
South of Whitmore	Barn owl. Crack willow trunk cavity	CA4	Within
South-west of Madeley	Barn owl. Building	CA ₄	Within
South of Wrinehill	Barn owl. Crack willow trunk cavity	CA ₄	150m east
East of Hough	Barn owl. Stable	CA ₅	Within
	Hobby. Scattered pedunculate oaks		
Basford	Barn owl. Farm buildings	CA ₅	20m west

2.4 Baseline

2.4.1 The following survey sites are ordered south to north through CA areas.

¹⁷ Barn owl nests and barn owl nest boxes were not been included

Fradley to Colton (CA1)

Pipe Ridware Floodplain (000-BB1-193001)

General breeding bird survey

2.4.2 One survey visit was carried out at Pipe Ridware Floodplain on 11 July 2016. Breeding territories of 20 species were recorded, of which six are notable. Table 5 provides a summary of the notable species estimated number of breeding territories.

Table 5: Notable birds recorded during the surveys at Pipe Ridware Floodplain (000-BB1-193001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	1	1(1)
Mistle thrush	Turdus viscivorus	Red List	1	1(1)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire Local Biodiversity Action Plan (LBAP) and Amber List	1	1(1)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	1	1(1)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	CA1	1(1)
Reed bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	CA1	1(1)

- 2.4.3 Based on these results, this site is of local/parish value for breeding birds that are characteristic of farmland habitats.
- 2.4.4 The Staffordshire Barn Owl Action Group monitor a nest box on a crack willow (SK097175) at Trentside Meadows Local Wildlife Site (LWS), which is a regular barn owl breeding site. Barn owl is of county importance.

Bentley Hall Farm (000-BB3-xx2105)

Barn owl survey

2.4.5 The landowner has seen barn owls at this site. None were seen during a vantage point survey on 30 August 2016.

Blithbury Road (000-BB3-xx2380)

Barn owl survey

2.4.6 A tree with a trunk cavity suitable for use as a barn owl nest tree was located but no barn owls or signs of presence were recorded at or near this tree during a vantage point survey at dusk on 23 August 2016.

Moreton Meadows (000-BB1-201001)

General breeding bird survey

2.4.7 Four survey visits were carried out at Moreton Meadows between 13 May and 20 July 2016. A total of 30 species of bird were recorded during the surveys at Moreton Meadows of which 11 are notable. Table 6 provides a summary of notable species recorded.

Table 6: Notable birds recorded during the surveys at Moreton Meadows (000-BB1-201001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Mallard	Anas platyrhynchos	Amber List	1	1(4)
Stock dove	Columba oenas	Amber List	1	1(4)
Tawny owl	Strix aluco	Amber List	1	1(4)
Kestrel	Falco tinnunculus	Amber List	1	2(4)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	1	1(4)
Willow warbler	Phylloscopus trochilus	Amber List	1	2(4)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	2	2(4)
Meadow pipit	Anthus pratensis	Amber List	1	1(4)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	2(4)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	3	2(4)
Reed Bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	1	2(4)

2.4.8 Based on these results, this site is of local/parish value for breeding birds that are characteristic of farmland habitats.

Moreton Meadows (000-BB3-xx3346)

Barn owl survey

- 2.4.9 A tree with a trunk cavity suitable for use as a barn owl nest tree was located but no barn owls or signs of presence were recorded at or near this tree during a vantage point survey at dusk on 22 August 2016.
- 2.4.10 The Staffordshire Barn Owl Action Group confirm the presence of a barn owl breeding pair at this site.

CA1 Summary

- 2.4.11 The breeding bird populations recorded at Pipe Ridware Floodplain and Moreton Meadows are of local/parish importance.
- 2.4.12 Barn owl breeding territories have been confirmed to be present within the Fradley to Colton area. The presence of a barn owl breeding pair is of county importance.

Colwich to Yarlet (CA₂)

Moreton Grange (000-BB3-xx3470)

Barn owl survey

2.4.13 A barn owl was recorded at this site on 8 August 2016.

Tithebarn Farm (000-BB1-204001)

General breeding bird survey

2.4.14 Three survey visits were carried out at Tithebarn Farm between 27 June and 26 July 2016. A total of 37 species of bird were recorded during the surveys at Tithebarn Farm of which 11 are notable. Table 7 provides a summary of notable species recorded.

Table 7: Notable birds recorded during the surveys at Tithebarn Farm (000-BB1-204001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Stock dove	Columba oenas	Amber List	2	2(3)
Kestrel	Falco tinnunculus	Amber List	1	2(3)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	4	3(3)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	3	3(3)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	2	3(3)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Tree sparrow	Passer montana	Species of Principal Importance, Staffordshire LBAP and Red List	1	2(3)
Yellow wagtail	Motacilla flava ssp. flavissima	Species of Principal Importance and Red List	2	2(3)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	2(3)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	2	2(3)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	1	2(3)
Reed bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	1	2(3)

2.4.15 Based on these results, this site scores 10 on breeding bird assemblage for wet grassland (yellow wagtail, skylark and reed bunting). However, there is no wet grassland at this survey site and the aforementioned species were recorded nesting in arable crops. For this reason the breeding bird assemblage at this site is of district/borough value.

Great Haywood floodplain (000-BB1-205001)

General breeding bird survey

2.4.16 One survey visit was carried out at Great Haywood Floodplain on 27 July 2016. A total of 31 species of bird were recorded during the survey at Great Haywood Floodplain of which nine are notable. Table 8 provides a summary of notable species recorded.

Table 8: Notable birds recorded during the surveys at Great Haywood Floodplain (000-BB1-205001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Mallard	Anas platyrhynchos	Amber List	1	1(1)
Stock dove	Columba oenas	Amber List	1	1(1)
Kestrel	Falco tinnunculus	Amber List	1	1(1)
Starling	Sturnus vulgaris	Species of Principal Importance and Red	1	1(1)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
		List		
Song thrush	Turdus philomelos	Species of Principal Importance, Staffordshire LBAP and Red List	1	1(1)
Mistle thrush	Turdus viscivorus	Red List	1	1(1)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	3	1(1)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	1	1(1)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	2	1(1)

2.4.17 Based on these results, this site is of local/parish value for breeding birds that area characteristic of farmland habitats.

Upper Hanyards (000-BB1-208001)

General breeding bird survey

2.4.18 Two survey visit were carried out at Upper Hanyards between 27 June and 26 July 2016. A total of 15 species of bird were recorded during the surveys at Upper Hanyards of which three are notable. Table 9 provides a summary of notable species recorded.

Table 9: Notable birds recorded during the surveys at Upper Hanyards (000-BB1-208001)

Common name	Scientific name	Status Estimated number of breeding territories		Number of survey visits during which the species were recorded (out of the total)
Stock dove	Columba oenas	Amber List	1	2(2)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	1	2(2)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	1	2(2)

2.4.19 Based on these results, this site is of local/parish value for breeding birds that area characteristic of farmland habitats.

CA₂ Summary

- 2.4.20 The breeding bird populations recorded at Tithebarn Farm, Great Haywood Floodplain and Upper Hanyards are of local/parish importance.
- A barn owl breeding territory is confirmed to be present within the Colwich to Yarlet area. The presence of a barn owl breeding pair is of county importance.
- 2.4.22 According to the West Midland Bird Club, pair of curlew are regularly seen during the breeding season in the fields south of Lionlodge Covert. The presence of a curlew breeding pair is of county importance.

Stone and Swynnerton (CA₃)

Highlow Meadows (000-BB1-223001)

General breeding bird survey

2.4.23 Five survey visits were carried out at Highlow Meadows between 26 April and 7 July 2016. A total of 34 species of bird were recorded during the surveys at Highlow Meadows of which nine are notable. Table 10 provides a summary of notable species recorded.

Table 10: Notable birds recorded during the surveys at Highlow Meadows (000-BB1-223001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Stock Dove	Columba oenas	Amber List	1	2(5)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	Importance, Staffordshire LBAP and	
Song Thrush	Turdus philomelos	Species of Principal 3 Importance and Red List		4(5)
Mistle Thrush	Turdus viscivorus	Red List	1	3(5)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	3	5(5)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	affordshire LBAP and	
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	mportance, Staffordshire LBAP and	
Yellowhammer	Emberiza citrinella	Species of Principal 4 Importance, Staffordshire LBAP and Red List		5(5)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Reed Bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	2	4(5)

2.4.24 Based on these results, this site is of local/parish value for breeding birds that are characteristic of farmland habitats.

Swynnerton Heath (000-BB1-226001)

General breeding bird survey

2.4.25 Four survey visits were carried out at Swynnerton Heath between 29 June and 26 July 2016. A total of 34 species of bird were recorded during the surveys at Swynnerton Heath of which six are notable. Table 11 provides a summary of notable species recorded.

Table 11: Notable birds recorded during the surveys at Swynnerton Heath (000-BB1-226001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	Importance, Staffordshire LBAP and	
Song Thrush	Turdus philomelos	Species of Principal Importance and Red List	Importance and Red	
Dunnock	Prunella modularis	Species of Principal 4 Importance and Amber List		4(4)
House Sparrow	Passer domesticus	Species of Principal 15 Importance, Staffordshire LBAP and Red List		4(4)
Linnet	Linaria cannabina	Species of Principal 1 Importance, Staffordshire LBAP and Red List		2(4)
Yellowhammer	Emberiza citrinella	Species of Principal 2 2 Importance, Staffordshire LBAP and Red List		2(4)

2.4.26 Based on these results, this site is of local/parish value for breeding birds that are characteristic of farmland habitats.

CA₃ Summary

- The breeding bird populations recorded at Highlow Meadows and Swynnerton Heath are of local/parish importance.
- 2.4.28 The Staffordshire Barn Owl Action Group confirm the presence of a barn owl breeding pair within Stone and Swynnerton area. The presence of a barn owl breeding pair is of county importance.

Whitmore Heath to Madeley (CA₄)

Meece Meadows (000-BB1-230001)

General breeding bird survey

2.4.29 Four survey visits were carried out at Meece Meadows between 28 April and 25 July 2016. A total of 31 species of bird were recorded during the surveys at Meece Meadows of which 10 are notable. Table 12 provides a summary of notable species recorded.

Table 12: Notable birds recorded during the surveys at Meece Meadows (000-BB1-230001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Stock Dove	Columba oenas	Amber List	1	2(4)
Kingfisher	Alcedo atthis	Schedule 1 and Amber List	1	1(4)
Willow Warbler	Phylloscopus trochilus	Amber List	1	3(4)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	1	3(4)
Song Thrush	Turdus philomelos	Species of Principal Importance and Red List	1	3(4)
Mistle Thrush	Turdus viscivorus	Red List	1	2(4)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	3(4)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	4	3(4)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	2	3(4)
Reed Bunting	Emberiza schoeniclus	Species of Principal 2 Importance, Staffordshire LBAP and Amber List		3(4)

2.4.30 Based on these results, the site is of local/parish value for breeding birds that are characteristic of farmland and watercourse habitats.

Meece Meadows (000-BB3-x10770)

Barn owl survey

2.4.31 A tree with a trunk cavity suitable for use as a barn owl nest tree was located but no barn owls or signs of presence were recorded at or near this tree during a vantage point survey at dusk on 13 July 2016.

Whitmore Wood (000-BB1-233001)

General breeding bird survey

2.4.32 One survey visit was carried out at Whitmore Wood on 26 July 2016. A total of 21 species of bird were recorded during the surveys at Whitmore Wood of which three are notable. Table 13 provides a summary of notable species recorded.

Table 13: Notable birds recorded during the surveys at Whitmore Wood (000-BB1-233001)

Common name	Scientific name	Status	Estimated number of breeding territories	
Song Thrush	Turdus philomelos	Species of Principal Importance and Red List	2	1(1)
Spotted Flycatcher	Muscicapa striata	Species of Principal Importance and Red List	1	1(1)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	1	1(1)

2.4.33 Based on the survey results, this site is of local/parish value for breeding birds that are characteristic of woodland habitat.

Wrinehill Mill (000-BB3-x12655)

Barn owl survey

2.4.34 A tree with a trunk cavity suitable for use as a barn owl nest tree was located but no barn owls or signs of presence were recorded at or near this tree during a vantage point survey at dusk on 12 July 2016.

CA4 Summary

- 2.4.35 The breeding bird populations recorded at Meece Meadows and Whitmore Wood are of local/parish importance.
- 2.4.36 Suitable barn owl habitat is present throughout the area. The presence of a barn owl breeding pair (if confirmed) would be of county importance.

South Cheshire (CA₅)

Checkley (000-BB1-240001)

General breeding bird survey

2.4.37 Five survey visits were carried out between 11 May and 25 July 2016. A total of 41 species of bird were recorded during the surveys at Checkley of which 12 are notable. Table 14 provides a summary of notable species recorded.

Table 14: Notable birds recorded during the surveys at Checkley (000-BB1-240001)

Common name	Scientific name	Status	Estimated number of breeding territories	Number of survey visits during which the species were recorded (out of the total)
Mallard	Anas platyrhynchos	Amber List	1	2(4)
Skylark	Alauda arvensis	Species of Principal Importance, Cheshire LBAP and Red List	5	4(4)
Willow Warbler	Phylloscopus trochilus	Amber List	2	3(4)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	2	4(4)
Song Thrush	Turdus philomelos	Species of Principal Importance, Cheshire LBAP and Red List	3	3(4)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	3	4(4)
House Sparrow	Passer domesticus	Species of Principal Importance, Cheshire LBAP and Red List	16	4(4)
Yellow Wagtail	Motacilla flava ssp. flavissima	Species of Principal Importance and Red List	2	3(4)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Cheshire LBAP and Amber List	1	1(4)
Linnet	Linaria cannabina	Species of Principal Importance, Cheshire LBAP and Red List	3	3(4)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Cheshire LBAP and Red List	1	2(4)
Reed Bunting	Emberiza schoeniclus	Species of Principal Importance, Cheshire LBAP and Amber List	2	3(4)

2.4.38 Based on these results, this site supports breeding yellow wagtail which is of county importance. The breeding bird assemblage includes 10 breeding species that are listed

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in the Cheshire Wildlife Trust Local Wildlife Site selection criteria, so again is of county value on this basis also.

CA5 Summary

- 2.4.39 The breeding bird population recorded at Checkley is of local/parish importance.
- 2.4.40 Suitable barn owl habitat is present throughout the area. The presence of a barn owl breeding pair (if confirmed) would be of county importance.

3 Wintering birds

3.1 Methodology

- Details of the standard methodology utilised for wintering bird surveys are provided in the Technical Note HS2 Ecological Surveys: Field Survey Methods and Standards (FSMS) included in the Scope and Methodology Report (SMR) Addendum.
- 3.1.2 The approach taken to sampling the route section for the presence of wintering birds, in order to assess potential receptors and likely significant effects, was based on:
 - desk study records relating to wintering birds for the area within 2km of the land required for the construction of the Proposed Scheme, obtained from the county biological records centres (Staffordshire Ecological Record and rECOrd for Cheshire);
 - records of wintering birds for the area within 2km of the land required for the construction of the Proposed Scheme included in the West Midland Bird Club Annual Report 2013¹⁸ and Cheshire and Wirral Bird Report 2014¹⁹; and
 - interpretation of aerial photography and Phase 1 surveys to identify habitats that may be suitable for wintering birds, which were then subject to a ground-truthing walkover survey.
- 3.1.3 Monthly survey visits to each site were undertaken between December 2015 and March 2016 and also between October and December 2016, depending on when access was first obtained to the site. Each site was therefore surveyed on up to seven occasions.
- 3.1.4 Table 15 summarises the 11 sites where surveys for wintering birds were undertaken. This information is cross-referenced to the accompanying Ecology Map Series EC-09.

Table 15: Summary of wintering bird field surveys undertaken within the West Midlands to Crewe area

Ecology survey code	Survey site name	Location	Centroid OS grid reference	Habitat types included in survey	Survey date(s)	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
000-WB1- 193001	Pipe Ridware Floodplain	East of Pipe Ridware	SK103175	Grassland, arable land, hedgerows, ditches and watercourses	23 December 2015; 26 January 2016; 18 February 2016; 24 March 2016; and 14 December 2016.	CA1	Partly within

¹⁸ West Midland Bird Club (2016), The Birds of Staffordshire, Warwickshire, Worcestershire and the West Midlands 2013: West Midland Bird Report Annual Report No.80. Healeys Print Group, Ipswich

¹⁹ Cheshire and Wirral Ornithological Society (2016), *Cheshire and Wirral Bird Report 2014*. Swallowtail Print Ltd, Norwich

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Ecology survey code	Survey site name	Location	Centroid OS grid reference	Habitat types included in survey	Survey date(s)	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
000-WB1- 201001	Moreton Meadows	North-east of Colwich	SK033226	Grassland, hedgerows/tre e-lines, ponds and watercourse	23 December 2015; 26 January 2016; 18 February 2016; 24 March 2016; and 14 December 2016.	CA1	Partly within
000-WB1- 204001	Tithebarn Farm	East of Great Haywood	SK009231	Woodland, grassland and arable land	20 October 2016; and 25 November 2016.	CA ₂	Partly within
000-WB1- 206001	Great Haywood Floodplain	North-west of Great Haywood	SJ994240	Grassland, arable land, hedgerows and watercourses	23 December 2015; 28 January 2016; 19 February 2016; and 29 March 2016.	CA ₂	Partly within
000-WB1- 208001	Upper Hanyards	West of Ingestre	SJ964244	Woodland, grassland and arable land	20 October 2016; and 25 November 2016.	CA ₂	Partly within
000-WB1- 223001	Highlow Meadows	South-east of Swynnerton	SJ86 ₇₃₄ 8	Woodland, grassland, arable land, hedgerows and watercourse	23 December 2015; 28 January 2016; 19 February 2016; 29 March 2016; 21 October 2016; 24 November 2016; and 13 December 2016.	CA ₃	Partly within
000-WB1- 228001	Hatton Common	North of Upper Hatton	SJ830381	Woodland, grassland, arable land and hedgerows	21 October 2016; 24 November 2016; and 13 December 2016.	CA ₃	Partly within
000-WB1- 231001	Meece Meadows	South of Whitmore	SJ808402	Woodland, grassland, hedgerows, watercourse and ponds	23 December 2015; 28 January 2016; 19 February 2016; 29 March 2016; 19 October 2016; 24 November 2016; 14 December 2016.	CA4	Partly within
000-WB1- 233001	Whitmore	North of Madeley Park	SJ787419	Woodland, grassland, hedgerows and watercourses	23 December 2015; 29 January 2016; 23 February 2016; 1 April 2016; 19 October 2016; and 14 December 2016.	CA4	Partly within
000-WB1- 240001	Checkley	West of Wrinehill	SJ740469	Woodland, grassland, arable land, hedgerows and ponds	23 December 2015; 29 January 2016; 23 February 2016; and 1 April 2016.	CA ₅	Partly within

Ecology survey code	Survey site name	Location	Centroid OS grid reference	Habitat types included in survey	Survey date(s)	CA	Approximate distance from the land required for the construction of the Proposed Scheme (m)
000-WB1- 245001	Chorlton Heath	East of Hough	SJ720510	Grassland, arable land, hedgerows and ponds	17 October 2016; 24 November 2016; and 15 December 2016.	CA ₅	Partly within

Evaluation 3.2

- Notable bird species are those which are listed on: 3.2.1
 - Annex 1 of the Birds Directive²⁰;
 - Schedule 1 of the Wildlife and Countryside Act 1981²¹;
 - Section 41 of the National Environment and Rural Communities Act 2006²² (species of principal importance);
 - Staffordshire Local Biodiversity Action Plan²³;
 - Cheshire Local Biodiversity Action Plan²⁴;
 - Birds of Conservation Concern²⁵ (Red²⁶ and Amber²⁷ species); and
 - the West Midland Bird Club and Cheshire and Wirral Ornithological Society annual bird report regional wintering status ('very rare', 'rare', 'scarce' or 'uncommon').
- Wintering birds of county importance in Staffordshire were determined in accordance 3.2.2 with the Staffordshire Wildlife Trust's selection criteria for sites of county biological importance (Webb et al, 2014²⁸). For wetlands, the selection criteria for wintering birds are those sites that:
 - regularly support more than 0.5% of the British non-breeding population of any wildfowl or wading bird species; and/or
 - support a significant assemblage of wintering wildfowl.

²⁰ Directive 2009/147/EC on the Conservation of Wild Birds. European Parliament and Council, Brussels

²¹ Wildlife and Countryside Act 1981 (England and Wales) (as amended), Chapter 69. Her Majesty's Stationery Office, London

²² Natural Environment and Rural Communities Act 2006, Chapter 16. Her Majesty's Stationery Office, London

²³ Staffordshire Biodiversity Partnership, <u>Staffordshire Biodiversity Action Plan</u>, <u>http://www.sbap.org.uk/</u>

²⁴ Cheshire Wildlife Trust, *Cheshire Biodiversity Action Plan*, http://www.cheshirewildlifetrust.org.uk/node/7348

²⁵ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015), Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man, British Birds, 108, 708-746

Red List criteria for breeding birds are those species which have experienced a severe decline of more than 50% of population and / or range over

the last 25 years

Amber List criteria for breeding birds are those species which have experienced a moderate decline of between 25% and 49% of population and / or range over the last 25 years

²⁸ Webb, J., Lawley, S., Cadman, D., Slawson, C., Smith, J. and Weightman, J. (2014), Guidelines for the selection of sites of county biological importance in Staffordshire, Staffordshire Wildlife Trust, Stafford

- 3.2.3 Wintering birds of county importance in Cheshire were determined in accordance with the Cheshire Wildlife Trust's selection criteria for sites of county biological importance (Giles *et al*, 2014²⁹). The selection criteria for wintering birds are those sites that:
 - regularly support a wintering county rare or scarce species which is listed in Table 7 of the guidelines; and/or
 - regularly support a wintering population which is listed in Table 8 of the guidelines.
- Records of notable species that are of more than local/parish value are summarised for each site in the Baseline and provided in the accompanying Map Series EC-09.

3.3 Deviations, constraints and limitations

- 3.3.1 No deviations to the standard methodology were applied and, subject to the constraints and limitations identified in the following section, all surveys were conducted as per the standard methodology provided in the Technical Note HS2 Ecological Surveys: Field Survey Methods and Standards (FSMS) included in the Scope and Methodology Report (SMR) Addendum.
- 3.3.2 Surveys undertaken were limited to locations where landowner permission had been obtained.
- 3.3.3 Survey access to one site was intermittent because of restrictions imposed by the landowner. At other sites, access to certain land parcels within them was intermittent because of similar restrictions imposed, which necessitated more than five survey visits to ensure full coverage of the sites.
- During the winters of 2015-2016 and in late 2016, each site was subject to at least two survey visits.

3.4 Baseline

3.4.1 The following survey sites are ordered south to north through CA areas.

Fradley to Colton (CA1)

Pipe Ridware Floodplain (000-WB1-193001)

3.4.2 Five survey visits were carried out at Pipe Ridware Floodplain between 23 December 2015 and 24 March 2016 and a further visit on 14 December 2016. A total of 47 species of bird were recorded during the surveys at Pipe Ridware Floodplain of which 22 are notable. Table 16 provides a summary of notable species recorded.

²⁹ Giles, R. (2014), Local Wildlife Site Selection Criteria for the Cheshire Region, Cheshire Wildlife Trust, Malpas

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Table 16: Notable wintering bird survey records from Pipe Ridware Floodplain (000-WB1-193001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period		
Mute swan	Cygnus olor	Amber List	37	5(5)	
Mallard	Anas platyrhynchos	Amber List	18	5(5)	
Golden plover	Pluvialis apricaria	Annex 1	15	1(5)	
Lapwing	Vanellus vanellus	Species of Principal Importance, Staffordshire LBAP and Red List	111	1(5)	
Snipe	Gallinago gallinago	Staffordshire LBAP and Amber List	10	3(5)	
Black-headed gull	Chroicocephalus ridibundus	Amber List	13	5(5)	
Tawny owl	Strix aluco	Amber List	1	1(5)	
Kestrel	Falco tinnunculus	Amber List	1	1(5)	
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	14	5(5)	
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	15	5(5)	
Fieldfare	Turdus pilaris	Schedule 1 and Red List	30	3(5)	
Redwing	Turdus iliacus	Schedule 1 and Red List	10	3(5)	
Mistle thrush	Turdus viscivorus	Red List	1	3(5)	
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	4	5(5)	
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	8	5(5)	
Tree sparrow	Passer montana	Species of Principal Importance, Staffordshire LBAP and Red List	2	1(5)	
Meadow pipit	Anthus pratensis	Amber List	5	5(5)	
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	1(5)	

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)	
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List		2(5)	
Lesser redpoll	Acanthis cabaret	Species of Principal Importance and Red List	nportance and Red		
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	2	3(5)	
Reed bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	1	3(5)	

3.4.3 Based on these results, the wintering bird assemblage recorded at Pipe Ridware Floodplain is of local/parish importance. No species of more than local/parish value was recorded.

Moreton Meadows (000-WB1-201001)

3.4.4 Five survey visits were carried out at Moreton Meadows between 23 December 2015 and 24 March 2016 and a further visit on 14 December 2016. A total of 33 species of bird were recorded during the surveys at Moreton Meadows of which 12 are notable. Table 17 provides a summary of notable species recorded.

Table 17: Notable wintering bird survey records from Moreton Meadows (000-WB1-201001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Wigeon	Anas penelope	Amber List	50	2(5)
Mallard	Anas platyrhynchos	Amber List	2	2(5)
Stock dove	Columba oenas	Amber List	2	1(5)
Kestrel	Falco tinnunculus	Amber List	1	1(5)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	50	1(5)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	30	2(5)
Redwing	Turdus iliacus	Schedule 1 and Red List	60	2(5)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	1	1(5)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	16	3(5)
Grey wagtail	Motacilla cinerea	Red List	2	2(5)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	1(5)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	1	1(5)

3.4.5 The wintering bird assemblage recorded at Moreton Meadows is of local/parish importance. No species of more than local/parish value was recorded.

CA1 Summary

3.4.6 The wintering bird assemblages recorded at Pipe Ridware Floodplain and Moreton Meadows are of local/parish importance and no species of higher value were recorded.

Colwich to Yarlet (CA2)

Tithebarn Farm (000-WB1-204001)

3.4.7 Two survey visits were carried out Tithebarn Farm between 20 October and 25 November 2016. A total of 32 species of bird were recorded during the surveys at Tithebarn Farm of which nine are notable. Table 18 provides a summary of notable species recorded.

Table 18: Notable wintering bird survey records from Tithebarn Farm (000-WB1-204001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Stock dove	Columba oenas	Amber List	3	2(2)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	6	2(2)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	62	2(2)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	25	1(2)
Redwing	Turdus iliacus	Schedule 1 and Red List	3	2(2)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Mistle thrush	Turdus viscivorus	Red List	2	2(2)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	2(2)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	6	2(2)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	2(2)

3.4.8 Based on these results, the wintering bird assemblage recorded at Tithebarn Farm is of local/parish importance. No species of more than local/parish value was recorded.

Great Haywood floodplain (000-WB1-206001)

3.4.9 Four survey visits were carried out at Great Haywood Floodplain between 23

December 2015 and 29 March 2016. A total of 39 species of bird were recorded during the surveys at Great Haywood Floodplain of which 13 are notable. Table 19 provides a summary of notable species recorded.

Table 19: Notable wintering bird survey records from Great Haywood Floodplain (000-WB1-206001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Mute swan	Cygnus olor	Amber List	2	4(4)
Mallard	Anas platyrhynchos	Amber List	7	4(4)
Lapwing	Vanellus vanellus	Species of Principal Importance, Staffordshire LBAP and Red List	127	1(4)
Green sandpiper	Tringa ochropus	Schedule 1, Amber List and 'uncommon'	1	1(4)
Black-headed gull	Chroicocephalus ridibundus	Amber List	58	4(4)
Kestrel	Falco tinnunculus	Amber List	1	2(4)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	5	2(4)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	1	1(4)
Mistle thrush	Turdus viscivorus	Red List	1	1(4)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	3(4)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	6	2(4)
Grey wagtail	Motacilla cinerea	Red List	2	3(4)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	3	2(4)

3.4.10 Based on these results, the wintering bird assemblage recorded at Great Haywood Floodplain is of local/parish importance. No species of more than local/parish value was recorded.

Upper Hanyards (000-WB1-208001)

3.4.11 Two survey visits were carried out at Upper Hanyards between 20 October and 25 November 2016. A total of 31 species of bird were recorded during the surveys at Upper Hanyards of which 10 are notable. Table 20 provides a summary of notable species recorded.

Table 20: Notable wintering bird survey records from Upper Hanyards (000-WB1-208001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Stock dove	Columba oenas	Amber List	16	2(2)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	6	2(2)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	66	2(2)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	18	2(2)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	1	1(2)
Redwing	Turdus iliacus	Schedule 1 and Red List	2	1(2)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	2(2)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	52	2(2)
Tree sparrow	Passer montana	Species of Principal Importance, Staffordshire LBAP and Red List	4	2(2)
Meadow pipit	Anthus pratensis	Amber List	10	2(2)

3.4.12 Based on these results, the wintering bird assemblage recorded at Upper Hanyards is of local/parish importance. No species of more than local/parish value was recorded.

CA2 Summary

3.4.13 The wintering bird assemblages recorded at Tithebarn Farm, Great Haywood Floodplain and Upper Hanyards are of local/parish importance and no species of higher value were recorded.

Stone and Swynnerton (CA₃)

Highlow Meadows (000-WB1-223001)

3.4.14 Seven survey visits were carried out at Highlow Meadows between 23 December 2015 and 29 March 2016 and also between 21 October and 13 December 2016. A total of 40 species of bird were recorded during the surveys at Highlow Meadows of which 15 are notable. Table 21 provides a summary of notable species recorded.

Table 21: Notable wintering bird survey records from Highlow Meadows (000-WB1-223001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Mallard	Anas platyrhynchos	Amber List	3	2(7)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	2	5(7)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	47	5(7)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	42	4(7)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	3	3(7)
Redwing	Turdus iliacus	Schedule 1 and Red List	28	4(7)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	3	6(7)
House sparrow	Passer domesticus	Species of Principal Importance, Staffordshire LBAP and Red List	5	3(7)
Grey wagtail	Motacilla cinerea	Red List	1	2(7)
Meadow pipit	Anthus pratensis	Amber List	2	2(7)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Staffordshire LBAP and Amber List	2	4(7)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	48	5(7)
Lesser redpoll	Acanthis cabaret	Species of Principal Importance and Red List	2	1(7)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Staffordshire LBAP and Red List	4	5(7)
Reed bunting	Emberiza schoeniclus	Species of Principal Importance, Staffordshire LBAP and Amber List	1	2(7)

3.4.15 Based on these results, the wintering bird assemblage recorded at Highlow Meadows is of local/parish importance. No species of more than local/parish value was recorded.

Hatton Common (000-WB1-228001)

3.4.16 Three survey visits were carried out at Hatton Common between 21 October and 13 December 2016. A total of 31 species of bird were recorded during the surveys at Hatton Common of which 9 are notable. Table 22 provides a summary of notable species recorded.

Table 22: Notable wintering bird survey records from Hatton Common (000-WB1-228001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Stock dove	Columba oenas	Amber List	10	1(3)
Skylark	Alauda arvensis	Species of Principal Importance, Staffordshire LBAP and Red List	54	3(3)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	50	3(3)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	2	2(3)
Redwing	Turdus iliacus	Schedule 1 and Red List	60	3(3)
Mistle thrush	Turdus viscivorus	Red List	1	1(3)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	2(3)
Meadow pipit	Anthus pratensis	Amber List	2	3(3)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	2	1(3)

3.4.17 Based on these results, the wintering bird assemblage recorded at Hatton Common is of local/parish importance. No species of more than local/parish value was recorded.

CA₃ Summary

3.4.18 The wintering bird assemblages recorded at Highlow Meadows and Hatton Common are of local/parish importance and no species of higher value were recorded.

Whitmore Heath to Madeley (CA4)

Meece Meadows (000-WB1-231001)

3.4.19 Seven survey visits were carried out at Meece Meadows between 23 December 2015 and 29 March 2016 and also between 19 October and 14 December 2016. A total of 36 species of bird were recorded during the surveys at Meece Meadows of which 20 are notable. Table 23 provides a summary of notable species recorded.

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Table 23: Notable wintering bird survey records from Meece Meadows (000-WB1-231001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Teal	Anas crecca	Amber List	25	2(7)
Mallard	Anas platyrhynchos	Amber List	2	2(7)
Lapwing	Vanellus vanellus	Species of Principal Importance, Staffordshire LBAP and Red List	302	5(7)
Snipe	Gallinago gallinago	Staffordshire LBAP and Amber List	11	3(7)
Black-headed gull	Chroicocephalus ridibundus	Amber List	134	6(7)
Lesser black-backed gull	Larus fuscus	Amber List	151	3(7)
Herring gull	Larus argentatus ssp. argenteus	Species of Principal Importance and Red List	36	2(7)
Stock dove	Columba oenas	Amber List	6	2(7)
Kestrel	Falco tinnunculus	Amber List	1	2(7)
Skylark	Alauda arvensis	Species of Principal Importance, LBAP and Red List	7	6(7)
Starling	Sturnus vulgaris	Species of Principal Importance and Red List	8	3(7)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	28	5(7)
Song thrush	Turdus philomelos	Species of Principal Importance and Red List	3	2(7)
Redwing	Turdus iliacus	Schedule 1 and Red List	18	5(7)
Mistle thrush	Turdus viscivorus	Red List	1	1(7)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	6	6(7)
Tree sparrow	Passer montana	Species of Principal Importance, LBAP and Red List	6	3(7)
Meadow pipit	Anthus pratensis	Amber List	5	6(7)
Linnet	Linaria cannabina	Species of Principal Importance, Staffordshire LBAP and Red List	5	2(7)

3.4.20 Based on these results, the wintering bird assemblage recorded at Meece Meadows is of local/parish importance. No species of more than local/parish value was recorded.

Whitmore (000-WB1-233001)

3.4.21 Six survey visits were carried out at Whitmore between 23 December 2015 and 1 April 2016 and also between 19 October and 14 December 2016. A total of 32 species of bird were recorded during the surveys at Whitmore of which 15 are notable. Table 24 provides a summary of notable species recorded.

Table 24: Notable wintering bird survey records from Whitmore (000-WB1-233001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Mallard	Anas platyrhynchos	Amber List	2	3(6)
Oystercatcher	Haematopus ostralegus	Amber List	1	1(6)
Lapwing	Vanellus vanellus	Species of Principal Importance, LBAP and Red List	294	2(6)
Snipe	Gallinago gallinago	Staffordshire LBAP and Amber List	34	2(6)
Kestrel	Falco tinnunculus	Amber List	1	2(6)
Skylark	Alauda arvensis	Species of Principal Importance, LBAP and Red List	1	3(6)
Starling	Sturnus vulgaris	Species of Principal Importance, Cheshire LBAP and Red List	52	2(6)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	26	4(6)
Redwing	Turdus iliacus	Schedule 1 and Red List	44	4(6)
Mistle thrush	Turdus viscivorus	Red List	1	1(6)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	6(6)
House sparrow	Passer domesticus	Species of Principal Importance, LBAP and Red List	4	6(6)
Grey wagtail	Motacilla cinerea	Red List	1	2(6)
Meadow pipit	Anthus pratensis	Amber List	1	3(6)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, LBAP and Amber List	2	1(6)

3.4.22 Based on these results, the wintering bird assemblage recorded at Whitmore is of local/parish importance. No species of more than local/parish value was recorded.

CA4 Summary

The wintering bird assemblages recorded at Meece Meadows and Whitmore are of local/parish importance and no species of higher value were recorded.

South Cheshire (CA₅)

Checkley (000-WB1-240001)

Four survey visits were carried out at Checkley between 23 December 2015 and 1 April 2016. A total of 25 species of bird were recorded during the surveys at Checkley of which 11 are notable. Table 25 provides a summary of notable species recorded.

Table 25: Notable wintering bird survey records from Checkley (000-WB1-240001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Shelduck	Tadorna tadorna	Amber List	2	1(4)
Teal	Anas crecca	Amber List	5	2(4)
Mallard	Anas platyrhynchos	Amber List	25	4(4)
Snipe	Gallinago gallinago	Amber List	2	2(4)
Skylark	Alauda arvensis	Species of Principal Importance, Cheshire LBAP and Red List	2	4(4)
Starling	Sturnus vulgaris	Species of Principal Importance, Cheshire LBAP and Red List	12	2(4)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	24	2(4)
Song thrush	Turdus philomelos	Species of Principal Importance, Cheshire LBAP and Red List	1	1(4)
Redwing	Turdus iliacus	Schedule 1 and Red List	4	2(4)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	2	3(4)
Linnet	Linaria cannabina	Species of Principal Importance, Cheshire LBAP and Red List	18	1(4)

3.4.25 Based on these results, the wintering bird assemblage recorded at Checkley is of local/parish importance. No species of more than local/parish value was recorded.

Chorlton Heath (000-WB1-245001)

3.4.26 Three survey visits were carried out at Chorlton Heath between 17 October and 15 December 2016. A total of 37 species of bird were recorded during the surveys at Chorlton Heath of which 22 are notable. Table 26 provides a summary of notable species recorded.

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Table 26: Notable wintering bird survey records from Chorlton Heath (000-WB1-245001)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Teal	Anas crecca	Amber List	10	1(3)
Little egret	Egretta garzetta	'Uncommon'	1	1(3)
Lapwing	Vanellus vanellus	Species of Principal Importance, Cheshire LBAP and Red List	2	1(3)
Green sandpiper	Tringa ochropus	Schedule 1, Amber List and 'uncommon'	1	1(3)
Snipe	Gallinago gallinago	Amber List	49	1(3)
Black-headed gull	Chroicocephalus ridibundus	Amber List	3	2(3)
Stock dove	Columba oenas	Amber List	8	1(3)
Barn owl	Tyto alba	Schedule 1 and Cheshire LBAP	2	1(3)
Skylark	Alauda arvensis	Species of Principal Importance, Cheshire LBAP and Red List	41	3(3)
Starling	Sturnus vulgaris	Species of Principal Importance, Cheshire LBAP and Red List	72	3(3)
Fieldfare	Turdus pilaris	Schedule 1 and Red List	55	3(3)
Song thrush	Turdus philomelos	Species of Principal Importance, Cheshire LBAP and Red List	1	1(3)
Redwing	Turdus iliacus	Schedule 1 and Red List	24	3(3)
Mistle thrush	Turdus viscivorus	Red List	1	2(3)
Dunnock	Prunella modularis	Species of Principal Importance and Amber List	4	3(3)
House sparrow	Passer domesticus	Species of Principal Importance, Cheshire LBAP and Red List	12	3(3)
Tree sparrow	Passer montana	Species of Principal Importance, Cheshire LBAP and Red List	6	2(3)
Meadow pipit	Anthus pratensis	Amber List	18	3(3)
Bullfinch	Pyrrhula pyrrhula	Species of Principal Importance, Cheshire LBAP and Amber List	3	2(3)

Common name	Scientific name	Status	Maximum count of individuals during the survey period	Number of survey visits during which the species were recorded (out of the total)
Linnet	Linaria cannabina	Species of Principal Importance, Cheshire LBAP and Red List	4	2(3)
Yellowhammer	Emberiza citrinella	Species of Principal Importance, Cheshire LBAP and Red List	22	3(3)
Reed bunting	Emberiza schoeniclus	Species of Principal Importance, Cheshire LBAP and Amber List	1	1(3)

3.4.27 Based on these results, the wintering bird assemblage recorded at Chorlton Heath is of local/parish importance. The presence of two roosting barn owls at Basford Hall Farm within the Chorlton Heath survey site is of county value.

CA₅ Summary

3.4.28 The wintering bird assemblages recorded at Checkley and Chorlton Heath are of local/parish importance. The presence of two roosting barn owls at the Chorlton Heath survey site is of county value.

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