



West Winch Housing Access Road

Environmental Statement Chapter 8: Annex 8.3 Hedgerow Survey Report

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Document Reference: NCC/3.08.07

Version Number: 01

Date: November 2023



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1 Hedgerow Survey Report

1.1 Methodology

Ecological Survey of Hedgerows

- 1.1.1 All hedgerows within the (previous) Scheme Boundary were surveyed with regard for the information required by the Wildlife and Landscape Criteria of the Hedgerow Regulations 1997 (the Regulations).
- 1.1.2 In accordance with the Regulations the hedgerows were measured from the point or points where they met another hedgerow(s) or where there was a gap of more than 20 metres between the end of the hedgerow and the nearest line of hedgerow. Gaps within a hedgerow were included in the total length provided they were 20 metres or less in length.
- 1.1.3 Notes were made on the following in accordance with the criteria outlined in Schedule 1, Part II of the Regulations:
- Number of woody species, on average, in a 30 metre length;
 - Presence of rare tree species such as Black Poplar *Populus nigra ssp. betulifolia*, Large-leaved Lime *Tilia platyphyllos* and Small-leaved Lime *Tilia cordata* and Wild Service Tree *Sorbus torminalis*;
 - Number of standard trees, on average, within each 50 metre section;
 - Number of gaps in the hedge;
 - Presence of woodland ground flora species listed in Schedule 2 of the Regulations;
 - Presence of ditches, banks or walls;
 - Number of connections with other hedgerows, ponds or woodland;
 - Presence of parallel hedges within 15 metres of the hedge; and
 - Presence of bridleways, footpaths, byways or public paths.



1.1.4 In accordance with the Regulations the number of woody species present per 30 metre length was recorded in the following manner:

- Where the length of the hedgerow did not exceed 30 metres, the total number of woody species present in the hedgerow was recorded;
- Where the hedgerow was between 30 metres and 100 metres in length, the number of woody species present in the central 30 metre stretch was recorded;
- Where the hedgerow length was between 100 metres and 200 metres, the number of woody species present in the central 30 metre stretches of the two halves of the hedgerow were recorded and the mean of the two calculated; and
- Where the length of the hedgerow was over 200 metres, the numbers of woody species present in the central 30 metre stretch of each third of the hedgerow were recorded and the mean of the three calculated.

1.1.5 With regard for the Hedgerow Survey Handbook (2nd Edition) (DEFRA, 2007) further details, not required under the Regulations, such as hedgerow height, width, integrity, structure, and management history were recorded.

Evaluation of Results

1.1.6 The field survey information was then assessed to establish whether each hedge fulfilled the Wildlife and Landscape criteria within the Regulations.

Dates of Survey and Personnel

1.1.7 The hedgerow surveys were completed by competent surveyors with over 10 years' experience of ecological surveys, including hedgerow surveys. Hedgerows within the Scheme Boundary were surveyed in 2019, with a repeat visit in 2021. The first two surveys were conducted on the 12th July 2019 and 11th September 2019, whilst the repeat visit was completed on the 7th September 2021.



Notes and Limitations

- 1.1.8 One qualifying criterion within the Hedgerow Regulations 1997 relates to whether the hedgerow in question supports protected species and, or species of conservation concern..
- 1.1.9 Only Wildlife and Landscape criteria of the Regulations were considered within this assessment; therefore, it is possible hedgerows which do not qualify as 'Important Hedgerows' under these criteria may still qualify under archaeology and history criteria.
- 1.1.10 All hedgerows within the Scheme Boundary were believed to be over 30 years old; and therefore, for the purpose of this assessment all hedgerows have been considered as though subject to the Regulations.

1.2 Results and Evaluation

Overview

- 1.2.1 Of the six hedgerows surveyed, five (H1, H2, H4, H5, and H6) qualified as 'Important Hedgerows' under the Wildlife and Landscape criteria of the Regulations.

Ecological Field Survey of Hedgerows

- 1.2.2 Six hedgerows were identified within the Scheme Boundary and subject to survey. Hedgerow locations are shown on Figure 1, in Appendix A (this has been updated with the latest Scheme Boundary (October 2023)).

Hedgerow 1 (H1)

- 1.2.3 H1 was located within the north of the Scheme Boundary, running adjacent to the A47. It formed the northern extent of a hedgerow system to include H2, bisected by a dwelling. The hedgerow shape was classed as untrimmed and overgrown with outgrowth and measured approximately 180m in length. The average height of the hedge was approximately 6m and average width approximately 3m. Adjacent land use and management included agricultural land (arable) and a major road (A47). The hedgerow contained four woody species, to include Blackthorn *Prunus spinosa*, Common Hawthorn *Crataegus*



monogyna, Pedunculate Oak *Quercus robur*, and Crab Apple *Malus sylvestris*. Ground flora comprised Nettle *Urtica dioica*, Bramble *Rubus fruticosus* agg., Cleavers *Galium aparine*, Broad-leaved Dock *Rumex obtusifolius*, Hogweed *Heracleum sphondylium* and Creeping Thistle *Cirsium arvense*. The associated features with this hedgerow included a dry ditch running directly alongside the hedgerow, two standard trees, a parallel hedgerow within 15m and a gap in the hedgerow at approximately 10% of its length.

- Important under the Hedgerow Regulations 1997: Yes
- HPI under the NERC Act 2006: Yes

Hedgerow 2 (H2)

1.2.4 H2 was located within the north of the Scheme Boundary, running adjacent to the A47 and located just south of H1. It formed the southern extent of a hedgerow system bisected by a dwelling, the other end being H1. The hedgerow shape was untrimmed and tall and leggy, and measured approximately 600m in length. The average height of the hedgerow was approximately 6m, whilst the average width was approximately 3m. Adjacent land use and management included agricultural land (arable) and a major road (A47). The hedgerow contained three woody species, to include Elm *Ulmus spp.*, Common Hawthorn, and Pedunculate Oak. Ground flora comprised Nettle, Bramble, Cleavers, Hogweed, Red Deadnettle *Lamium purpureum*, and Ivy *Hedera helix*. The associated features with this hedgerow included one standard tree, a parallel hedgerow within 15m and a gap in the hedgerow at approximately 3% of its length.

- Important under the Hedgerow Regulations 1997: Yes
- HPI under the NERC Act 2006: Yes

Hedgerow 3 (H3)

1.2.5 H3 was located within the middle of the Scheme Boundary, running east-west along the south side of Rectory Lane. The hedgerow shape was trimmed and dense and measured approximately 250m in length. The average height of



the hedgerow was approximately 2m, whilst the average width was approximately 2m. Adjacent land use and management included agricultural land (arable), a public footpath/track and a minor road (Rectory Lane). The hedgerow contained five woody species, to include Elm, Elder *Sambucus nigra*, Ash *Fraxinus excelsior*, Common Hawthorn, and Pedunculate Oak. The hedgerow also contained one woodland species, Herb-Robert *Geranium robertianum*. Ground flora comprised Nettle, Bramble, Cleavers, Hogweed, Creeping Thistle, Broad-leaved Dock, Cow Parsley *Anthriscus sylvestris*, Garlic Mustard *Alliaria petiolata*, Horsetail *Equisetum arvense*, White Deadnettle *Lamium album*, Hemlock *Conium maculatum*, Spear Thistle *Cirsium vulgare*, Prickly Sow Thistle *Sonchus asper*, Silverweed *Potentilla anserina*, Ragwort *Senecio jacobaea*, Mugwort *Artemisia vulgaris*, Common Fleabane *Pulicaria dysenterica*, and Ivy. The associated features with this hedgerow included one standard tree and a parallel hedgerow within 15m.

- Important under the Hedgerow Regulations 1997: No
- HPI under the NERC Act 2006: No

Hedgerow 4 (H4)

1.2.6 H4 was located within the middle of the Scheme Boundary, running east-west along the north side of Rectory Lane. The hedgerow shape was trimmed and dense and measured approximately 250m in length. The average height of the hedgerow was approximately 2.5m, whilst the average width was approximately 2m. Adjacent land use and management included agricultural land (arable) and a minor road (Rectory Lane). The hedgerow contained three woody species, to include Elder, Ash and Common Hawthorn. Ground flora comprised Nettle, Bramble, Creeping Thistle, Spear Thistle, Cleavers, Hogweed, White Deadnettle, Broad-leaved Dock, Cow Parsley, Spear Thistle, Hemlock, Mugwort, Ragwort, Common Fleabane, Horsetail, Ivy, White Campion *Silene latifolia*, Mallow *Malva sylvestris*, Yarrow *Achillea millefolium*, Dandelion *Taraxacum officinale*, Poppy *Papaver rhoeas*, Ribwort Plantain *Plantago lanceolata*, Tansey *Tanacetum vulgare*, Field Bindweed,



Convolvulus arvensis. The associated features with this hedgerow included a dry ditch and a parallel hedgerow within 15m.

- Important under the Hedgerow Regulations 1997: Yes
- HPI under the NERC Act 2006: Yes

Hedgerow 5 (H5)

1.2.7 H5 was located just north of the centre of the Scheme Boundary, running in a north-south direction between arable fields. The hedgerow shape was trimmed and dense and measured around 30m in length. The average height of the hedgerow was approximately 3m. Adjacent land use and management included agricultural land (arable) and a public right of way (footpath). H5 had connections at both ends, where H5 was connected to a pond at its southern end, and a woodland (Sheep's Course wood) at its northern end. The hedgerow comprised three woody species, Common Hawthorn, Pedunculate Oak And Dog Rose *Rosa canina*. Ground flora comprised Lords And Ladies *Arum maculatum*, Hogweed, Nettle, Pale St John's-wort *Hypericum montanum*, Cocks-foot Grass *Dactylis glomerata*, False Oat-grass *Arrhenatherum elatius*, Bramble, Dock *Rumex spp.*, Ivy, Creeping Thistle, Greater Plantain *Plantago major*, Ribwort Plantain, Cat's Tail *Phleum pratense*, Common Bent Grass *Agrostis capillaris*, Buttercup *Ranunculus spp.*, Hedge Woundwort *Stachys sylvatica*, and Yorkshire Fog *Holcus lanatus*.

- Important under the Hedgerow Regulations 1997: Yes
- HPI under the NERC Act 2006: Yes

Hedgerow 6 (H6)

1.2.8 H6 was located at the southern end of the Scheme Boundary, running in an east-west direction along Chequers Lane. The hedgerow shape was tall and leggy, and measured approximately 180m in length. The average height of the hedgerow was approximately 8m, whilst the average width is approximately 2m. Adjacent land use and management included agricultural land (arable) and a minor road (Chequers Lane). The hedgerow contained seven woody species, to include Crab Apple, Ash, Elm, Common Hawthorn,



Midland Hawthorn *Crataegus laevigata*, Large-leaved Lime *Tilia platyphyllos*, and Field Maple *Acer campestre*. Ground flora comprised Cow Parsley, Bramble, Common Fleabane, Hogweed, Ivy, Poppy, Cleavers, Yarrow, Ragwort, Creeping Thistle, Horsetail, Ribwort Plantain, Mugwort, Dandelion And Broad-leaf Plantain *Plantago major*. The associated features with this hedgerow included ~5 standard trees and a gap in the hedgerow at 30% of its length.

- Important under the Hedgerow Regulations 1997: Yes
- HPI under the NERC Act 2006: Yes

Evaluation of Results

1.2.9 Five hedgerows qualified as Important Hedgerows under the Regulations, as shown in Table 1 below.

1.2.10 Though five of the six qualified as 'Important Hedgerows' under Wildlife and Landscape criteria of the Regulations, all hedgerows within the Scheme Boundary qualified as Habitats of Principal Importance (HPI) in accordance with the Natural Environment and Rural Communities (NERC) Act (2006) and as UKBAP Priority habitat in accordance with the UK Biodiversity Action Plan (2007). All hedgerows consisting predominantly (i.e., 80% or more cover) of at least one woody UK native species are covered by this Priority habitat (JNCC, 2008).



Table 1-1 – Evaluation of hedgerow importance under the Wildlife and Landscape Criteria of the Regulations

Hedgerow Number	H1	H2	H3	H4	H5	H6
Curtilage of dwelling	No	No	Y	No	No	Yes
7 woody species	No	No	No	No	No	Yes
6 woody species and 3 associated features	No	No	No	Yes	No	No
6 woody species, including black poplar, large leaved lime, small leaved lime, wild service tree	No	No	No	No	No	Yes
5 woody species and 4 associated features	No	No	No	Yes	No	No
Is adjacent to a PROW or byway and includes 4 woody species and 2 associated features	Yes	No	No	No	No	Yes
Presence of protect species.	Yes	Yes	No	Yes	Yes	Yes
Important under ecological criteria	Yes	Yes	No	Yes	Yes	Yes



Protected Species

- 1.2.11 Section 4.2 of this report assesses hedges based on botanical, geographic and heritage criteria. A hedge may also qualify as an Important Hedgerow if it contains animal or plant species which are listed in the Hedgerow Regulations 1997 Schedule 6 (a).
- 1.2.12 No plant species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (and subject to full protection) were recorded during field surveys that would qualify a hedgerow as an Important Hedgerow.
- 1.2.13 Data obtained from protected species surveys undertaken across the Scheme Boundary as part of the wider ecological assessment has been cross-referenced to inform whether any of the hedgerows qualify as Important solely on the basis of Schedule 6 (a). Table 2 below shows additional hedgerows that have been identified as Important using the information from the protected species surveys alone.

Table 1-2 – Additional hedgerows which qualify as important under Schedule 6(a)

Hedgerow	Reason for qualification
H1	<p>A single singing Song Thrush <i>Turdus philomelos</i> was observed along H1 during the fifth breeding bird survey in June 2021, whilst a single singing Whitethroat <i>Sylvia communis</i> was observed along H1 on the third breeding bird survey visit in May 2021. Song Thrush and Whitethroat are designated as amber listed birds of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, & Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997. Multiple Wren <i>Troglodytes troglodytes</i> were recorded singing along H1 on the breeding bird survey visits in May and June 2021, where H1 comprises the edge of a Wren territory. Wren are listed as amber on the birds of conservation concern (Stanbury, et al., 2021). Multiple Yellowhammer <i>Emberiza citrinella</i> were observed singing along H1 during the breeding bird survey visits in April and May 2021, where H1 comprises part of a Yellowhammer territory held at the northern end of the hedgerow. Yellowhammer are designated a red listed bird species of conservation concern (Stanbury, et al., 2021).</p>
H2	<p>A single Wren was recorded singing in H2 on a breeding bird survey visit in May 2021. Wren are designated as amber listed birds of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, & Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997. A single Redwing <i>Turdus iliacus</i> and a single Meadow Pipit <i>Anthus pratensis</i> were recorded along H2 during a wintering bird survey visit in December 2020. Both Redwing and Meadow Pipit are listed as an amber bird species of conservation concern (Stanbury, et al., 2021).</p>



Hedgerow	Reason for qualification
H4	Two singing Whitethroat were recorded at either end of H4 on a single breeding bird survey visit in May 2021. Whitethroat are designated as an amber listed bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, et al., 1990) specified in Schedule 6 of the Hedgerow Regulations 1997. A single Dunnock <i>Prunella modularis</i> was observed along H4 during a wintering bird survey visit in February 2021. Dunnock are listed as an amber bird species of conservation concern (Stanbury, et al., 2021).



Hedgerow	Reason for qualification
H5	<p>A single Whitethroat was observed within H7 during the third breeding bird survey visit in May 2021. Whitethroat are listed as an amber bird species of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, & Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997. A single Stock Dove was observed along H7 during a wintering bird survey visit (visit 4), where Stock Dove <i>Columba oenas</i> are listed as an amber bird species of conservation concern (Stanbury, et al., 2021).</p> <p>A Pipistrelle <i>pipistrellus sp.</i> bat roost was recorded during dusk emergence surveys in June and July 2021, within the veteran oak tree connected to H5 at its southern end. Pipistrelle bats are protected under the Conservation of Species and Habitats Regulations 2017 (as amended The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) and are listed under Schedule 5 of the Wildlife and Countryside Act 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p> <p>Two adult Grass Snakes <i>Natrix natrix</i> were recorded during a reptile survey in September 2021. Grass Snake were absent from the 2019 surveys; however, an adult and a juvenile Common Lizard <i>Zootoca vivipara</i> were recorded along H5, towards the southern end of the hedgerow near the connected pond. Both Grass Snake and Common Lizards are listed as protected species under Schedule 5 of the Wildlife and Countryside Act 1981.</p>

Hedgerow	Reason for qualification
H6	<p>Two Common Lizards (one adult and one juvenile) were recorded on the grassland strip on the arable margin near the base of H6 in 2021 during a reptile survey. Common Lizard are listed under Schedule 5 of the Wildlife and Countryside Act 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p> <p>Multiple Yellowhammer were observed during the breeding bird surveys in May and June 2021 along H6. Whitethroat were also observed on two breeding bird survey visits during April and June 2021, where the bird was recorded singing during the April visit. H6 encompasses part of a Whitethroat territory.</p> <p>Yellowhammer and Whitethroat are designated as amber listed birds of conservation concern (Stanbury, et al., 2021), which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, & Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997. A single Greenfinch <i>Chloris chloris</i> was observed along H6 on a breeding bird survey visit in May 2021, whilst H6 encompasses part of a Greenfinch territory. A single Greenfinch was also recorded along H6 during a wintering bird survey visit in February 2021. Greenfinch are designated as a red bird species of conservation concern (Stanbury, et al., 2021). A single Sparrowhawk <i>Accipiter nisus</i> was recorded along H6 on a wintering bird survey visit in November 2020, and a single Song Thrush observed along H6 during a survey visit in February 2021.</p> <p>Both Sparrowhawk and Song Thrush are listed as an amber bird species of conservation concern (Stanbury, et al., 2021).</p>



1.2.14 During the invertebrate surveys, no species categorised as “endangered”, “extinct”, “rare” or “vulnerable” were recorded in/on any hedgerow within the Scheme Boundary. Therefore, none of the surveyed hedgerows qualify as Important Hedgerows on this basis.

1.3 References

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