



Norfolk County Council

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# Norwich Western Link Road

Hedgerow Report





Norfolk County Council

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## **Norwich Western Link Road**

### Hedgerow Report

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# 1 Introduction

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## 1.1 Project background

- 1.1.1. The Norwich Western Link Road (NWL) is a highway scheme linking the A1270 Broadland Northway from its junction with the A1067 Fakenham Road to the A47 trunk road near Honingham.
- 1.1.2. The NWL, hereafter referred to as the Scheme, will comprise the following listed below:
- Dualling the A1067 Fakenham Road westwards from its existing junction with the A1270 to a new roundabout located approximately 400m to the north-west;
  - Construction of a new roundabout; and
  - Constructing a dual carriageway link from the new roundabout to a new junction with the A47 near Honingham.
- 1.1.3. As part of a separate planned scheme, National Highways proposes to realign and dual the A47 from the existing roundabout at Easton to join the existing dual carriageway section at North Tuddenham. If that scheme proceeds, it is expected that National Highways will construct the Honingham junction and the Norwich Western Link will connect to the north-eastern side of that junction.
- 1.1.4. The Scheme will cross the River Wensum and its flood plain by means of a viaduct. In addition, six other structures are proposed to cross minor roads and to provide habitat connectivity. The Scheme will include ancillary works such as provision for non-motorised users, necessary realignment of the local road network, including the stopping up of some minor roads, and the provision of environmental mitigation measures.

## 1.2 Ecological background

- 1.2.1. Hedgerows were identified following the Phase 1 Habitat Survey (WSP, Norwich Western Link Road - Phase 1 Habitat Survey Report, 2021) as a feature that will be impacted by the Scheme. It was therefore recommended that a hedgerow survey be undertaken to establish a sufficient baseline to inform impact assessment.

## 1.3 Brief and objectives

- 1.3.1. WSP UK Ltd was commissioned by NCC to complete a hedgerow survey, with the following objectives:
- Establish whether hedgerows within or directly connected to the Scheme meet the criteria to be considered as:
    - Habitat of Principal Importance (HPI) under the Natural Environment and Rural Communities Act (NERC) 2006; and/or
    - 'Important' under the Hedgerow Regulations 1997.

- Establish whether a hedgerow could be considered veteran or ancient, and therefore an irreplaceable habitat (CIEEM, Biodiversity net gain. Good practice principles for development A practical guide, 2019); and
- Present the findings of the survey in a baseline report.

1.3.2. The findings of these objectives will be used to inform the impact assessment and proposed mitigation for hedgerows. Details of the impact assessment and mitigation will be included within the Biodiversity Chapter of the Environmental Statement for the Scheme and will incorporate the results of this report.

## **1.4 Study area and survey area**

- 1.4.1. An ecological Desk Study was completed in October 2021 to include recent data relevant to the Route. The Study Area was therefore defined as a 2km radius of the Scheme boundary.
- 1.4.2. The Survey Area in relation to hedgerows comprised all hedgerows within or directly connected to the Scheme. The Scheme and hedgerows included within the Survey Area are shown in separate document Appendix A.

## 2 Relevant legislation

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- 2.1.1. The hedgerow survey has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England. Relevant legislation and policy include:
- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
  - The Wildlife and Countryside Act 1981 (as amended) (WCA);
  - Hedgerow Regulations 1997 under section 97 of the Environment Act 1995 (Appendix B);
  - The Natural Environment and Rural Communities (NERC) Act 2006 (England);
  - The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC, 2012);
  - Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA, 2011);
  - UK Biodiversity Action Plan (UKBAP), which has now been replaced by the UK Post 2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant; and
  - The National Planning Policy Framework (NPPF) 2019 (Ministry of Housing Communities & Local Government, February 2019).



## 3 Methods

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### 3.1 Overview

3.1.1. Details of the desk study and hedgerow survey are included in this section.

### 3.2 Desk study

- 3.2.1. The Multi-Agency Geographic Information for the Countryside (MAGIC) database was accessed for information relating to public rights of way in order inform Schedule 8 of the Hedgerow Regulations 1997 (Appendix B). Hedges were identified from aerial photography and digitised in GIS to form a base map to inform survey work.
- 3.2.2. The following resources were used to determine whether a hedgerow qualified as Important under archaeology and history criteria in Hedgerow Regulations 1997 (Appendix B):
- Ordnance Survey 1st edition 6": mile map of 1882;
  - Tithe map of Weston Longville of 1841;
  - Tithe map of Attlebridge of 1837;
  - Tithe map of Morton on the Hill of 1842;
  - Tithe map of Ringland of 1841;
  - Tithe map of Honingham of 1839; and
  - Enclosure map of Weston Longville of 1827.
- 3.2.3. Data obtained from the Norfolk Biodiversity Information Service (NBIS) alongside records of protected and notable species that have been collected as part of field surveys relating to the wider ecological assessment of the Scheme were used in the assessment of criteria relating to Schedule 6 Wildlife and Landscape of the Hedgerow Regulations (1997) presented in Section 4.4. Professional judgement was used to determine whether a protected or notable species record related directly to a particular hedgerow, for example a record of a protected bird species flying over a hedgerow was considered not to qualify, however a record of a bat roosting within a hedgerow tree was included.

### 3.3 Field survey

#### Hedgerow survey

- 3.3.1. The hedgerow survey covered the entire area within the Scheme, including all hedgerows within or directly connected to the Scheme.
- 3.3.2. Hedgerows were assessed for their potential to qualify as a HPI in the UK under the NERC Act 2006 (Maddock, 2008). The criteria for a hedgerow to be classified as a HPI under the NERC Act (2006) is listed below:
- It must be a boundary line of trees or shrubs over 20 m long and less than 5 m wide;
  - Any gaps must be less than 20 m in length;
  - Any bank, wall, ditch or tree within 2 m of the centre of the hedgerow is part of the hedgerow;
  - The hedgerow must comprise >80% of at least one woody UK native species;

- Bramble *Rubus fruticosus agg.* and honeysuckle *Lonicera periclymenum*, although typically integral parts of hedgerows, are not classified as woody species.

- 3.3.3. Each hedgerow was sampled in a maximum of three 30m sections and assessed against the criteria listed in Part II of Schedule 1 of the Hedgerow regulations 1997 (summarised in Appendix B). Methods for surveying the hedgerows i.e. determining separate hedgerows, judging their dimensions, associated features etc. was consistent with guidance set out in the Hedgerow Survey Handbook (Defra, 2007). A map showing locations of the hedgerows is provided in Appendix B.
- 3.3.4. The scientific names for plant species follow those in the New Flora of the British Isles (Stace, 2019).

### **Veteran / ancient hedgerow assessment**

- 3.3.5. An arboricultural assessment was undertaken and the results are reported in the Ancient Hedgerow Report (Appendix B). This assessment documented the presence of the following arboricultural features on the woody shrubs within the hedgerows to confirm if they qualified as ancient (Ancient tree: a tree that has reached a great age in comparison with others of the same species. Ancient trees are characterised by a low, fat and squat shape, because the crown has retrenched (reduced in size) through age, a wide trunk compared with others of the same species and hollowing of the trunk). or veteran (Veteran tree: a veteran tree is not defined by its age but shows characteristics of ancient trees (that could result from natural damage, management, or the tree's environment). Ancient trees are veteran trees, but not all veterans are ancient. However, ancient and veteran trees are afforded the same level of statutory protection and hence differentiation between ancient and veteran arboricultural features is not critical to legal constraints).
- foliose lichens;
  - bryophytes (Non-vascular plants made up of mosses, liverworts and hornworts) and ferns;
  - presence of a coppice stool that is large for the species in question;
  - natural water pools held in the coppice base;
  - degree of bark fissuring (species dependent);
  - suckers (Suckers are new branches or growth often at the base of the tree and can be an indicator that a tree is under stress. Suckers can be more prevalent in older trees);
  - stem and branch cavities;
  - hollowing of principal stems;
  - wood decaying fungal fruiting bodies;
  - decayed areas of wood;
  - sap runs/bark fluxes (Sap runs/bark fluxes are excretions of liquid sap which may be due to infection, which usually occurs from natural growth cracks, wounds, bacteria etc.); and
  - aerial roots growing into decayed wood or branches.
- 3.3.6. There is no published scoring system or threshold number of features for recognition of a tree or shrub as an ancient or veteran arboricultural feature.

- 3.3.7. Professional judgement was applied to confirm whether a tree/shrub qualifies as an ancient or veteran specimen. Quantification around tree size for both ancient and veteran trees has been offered by some commentators and size-based attributes are important (Londsdale, 2013). This is because large trees are more likely to contain more of the above features. However, size-based criteria are of limited application to hedgerow plants as they have been deliberately cut/prevented from reaching their mature height over long periods of time. Professional judgement was used to counteract instances where, seemingly small trees/shrubs, contained other indicators of ancientness/veteranisation.

### **3.4 Dates of survey and personnel**

- 3.4.1. A hedgerow field survey was carried out on the 13 May, 18 June, and 16 July 2020 and was carried out by an ecologist who is a competent surveyor with experience of completing hedgerow assessments.
- 3.4.2. Additionally, two separate visits were made by an experienced and qualified arboriculturist with extensive experience of completing arboricultural assessments for the purpose of completing the ancient / veteran hedgerow assessment. The arboricultural survey was conducted on the 18 November 2020 and 23 February 2021.
- 3.4.3. A qualified heritage specialist with extensive experience of heritage assessments and a full Member of the Chartered Institute for Archaeologists (MCIfA) undertook the historic map review of the hedgerows.

### **3.5 Notes and limitations**

- 3.5.1. Every effort has been made to provide a comprehensive description of hedgerows in the Survey Area, however, the following specific limitations apply to this assessment:
- The field survey was carried out over the period of three days in May, June and July focussing on different sections of the Scheme on each visit. As such, only a selection of all plant species that occur within the Scheme, and identifiable in that season, will have been recorded. However, the dates selected were in the optimal period for identifying all woody species and the majority of herbaceous/ground floral species were also in flower, hence it is likely the majority of species were documented including all those relevant to the Hedgerow Regulations 1997.
  - Historic maps are often limited in detail regarding the presence of hedgerows, where linear features are mapped, it is not possible to confirm that it existed as a hedgerow at that point in time. Historic maps are therefore used in conjunction with data collected from the field survey as an aid in the interpretation of a hedgerows age (Section 4.2).
  - Desk study data obtained from NBIS to inform Section 4.4, looked at records submitted within 10 years (post 2009). Records were only used where they were of sufficient spatial accuracy (8-figure grid reference or better) that the record could be attributed to a particular hedge.
  - The Hedgerow Regulations 1997 Schedule 6 refer to red data book references that are out of date, the most recent editions of these publications were used in the assessment.

## 4 Results

### 4.1 Overview

- 4.1.1. A total of 25 hedgerows (H1 to H25) were in or partially within the Scheme boundary. They were surveyed and assessed to determine whether they qualified as hedgerow HPI, as Important Hedgerows and whether they are ancient.
- 4.1.2. All of the hedges, aside from hedge H2, qualify as hedgerow HPI.
- 4.1.3. Eighteen hedges qualified as Important Hedgerows, but only two of the hedgerows (H6 and H15) qualified on botanical criteria, H24 qualified on archaeological and historical criteria, and fifteen only qualified on the basis of protected or notable faunal records associated with them (Schedule 6). None of the hedgerows contained ancient or veteran features.
- 4.1.4. The results are summarised below in Table 4-1. The full results of the surveyed hedgerows against each criteria set out in the Hedgerow Regulations 1997 are provided in Appendix B.

**Table 4-1 - Summary of hedgerow survey results**

Hedgerow	HPI	Important Hedgerow	Ancient / Veteran	Survey Date
H1	Yes	No	No	13/05/20
H2	No	Yes (Note*)	No	13/05/20
H3	Yes	Yes (Note*)	No	13/05/20
H4	Yes	Yes (Note*)	No	13/05/20
H5	Yes	Yes (Note*)	No	13/05/20
H6	Yes	Yes	No	13/05/20
H7	Yes	Yes (Note*)	No	13/05/20
H8	Yes	Yes (Note*)	No	13/05/20
H9	Yes	No	No	13/05/20
H10	Yes	No	No	13/05/20
H11	Yes	Yes (Note*)	No	13/05/20
H12	Yes	Yes (Note*)	No	18/06/20
H13	Yes	Yes (Note*)	No	18/06/20
H14	Yes	No	No	18/06/20
H15	Yes	Yes	No	18/06/20
H16	Yes	No	No	18/06/20
H17	Yes	Yes (Note*)	No	18/06/20
H18	Yes	Yes (Note*)	No	18/06/20
H19	Yes	Yes (Note*)	No	18/06/20

Hedgerow	HPI	Important Hedgerow	Ancient / Veteran	Survey Date
H20	Yes	No	No	18/06/20
H21	Yes	No	No	16/07/20
H22	Yes	Yes (Note*)	No	16/07/20
H23	Yes	Yes (Note*)	No	16/07/20
H24	Yes	Yes	No	16/07/20
H25	Yes	Yes (Note*)	No	16/07/20

Note\* Hedgerows that are considered important based solely on protected species information Section 4.4

## 4.2 Desk study

- 4.2.1. One of the hedgerows (H24) met the criteria set out in the Hedgerow Regulations 1997 (archaeology and history) (Appendix B). The hedgerow aligns with the parish boundary between Morton on the Hill and Weston Longville. The remaining hedgerows all appear to be associated with 18th and 19th century enclosure, from analysis of the tithe maps and enclosure map.

## 4.3 Field survey

- 4.3.1. No shrubs with ancient or veteran features were present within any of the surveyed hedges and therefore no hedges were considered likely to be ancient or veteran hedgerows. Veteran trees were infrequently present within the hedgerows; however these were determined to pre-date the linear features that they were constituent parts of, with hedgerow plants not containing comparable ancient or veteran features.

### Hedgerow 1 (H1)

- 4.3.2. H1 comprised a 50m long 2.5m wide line of small hawthorn *Crataegus monogyna*, with semi-mature pedunculate oak *Quercus robur*, sycamore *Acer pseudoplatanus* and tree of heaven *Ailanthus altissima* making up the majority of its length. The average height of the hedge was approximately 7m. Ground flora was dominated by nettle *Urtica dioica*, with bramble *Rubus fruticosus* agg., barren brome *Bromus sterilis*, and cow parsley *Anthriscus sylvestris* also present. H1 is connected to Juniper Valley Woods at its northern extent.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-1 - H1 facing north**

### **Hedgerow 2 (H2)**

4.3.3. H2 comprised a 90m long, 3m wide and 10m tall row of Leyland cypress *Cupressus x leylandii* that runs along the southern side of the A1067 Fakenham Road. The hedge consisted entirely of Leyland cypress, with a sparse ground layer consisting of perennial rye grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, and cow parsley.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **No**
- Veteran / Ancient: **No**



**Figure 4-2 - H2 facing south**

### **Hedgerow 3 (H3)**

4.3.4. H3 was a 300-metre-long, 2.5-metre-wide, recently planted hedge with an average height of 2.75m. H3 was a hawthorn dominated hedge, containing lower occurrences of the following woody species, plum *Prunus domestica*, field maple *Acer campestre*, blackthorn *Prunus spinosa*, spindle *Euonymus europaeus*, and dogwood *Cornus sanguinea*. The ground flora present comprised a 5m strip of poor-semi-improved neutral grassland on the eastern side, with species present including red fescue *Festuca rubra*, barren brome, ox-eye daisy *Leucanthemum vulgare*, cow parsley, nettle, bramble, mugwort *Artemisia vulgaris* and broad-leaved dock *Rumex obtusifolius*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-3 - H3 facing north**

#### **Hedgerow 4 (H4)**

4.3.5. H4 was a mature hawthorn dominated hedge, 300m long running east-west with a central north-south kink, and 3m wide with standard trees present along its length. Some stands of hawthorn and field maple within the hedge were mature with signs of old growth, mature pedunculate oaks and a mature holly *Ilex aquifolium* tree with a mature ash *Fraxinus excelsior* coppice was also present. Sections of the hedge were gappy totalling 30-40% of the hedgerow length. A deep dry ditch ran along the majority of the hedgerow length. The ground flora was characterised as rank, poor semi-improved grassland with cock's-foot, nettle, creeping thistle *Cirsium arvense*, mugwort, bramble, teasel *Dipsacus fullonum*, and cow parsley.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**





**Figure 4-4 - H4 facing north**

### **Hedgerow 5 (H5)**

- 4.3.6. H5 runs along the northern side of Weston Green Road and is approximately 500m long and 2m wide. Sections of the hedge appeared recently planted due to the small size and relatively young age of the woody species present. The majority of the hedge comprised hawthorn, with lower occurrences of other species including dogwood, field maple, hornbeam *Carpinus betulus*, sycamore and pedunculate oak, with mature pedunculate oak trees at the western extent of the hedge. The ground flora associated with the hedge comprised a 1-2m roadside verge, with species present including barren brome, hogweed *Heracleum sphondylium*, white dead nettle *Lamium album*, red campion *Silene dioica*, wood avens *Geum urbanum*, bracken *Pteridium aquilinum*, ribwort plantain *Plantago lanceolata*, and greater stitchwort *Stellaria holostea*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-5 - H5 facing west**

### **Hedgerow 6 (H6)**

4.3.7. H6 runs parallel to H5 along the southern side of Weston Green Road and appeared to be a more well-established hedgerow, at a similar length of 500m and approximately 2.5m wide. A good diversity of deciduous, woody species were recorded in the hedgerow, with taller sections (7-8m) comprising semi-mature / mature specimens. Hawthorn and blackthorn were the most frequently recorded species. Other species included holly, pedunculate oak, hazel, plum *Prunus domestica*, spindle, field maple, ash, and beech *Fraxinus excelsior*. Horse chestnut *Aesculus hippocastanum* and honeysuckle *Lonicera periclymenum* were also present. Mature pedunculate oak trees were present occasionally throughout but were more frequent towards the west. The ground flora is present on a 1m roadside verge with species including, cow parsley, broad-leaved dock, white dead nettle, greater stitchwort, red fescue, bramble, and ribwort plantain. H6 qualifies as an important hedgerow under criteria 7(1) (b) containing at least six woody species when totalled across the central 30m of each third of the hedge and divided by three as per criteria 7 (3) (d) and has associated with it at least three of the features specified in 7 (4) (4(b), 4(i), and 4(e)).

- Important under the Hedgerow Regulations 1997: **Yes**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-6 - H6 facing west**

### **Hedgerow 7 (H7)**

4.3.8. H7 runs east-west along the southern edge of Pump Farm paddocks, separating them from arable land to the south. The hedge was approximately 530m in length and varied in height along its length from 2.5m to taller 8m sections. Hawthorn and field maple were the most abundant species throughout the hedge, with dogwood, pedunculate oak (some mature trees), holly (some tall semi-mature), elder *Sambucus nigra*, and sycamore. Ground flora consists of poor semi-improved grassland horse paddocks on the northern side and a 1.5m grass strip along the southern side, species present included perennial rye-grass, red fescue, barren brome, cleavers, creeping thistle, nettle, and groundsel *Senecio vulgaris*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-7 - H7 facing west**

### **Hedgerow 8 (H8)**

4.3.9. H8 runs north-south, separating arable fields to the east and west. It was approximately 400m in length and 3m wide. The most frequently recorded species was hawthorn, with blackthorn and hazel also abundant in sections. Other species present included elder and pedunculate oak, with two mature pedunculate oak standards and a veteran pedunculate oak near the southern extent of H8. The ground flora was confined to a <1m strip either side, dominated by perennial rye-grass with cow parsley and nettle. Corn spurry *Spergula arvensis* was identified within the arable margin of this edge and is considered 'Vulnerable' in the Vascular Plant Red List for England (Stroh, 2014).

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-8 - H8 facing south**

### **Hedgerow 9 (H9)**

4.3.10. H9 bisected two arable fields and was approximately 600m in length although the hedge had significant gaps totalling 30-40%, especially in its southern half. Hawthorn was abundant within the hedge with elm *Ulmus minor* also abundant within the northern third of the hedge, a ditch was also present along this section which is more contiguous. Other species recorded included field maple, elder, hazel, and pedunculate oak with one mature standard. Ground flora associated with the hedge comprised a 1-2m species poor strip on both sides dominated by barren brome, with abundant cow parsley and nettle.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-9 - H9 facing south**

### **Hedgerow 10 (H10)**

4.3.11. H10 runs along the northern side of Breck road and is approximately 600m in length with occasional gaps totalling 20% of the hedge, with a height of 1.75m. The majority of the hedge is dominated by hawthorn, with lower occurrences of other species including beech, elder, holly, field maple, ash, and a partially-dead, densely ivy-clad pedunculate oak at the western end. Ground flora comprised a 1m strip on the arable margin on the northern side and roadside verge on the south, dominated by perennial rye-grass with cow parsley, white dead nettle, hogweed, nettle, and cleavers also present.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-10 - H10 facing west**

### **Hedgerow 11 (H11)**

4.3.12. H11 runs along the southern side of Breck road parallel to H10 and is approximately 630m in length and 2m wide. The species composition is similar to that of H10, dominated by hawthorn, with smaller proportions of other species including, field maple, beech, ash, elder, holly, and pedunculate oak. The main difference between H10 and H11 being that H11 is punctuated by mature pedunculate oaks along the majority of its length every 35m or so. The east of the hedge is taller (7-8m) than the western part. This is caused by frequent semi-mature ash trees in the final c.100m. The ground flora consisted of a 1m strip either side, with perennial-rye grass, nettle, cow parsley, creeping buttercup *Ranunculus repens*, greater stitchwort, and hogweed.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-11 - H11 on the right, facing east**

### **Hedgerow 12 (H12)**

4.3.13. H12 is located within the south of the Scheme, south of the Broadway, running east-west separating arable fields. H12 is approximately 400m long and 2.5m wide, predominantly consisting of blackthorn, with hawthorn also frequent, and standard pedunculate oaks a regular feature especially towards the eastern extent. Hazel and dog rose *Rosa canina* were also recorded infrequently within the hedge. The ground flora comprised a 5m strip of poor-semi-improved grassland on the northern side which is occasionally mown to leave a 2m strip of taller grassland close to the hedge, and a 2 m strip along the southern side. Species within this grassland included false-oat grass *Arrhenatherum elatius*, barren brome, broad leaved dock, hogweed, nettle, bramble, cock's-foot, and flax *Linum usitatissimum*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**





**Figure 4-12 - H12 facing east**

### **Hedgerow 13 (H13)**

4.3.14. H13 is located south of Foxburrow Plantation bounding the northern edge of arable fields, it is approximately 500m in length and 2m wide. The hedge is dominated by hawthorn with some mature and standing deadwood, western sections of the hedge contain blackthorn abundantly, other woody species included elder, field maple and two veteran pedunculate oak trees. Ground flora is limited with arable land pushing up to it on the southern side, with poor semi-improved grassland on the northern side, species included perennial rye-grass, red fescue, nettle, meadow foxtail *Alopecurus pratensis*, ragwort *Senecio jacobaea*, and creeping thistle.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-13 - H13 facing west**

### **Hedgerow 14 (H14)**

4.3.15. H14 runs north-south between arable fields and is approximately 400m in length. H14 is mostly continuous, consisting predominantly of semi-mature hawthorn and blackthorn, with elder, dog rose and a mature ash coppice also present within the hedge. The ground flora associated with the hedgerow was present mostly on the eastern side, with a 5m strip that is occasionally mown. This strip was dominated by perennial rye-grass, with nettle, white clover *Trifolium repens*, creeping buttercup, false-oat grass, creeping thistle, and ragwort. On the western side, arable land was close to the hedge.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-14 - H14 facing south**

### **Hedgerow 15 (H15)**

4.3.16. H15 was a 530m long, curved hedgerow, running north-south, separating arable land to the east and west. The hedge was dense and continuous along the majority of its length, with a dry ditch running along the eastern side. H15 was connected to a small woodland block with a dry depression (potentially seasonally wet) at the southern end of H15 and a connection to H13 at its northern end. The hedge comprised of a good diversity of woody species, with frequent hawthorn, field maple and blackthorn, other species recorded included ash, elder, dog rose, hazel, and pedunculate oak (with two mature standards). The ground flora associated with the hedge was present mostly on the eastern side with a poor semi-improved grassland strip approximately 5m wide. Species recorded within this strip included false oat-grass, cock's-foot, perennial rye-grass, creeping thistle, broad-leaved dock, bracken, common knapweed *Centaurea nigra*, cow parsley, ragwort, and white clover. On the western side of the hedge the arable land extended close to the base of the hedge. H15 qualifies as an Important Hedgerow under criteria 7(1) (a), containing an average of seven woody species when totalled across the central 30m of each third of the hedge and divided by three as per criteria 7 (3) (d) of the Hedgerow regulations 1997.

- Important under the Hedgerow Regulations 1997: **Yes**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-15 - H15 facing north**

### **Hedgerow 16 (H16)**

4.3.17. H16 was an 'L' shape hedgerow located near the southern end of H15, it was approximately 325m in length surrounded by arable land. The hedge consisted predominantly of blackthorn, with hawthorn, ash, elder, dog rose, field maple, and three standard pedunculate oak trees also present. The ground flora associated was limited, with a thin (<1m) strip along either side consisting predominantly of nettle, with cleavers, greater plantain *Plantago major*, perennial rye-grass and dog's mercury *Mercurialis perennis* also recorded.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-16 - H16 facing south**

### **Hedgerow 17 (H17)**

4.3.18. H17 runs along a section of track on the periphery of arable land, approximately 145m in length, sections of the hedgerow were thin and leggy with other sections denser and more continuous. Hawthorn was the most frequently recorded species within the hedge, with hazel and field maple also abundant in sections, with ash, dog rose and mature pedunculate oak trees also present. A veteran pedunculate oak at the southern tip of the hedge was also present. Ground flora was present as a 1m wide strip either side of the hedge dominated by false oat grass, with other species including nettle, common knapweed, broom *Cytisus scoparius*, and bramble.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-17 - H17 facing south**

### **Hedgerow 18 (H18)**

4.3.19. H18 is immediately south of H17 along the southern section of the same track, approximately 170m in length and 2.5m wide by 2m tall. A dense and continuous hedge with a shallow dry ditch running along the western side. Species present included hawthorn, ash, elder, dog rose, field maple and a mature pedunculate oak tree within the centre. Ground flora associated with H18 is present as a thin 0.5m strip on the eastern edge, and a 2m strip including the ditch along the western edge. Species recorded in these strips included false oat grass, broad leaved dock, common knapweed, ragwort, nettle, and oxeye daisy *Leucanthemum vulgare*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-18 - H18 facing south**

### **Hedgerow 19 (H19)**

4.3.20. H19 runs east to west along the southern side of a track which is used for agricultural vehicles to access the arable land from the road. H19 is 220m in length and approximately 2.5m wide, hawthorn and blackthorn comprised the majority of the hedge with elder, dog rose, ash, field maple and a standard pedunculate oak tree also present. The ground flora associated with the hedge comprised a thin <1m strip along both sides, with false oat grass dominating, frequent nettle, creeping thistle, and scentless mayweed *Tripleurospermum inodorum*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-19 - H19 facing west**

### **Hedgerow 20 (H20)**

4.3.21. H20 is located to the south of H18 and H19 at the southern extent of the Scheme bordering a track at the periphery of arable land. A dense and intact hedgerow connected to a patch of scrub and trees at the south. Field maple dominated sections of the hedge with hawthorn and hazel also abundant in places, within lower abundances of elder, dog rose, blackthorn and ash. Ground flora present constituted a 1m strip dominated by false oat grass, with creeping thistle, common knapweed, scentless mayweed, cow parsley, nettle and bramble.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**





**Figure 4-20 - H20 facing south**

### **Hedgerow 21 (H21)**

4.3.22. H21 was located just beyond the southern extent of the River Wensum floodplain towards the north of the Scheme, running east to west and connected to Rose Carr woodland at its western extent. 220m in length the hedge comprised predominantly blackthorn and hawthorn, with infrequent occurrences of holly, goat willow *Salix caprea*, dogwood, and featured two mature pedunculate oak trees. The ground flora comprised an area of rough grassland to the north and a sown, set-aside, semi-improved grassland area to the south associated with arable land. Grassland species recorded included bird's-foot trefoil *Lotus corniculatus*, oxeye daisy, red fescue, common knapweed, mugwort *Artemisia vulgaris*, ribwort plantain, and false-oat grass, with accompanying species such as tufted vetch *Vicia cracca*, bristly ox-tongue *Helminthotheca echioides*, sainfoin *Onobrychis viciifolia* (considered to be sown within arable set aside), white clover, yarrow *Achillea millefolium*, and curled dock *Rumex crispus*.

- Important under the Hedgerow Regulations 1997: **No**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-21 - H21 facing west**

### **Hedgerow 22 (H22)**

4.3.23. H22 was a 520m long fragmented hedge which ran along the northern edge of Ringland Lane. Sections appeared more recent and less well established than others, Blackthorn was the most frequently recorded species with spindle and hawthorn also frequent. Gaps were a frequent component of the hedge often comprising bracken and bramble. A mature blackthorn tree was noted within the western third of the hedge. Ground flora was limited to a thin <1m roadside verge on the southern side and a similarly thin strip bordering an arable field to the north, dominated by perennial rye grass, with cow parsley, bracken, bramble and red fescue also present.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-22 - H22 facing east**

### **Hedgerow 23 (H23)**

4.3.24. H23 is not in the Scheme boundary but it runs parallel to it, along approximately 820m of the hedge's length. The majority of the hedge consisted of a double-row of shrubs with a path running through the centre. A notable feature of the hedge was a line of multiple, mature and veteran pedunculate oaks along the eastern side. The woody species which formed the majority of the hedgerow comprised blackthorn with some mature stands, hawthorn, field maple, elder and holly. Towards the northern extent, the hedge tapers and formed a single line of trimmed hawthorn and field maple. Ground flora was present between the double-row along the footpath and included cow parsley, red campion *Silene dioica*, garlic mustard *Alliaria petiolata*, bramble, white dead-nettle, bracken, cleavers, hogweed, cock's-foot, nettle, and greater stitchwort.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-23 - H23 facing south at the northern extent**

### **Hedgerow 24 (H24)**

- 4.3.25. H24 borders a 210m section of Ringland Lane west of H22. H24 is relatively tall at 4-5m along its length, comprising predominantly of blackthorn with occasional elder, spindle and small leaved lime *Tilia cordata*. Ground flora associated with the hedge was limited to a shallow short sward roadside verge approximately 1m wide, dominated by perennial rye-grass, with ribwort plantain and dandelion also abundant.
- 4.3.26. The hedgerow aligns with the parish boundary between Morton on the Hill and Weston Longville. As such it may be a historic hedgerow, under Section 1 of the 1997 regulation, pertaining to Archaeology and history.
- Important under the Hedgerow Regulations 1997: **Yes**
  - HPI under the NERC Act 2006: **Yes**
  - Veteran / Ancient: **No**



**Figure 4-24 - H24 facing east**

### **Hedgerow 25 (H25)**

4.3.27. H25 was a 380m long hedge which ran alongside the southern side of Fakenham Road, comprising a contiguous hawthorn hedge, with infrequent occurrences of elder, ash (including semi-mature trees) and pedunculate oak. Sycamore trees and saplings were also present along the length of the hedge. Ground flora present comprised the roadside verge with cock's-foot, teasel, nettle, yarrow, creeping thistle and field horsetail *Equisetum arvense*.

- Important under the Hedgerow Regulations 1997: **Yes (Schedule 6, section 4.4)**
- HPI under the NERC Act 2006: **Yes**
- Veteran / Ancient: **No**



**Figure 4-25 - H25 facing east**

## **4.4 Protected species**

- 4.4.1. Section 4.3 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) (Appendix B).
- 4.4.2. 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.
- 4.4.3. Data obtained from protected species surveys undertaken across the scheme 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 4-2 below shows additional hedgerows that have been identified as important using the information from the protected species surveys alone.

**Table 4-2 - Additional hedgerows which qualify as important under Schedule 6 (a)**

Hedgerow	Reason for qualification
H2	A single greenfinch <i>Chloris chloris</i> was observed along H2 during the first breeding bird survey in April 2021. Greenfinch are designated as a red list bird 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.
H3	Multiple linnet <i>Linaria cannabina</i> and yellowhammer <i>Emberiza citronella</i> were observed along H3 during the breeding bird survey visits and H3 is encompassed by both linnet and yellowhammer territories. Additionally, 200 starlings <i>Sturnus vulgaris</i> were observed along H3 during the December wintering bird survey. All three of these species are designated as red 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.
H4	Singing yellowhammer were recorded along H4 on three breeding bird survey visits and H4 is partially encompassed by a yellowhammer territory. Five redwing <i>Turdus iliacus</i> were observed within H4 during the January wintering bird survey. Yellowhammer are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, et al., 1990) and redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.
H5	<p>Two confirmed bat roosts within two mature trees in the western of H5. Bats are listed under Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p> <p>Several linnets were observed throughout the breeding bird surveys within H5 and this hedgerow is partially encompassed by a linnet territory. 21 redwings were also observed across the wintering bird surveys within H5. Linnet are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) and redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.</p>

Hedgerow	Reason for qualification
H6	<p>Multiple linnets were observed throughout the breeding bird surveys within H6 and this hedgerow is partially encompassed by a linnet territory. Three linnets were also observed during the November wintering bird survey. During the same wintering bird survey 15 redwing were also observed within H6. Linnet are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) and redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H7	<p>A single grass snake <i>Natrix helvetica</i> was recorded on the grassland strip on the arable margin near the base of the H7 in 2019 during a reptile survey. Grass snake is listed under Schedule 5 of the WCA 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p> <p>Singing yellowhammer were observed within H7 during the breeding bird surveys and this hedgerow is partially encompassed by a yellowhammer territory. Additionally, 100 starlings were observed roosting along H7 during the November wintering bird survey. Both yellowhammer and starling are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H8	<p>During the breeding bird surveys, two linnets were observed during the first April 2021 survey while singing yellowhammer were observed within H8 across multiple survey visits. The wintering bird surveys identified 20 redwing, two greenfinch and one yellowhammer within H8. Greenfinch, linnet and yellowhammer are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) and redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H11	<p>A single grass snake was recorded on the grassland strip on the arable margin near the base of H11 2020 during a reptile survey. Grass snake is listed under Schedule 5 of the WCA 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p>



Hedgerow	Reason for qualification
H12	<p>A single slow worm <i>Anguis fragilis</i> was recorded on the grassland strip on the arable margin near the base of H12 in 2020 during a reptile survey. Slow worm is listed under Schedule 5 of the WCA 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p> <p>A single greenfinch was observed within H12 during the second breeding bird visit in April 2021. Greenfinch are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H13	<p>Three slow worms were recorded on the grassland strip on the arable margin near the base of the hedge in 2020 during a reptile survey. Additionally, a bat roost was confirmed within a mature tree contained within the centre of the hedge. Slow worm is listed under Schedule 5 of the WCA 1981 which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H15	<p>Five linnets were observed within H15 during the November wintering bird survey. Linnet are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H17	<p>During the wintering bird surveys one redwing was observed, one yellowhammer and one red kite <i>Milvus milvus</i> were flushed from H17. Yellowhammer are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) and redwing and red kite are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.</p>
H18	<p>A single linnet was flushed from within H12 during the November wintering bird survey. Linnet are designated as a red list bird of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, &amp; Porter, 1990) specified in Schedule 6 of the Hedgerow Regulations 1997.</p>

Hedgerow	Reason for qualification
<b>H19</b>	Multiple yellowhammers were observed within H19 throughout the breeding bird surveys and H19 is partially encompassed by a yellowhammer territory. Yellowhammer are designated as a red list bird 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.
<b>H22</b>	A yellowhammer nest and multiple yellowhammer birds were observed within H22 during the breeding bird surveys. H22 is also partially encompassed by a yellowhammer territory. Yellowhammer are designated as a red list bird 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.
<b>H23</b>	During the breeding bird surveys multiple yellowhammers were observed within H23 and this hedgerow is partially encompassed by a yellowhammer territory. A single greenfinch as also recorded within H23 on the second breeding bird survey visit. During the wintering bird surveys 60 redwing, 16 starling and a single linnet were observed within H23. Greenfinch, linnet, starling and yellowhammer are designated as red listed birds of conservation concern (Stanbury, et al., 2021) which supersedes the Red Data Birds in Britain (Batten, Bibby, Clement, Elliott, & Porter, 1990) and redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, specified in Schedule 6 of the Hedgerow Regulations 1997.
<b>H25</b>	During the November wintering bird survey, 20 redwings were flushed from H25. Redwing are listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981, which is one of the items of statute specified in Schedule 6 of the Hedgerow Regulations 1997.

- 4.4.4. Hedgerows were checked against desk study records of protected/notable species occurring on lists mentioned in the Hedgerow Regulations for plants (within the last ten years from the relevant date) and for other species (within the last five years of the relevant date, which is defined as the date the biological record centre information was received).
- 4.4.5. None of the hedgerows supporting desk study records of plant or animal species listed in sub-paragraph (3) of the Hedgerow Regulations. None of the surveyed hedges qualify as important hedgerows on this basis.
- 4.4.6. During the invertebrate surveys, no species categorised as “endangered”, “extinct”, “rare” or “vulnerable” were recorded in/on any hedgerow within the Survey Area. Therefore, none of the surveyed hedgerow qualify as important hedgerows on this basis.

## 5 References

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### 5.1 Project references

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### 5.2 Technical references

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## Appendix A – Hedgerow Map (see separate document)

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## Appendix B – Summary of Hedgerow Regulations 1997

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### Archaeology and history

- 1. The hedgerow marks the boundary, or part of the boundary, of at least one historic parish or township; and for this purpose “historic” means existing before 1850.
- 2. The hedgerow incorporates an archaeological feature which is—
  - (a) included in the schedule of monuments compiled by the Secretary of State under section 1 (schedule of monuments) of the Ancient Monuments and Archaeological Areas Act 1979(7); or
  - (b) recorded at the relevant date in a Sites and Monuments Record.
- 3. The hedgerow—
  - (a) is situated wholly or partly within an archaeological site included or recorded as mentioned in paragraph 2 or on land adjacent to and associated with such a site; and
  - (b) is associated with any monument or feature on that site.
- 4. The hedgerow—
  - (a) marks the boundary of a pre-1600 AD estate or manor recorded at the relevant date in a Sites and Monuments Record or in a document held at that date at a Record Office; or
  - (b) is visibly related to any building or other feature of such an estate or manor.
- 5. The hedgerow—
  - (a) is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure Acts(8); or
  - (b) is part of, or visibly related to, any building or other feature associated with such a system, and that system—
    - (i) is substantially complete; or
    - (ii) is of a pattern which is recorded in a document prepared before the relevant date by a local planning authority, within the meaning of the 1990 Act(9), for the purposes of development control within the authority’s area, as a key landscape characteristic.

### Wildlife and landscape

- 6.—(1) The hedgerow—
  - (a) contains species listed or categorised as mentioned in sub-paragraph (3); or
  - (b) is referred to in a record held immediately before the relevant date by a biological record centre maintained by, or on behalf of, a local authority within the meaning of the Local Government Act 1972(10), and in a form recognised by the Nature Conservancy Council for England, the Countryside Council for Wales(11) or the Joint Nature Conservation Committee(12), as having contained any such species—

- (i) in the case of animals and birds, subject to sub-paragraph (2), within the period of five years immediately before the relevant date.
- (ii) in the case of plants, subject to sub-paragraph (2), within the period of ten years immediately before the relevant date;
- (2) Where more than one record referable to the period of five or, as the case may be, ten years before the relevant date is held by a particular biological record centre, and the more (or most) recent record does not satisfy the criterion specified in sub-paragraph (1)(b), the criterion is not satisfied (notwithstanding that an earlier record satisfies it).
- (3) The species referred to in sub-paragraph (1) are those—
  - (a) listed in Part I (protection at all times) of Schedule 1 (birds which are protected by special penalties), Schedule 5 (animals which are protected) or Schedule 8 (plants which are protected) to the Wildlife and Countryside Act 1981(13);
  - (b) categorised as a declining breeder (category 3) in “Red Data Birds in Britain” Batten LA, Bibby CJ, Clement P, Elliott GD and Porter RF (Eds.), published in 1990 for the Nature Conservancy Council and the Royal Society for the Protection of Birds (ISBN 0 85661 056 9); or
  - (c) categorised as “endangered”, “extinct”, “rare” or “vulnerable” in Britain in a document mentioned in sub-paragraph (4).
- (4) The documents referred to in sub-paragraph (3)(c) are—
  - (a) of the books known as the British Red Data Books:
    - 1. “Vascular Plants” Perring FH and Farrell L, 2nd Edition, published in 1983 for the Royal Society for Nature Conservation (ISBN 0 902484 04 4);
    - 2. “Insects” Shire DB (Ed.), published in 1987 for the Nature Conservancy Council (ISBN 0 86139 380 5); and
    - 3. “Invertebrates other than insects” Bratton JH (Ed.), published in 1991 for the Joint Nature Conservation Committee (ISBN 1 873701 00 4); and
  - (b) of the books known as the Red Data Books of Britain and Ireland:
    - “Stoneworts” Stewart NF and Church JM, published in 1992 for the Joint Nature Conservation Committee (ISBN 1 873701 24 1).
- 7.—(1) Subject to sub-paragraph (2), the hedgerow includes—
  - (a) at least 7 woody species;
  - (b) at least 6 woody species, and has associated with it at least 3 of the features specified in sub-paragraph (4);
  - (c) at least 6 woody species, including one of the following—
    - black-poplar tree (*Populus nigra ssp betulifolia*);
    - large-leaved lime (*Tilia platyphyllos*);
    - small-leaved lime (*Tilia cordata*);
    - wild service-tree (*Sorbus torminalis*); or

- (d) at least 5 woody species, and has associated with it at least 4 of the features specified in sub-paragraph (4),
- and the number of woody species in a hedgerow shall be ascertained in accordance with sub-paragraph (3).
- (2) Where the hedgerow in question is situated wholly or partly in the county (as constituted on 1st April 1997) of the City of Kingston upon Hull, Cumbria, Darlington, Durham, East Riding of Yorkshire, Hartlepool, Lancashire, Middlesbrough, North East Lincolnshire, North Lincolnshire, Northumberland, North Yorkshire, Redcar and Cleveland, Stockton-on-Tees, Tyne and Wear, West Yorkshire or York(14), the number of woody species mentioned in paragraphs (a) to (d) of sub-paragraph (1) is to be treated as reduced by one.
- (3) For the purposes of sub-paragraph (1) (and those of paragraph 8(b))—
  - (a) where the length of the hedgerow does not exceed 30 metres, count the number of woody species present in the hedgerow;
  - (b) where the length of the hedgerow exceeds 30 metres, but does not exceed 100 metres, count the number of woody species present in the central stretch of 30 metres;
  - (c) where the length of the hedgerow exceeds 100 metres, but does not exceed 200 metres, count the number of woody species present in the central stretch of 30 metres within each half of the hedgerow and divide the aggregate by two;
  - (d) where the length of the hedgerow exceeds 200 metres, count the number of woody species present in the central stretch of 30 metres within each third of the hedgerow and divide the aggregate by three.
- (4) The features referred to in sub-paragraph (1)(b) and (d) (which include those referred to in paragraph 8(b)) are—
  - (a) a bank or wall which supports the hedgerow along at least one half of its length;
  - (b) gaps which in aggregate do not exceed 10% of the length of the hedgerow;
  - (c) where the length of the hedgerow does not exceed 50 metres, at least one standard tree;
  - (d) where the length of the hedgerow exceeds 50 metres but does not exceed 100 metres, at least 2 standard trees;
  - (e) where the length of the hedgerow exceeds 100 metres, such number of standard trees (within any part of its length) as would when averaged over its total length amount to at least one for each 50 metres;
  - (f) at least 3 woodland species within one metre, in any direction, of the outermost edges of the hedgerow;
  - (g) a ditch along at least one half of the length of the hedgerow;
  - (h) connections scoring 4 points or more in accordance with sub-paragraph (5);
  - (i) a parallel hedge within 15 metres of the hedgerow.

- (5) For the purposes of sub-paragraph (4)(h) a connection with another hedgerow scores one point and a connection with a pond or a woodland in which the majority of trees are broad-leaved trees scores 2 points; and a hedgerow is connected with something not only if it meets it but also if it has a point within 10 metres of it and would meet it if the line of the hedgerow continued.
- 8.The hedgerow—
  - (a) is adjacent to a bridleway or footpath, within the meaning of the Highways Act 1980(15), a road used as a public path, within the meaning of section 54 (duty to reclassify roads used as public paths) of the Wildlife and Countryside Act 1981(16), or a byway open to all traffic, within the meaning of Part III of the Wildlife and Countryside Act 1981(17), and
  - (b) includes at least 4 woody species, ascertained in accordance with paragraph 7(3) and at least 2 of the features specified in paragraph 7(4)(a) to (g).

**Table B-1 – List of flora relating to Schedule 7 (4) (f)**

Woodland species	Scientific name
Barren strawberry	<i>Potentilla sterilis</i>
Bluebell	<i>Hyacinthoides non-scriptus</i>
Broad buckler fern	<i>Dryopteris dilatata</i>
Broad-leaved helleborine	<i>Epipactis helleborine</i>
Bugle	<i>Ajuga reptans</i>
Common cow-wheat	<i>Melampyrum pratense</i>
Common dog violet	<i>Viola riviniana</i>
Common polypody	<i>Polypodium vulgare</i>
Dog’s mercury	<i>Mercurialis perennis</i>
Early dog violet	<i>Viola reichenbachiana</i>
Early purple orchid	<i>Orchis mascula</i>
Enchanter’s nightshade	<i>Circaea lutetiana</i>
Giant fescue	<i>Festuca gigantea</i>
Goldilocks buttercup	<i>Ranunculus auricomus</i>
Great bell-flower	<i>Campanula latifolia</i>
Greater wood-rush	<i>Luzula sylvatica</i>
Hairy brome	<i>Bromus ramosus</i>
Hairy woodrush	<i>Luzula pilosa</i>



Woodland species	Scientific name
Hard fern	<i>Blechnum spicant</i>
Hard shield fern	<i>Polystichum aculeatum</i>
Hart's tongue	<i>Asplenium scolopendrium</i>
Heath bedstraw	<i>Galium saxatile</i>
Herb paris	<i>Paris quadrifolia</i>
Herb-robert	<i>Geranium robertianum</i>
Lady fern	<i>Athyrium filix-femina</i>
Lords-and-ladies	<i>Arum maculatum</i>
Male fern	<i>Dryopteris filix-mas</i>
Moschatel	<i>Adoxa moschatellina</i>
Narrow buckler-fern	<i>Dryopteris carthusiana</i>
Nettle-leaved bell-flower	<i>Campanula trachelium</i>
Oxlip	<i>Primula elatior</i>
Pignut	<i>Conopodium majus</i>
Primrose	<i>Primula vulgaris</i>
Ramsons	<i>Allium ursinum</i>
Sanicle	<i>Sanicula europaea</i>
Scaly male-fern	<i>Dryopteris affinis</i>
Small cow-wheat	<i>Melampyrum sylvaticum</i>
Soft shield fern	<i>Polystichum setiferum</i>
Sweet violet	<i>Viola odorata</i>
Toothwort	<i>Lathraea squamaria</i>
Tormentil	<i>Potentilla erecta</i>
Wild strawberry	<i>Fragaria vesca</i>
Wood anemone	<i>Anemone nemorosa</i>
Wood avens/Herb bennet	<i>Geum urbanum</i>
Wood false-brome	<i>Brachypodium sylvaticum</i>
Wood horsetail	<i>Equisetum sylvaticum</i>
Wood meadow-grass	<i>Poa nemoralis</i>
Wood melick	<i>Melica uniflora</i>

Woodland species	Scientific name
Wood millet	<i>Millium effusum</i>
Wood sage	<i>Teucrium scorodonia</i>
Wood sedge	<i>Carex sylvatica</i>
Wood sorrel	<i>Oxalis acetosella</i>
Wood speedwell	<i>Veronica montana</i>
Wood spurge	<i>Euphorbia amygdaloides</i>
Woodruff	<i>Galium odoratum</i>
Yellow archangel	<i>Lamiastrum galeobdolon</i>
Yellow pimpernel	<i>Lysimachia nemorum</i>

**Table B-2 – List of flora relating to Schedule 7 and 8**

Woody Species	Scientific name
Alder	<i>Alnus glutinosa</i>
Apple, crab	<i>Malus sylvestris</i>
Ash	<i>Fraxinus excelsior</i>
Aspen	<i>Populus tremula</i>
Beech	<i>Fagus sylvatica</i>
Birch, downy	<i>Betula pubescens</i>
Birch, silver	<i>Betula pendula</i>
Black-poplar	<i>Populus nigra sub-species betulifolia</i>
Blackthorn	<i>Prunus spinosa</i>
Box	<i>Buxus sempervirens</i>
Broom	<i>Cytisus scoparius</i>
Buckthorn	<i>Rhamnus cathartica</i>
Buckthorn, alder	<i>Frangula alnus</i>
Butcher's-broom	<i>Ruscus aculeatus</i>
Cherry, bird	<i>Prunus padus</i>
Cherry, wild	<i>Prunus avium</i>
Cotoneaster, wild	<i>Cotoneaster integerrimus</i>
Currant, downy	<i>Ribes spicatum</i>
Currant, mountain	<i>Ribes alpinum</i>
Dogwood	<i>Cornus sanguinea</i>

Woody Species	Scientific name
Elder	<i>Sambucus nigra</i>
Elm	<i>Ulmus</i> species
Gooseberry	<i>Ribes uva-crispa</i>
Gorse	<i>Ulex europaeus</i>
Gorse, dwarf	<i>Ulex minor</i>
Gorse, western	<i>Ulex gallii</i>
Guelder rose	<i>Viburnum opulus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hawthorn, midland	<i>Crataegus laevigata</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Juniper, common	<i>Juniperus communis</i>
Lime, large-leaved	<i>Tilia platyphyllos</i>
Lime, small-leaved	<i>Tilia cordata</i>
Maple, field	<i>Acer campestre</i>
Mezereon	<i>Daphne mezereum</i>
Pedunculate oak, pedunculate	<i>Quercus robur</i>
Pedunculate oak, sessile	<i>Quercus petraea</i>
Osier	<i>Salix viminalis</i>
Pear, Plymouth	<i>Pyrus cordata</i>
Pear, wild	<i>Pyrus pyraster</i>
Poplar, grey	<i>Populus x canescens</i>
Poplar, white	<i>Populus alba</i>
Privet, wild	<i>Ligustrum vulgare</i>
Rose	<i>Rosa</i> species
Rowan	<i>Sorbus aucuparia</i>
Sea-buckthorn	<i>Hippophae rhamnoides</i>
Service-tree, wild	<i>Sorbus torminalis</i>
Spindle	<i>Euonymus europaeus</i>
Spurge-laurel	<i>Daphne laureola</i>
Walnut	<i>Juglans regia</i>



<b>Woody Species</b>	<b>Scientific name</b>
Wayfaring-tree	<i>Viburnum lantana</i>
Whitebeam	<i>Sorbus species</i>
Willow	<i>Salix species</i>
Yew	<i>Taxus baccata</i>



## **Appendix C – Ancient Hedgerow Report (see separate document)**

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## Appendix D - Results

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**Key:**

HTS – Hedgerow Trees Semi-mature

HTM - Hedgerow Trees Mature

HTV – Hedgerow Trees Veteran

HTD – Hedgerow Trees Dead

HTC – Hedgerow Trees Coppice

HTP - Hedgerow Trees Pollard

**Hedgerow Reference: H1**

**Length (m):** 50m

**Grid Reference:** TG 14544 15528

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7



Woody species in accordance with Schedule 7 and 8	30m Sample 1	30m Sample 2	30m Sample 3	HTS	HTM	HTV	HTD	HTC	HTP	Other species
Pedunculate oak	Yes	No	No	Yes	No	No	No	No	No	Tree of heaven
Hawthorn	Yes	No	No	No	No	No	No	No	No	Sycamore
Elder	Yes	No	No	No	No	No	No	No	No	bramble
Field maple	Yes	No	No	No	No	No	No	No	No	None

Associated features:

Result: No

8 Result: No

**Important Hedgerow:** No

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H2**

**Length (m):** 90m

**Grid Reference:** TG 13955 15802

**Hedgerow Regulations Criteria:**

1 Result: No

2 Result: No

3 Result: No

4 Result: No

5 Result: No

6 Result: Yes

7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Leyland cypress	Yes	Yes	No	No	Yes	No	No	No	No	None

Associated features:

Result:

8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No





**Hedgerow Reference: H3**

**Length (m):** 300m

**Grid Reference:** TG 11846 14484

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Plum	Yes	No	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	No	No	No	No	No	No	No	None
Spindle	No	Yes	No	No	No	No	No	No	No	None
Dogwood	No	Yes	Yes	No	No	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H4**

**Length (m):** 300m

**Grid Reference:** TG 11847 14483

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	No	Yes	No	Yes	No	No	No	No	Bramble
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Ash	No	No	Yes	No	Yes	No	No	Yes	No	None
Holly	No	Yes	No	No	Yes	No	No	No	No	None
Field maple	No	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(e) and 4(g)

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)



**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H5**

**Length (m):** 500m

**Grid Reference:** TG 11771 14334

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	Yes	Yes	No	Yes	No	No	No	No	Bramble
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Hornbeam	No	Yes	No	No	No	No	No	No	No	None
Dogwood	Yes	Yes	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(i), 6 (a)\*

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)



**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H6**

**Length (m):** 500m

**Grid Reference:** TG 11650 14390

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	Yes	Yes	No	Yes	No	No	No	No	Horse chestnut
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	Honeysuckle
Ash	No	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Spindle	Yes	Yes	No	No	No	No	No	No	No	None
Hazel	Yes	No	No	No	No	No	No	No	No	None
Holly	No	Yes	Yes	Yes	No	No	No	No	No	None
Plum	Yes	No	No	No	No	No	No	No	No	None
Beech	No	No	Yes	Yes	No	No	No	No	No	None



Associated features: 4(b), 4(i), 4(e)

Result: No

8 Result: No

**Important Hedgerow: Yes**

**Ancient / Veteran Hedgerow: No**





**Hedgerow Reference: H7**

**Length (m):** 530m

**Grid Reference:** TG 11534 14374

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	No	Yes	Yes	No	Yes	No	No	No	No	Sycamore
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Dogwood	No	No	Yes	No	No	No	No	No	No	None
Elder	Yes	No	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Holly	No	Yes	Yes	Yes	No	No	No	No	No	None

Associated features: 6 (a)\*

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H8**

**Length (m):** 400m

**Grid Reference:** TG 11442 13946

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	No	Yes	Yes	No	No	Yes	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Hazel	Yes	No	No	No	No	No	No	No	No	None
Elder	Yes	No	No	No	No	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H9**

**Length (m):** 550m

**Grid Reference:** TG 11193 14166

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	No	Yes	No	No	Yes	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Hazel	Yes	No	No	No	No	No	No	No	No	None
Elder	Yes	yes	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Elm	Yes	No	No	No	No	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No



**Important Hedgerow:** No

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H10**

**Length (m):** 600m

**Grid Reference:** TG 10928 14039

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	No	No	Yes	No	Yes	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Ash	No	No	Yes	No	No	No	No	No	No	None
Elder	Yes	yes	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Hornbeam	Yes	Yes	No	No	No	No	No	No	No	None
Holly	No	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(i)

Result: No

- 8 Result: No



**Important Hedgerow:** No

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H11**

**Length (m):** 630m

**Grid Reference:** TG 10928 14039

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	Yes	Yes	No	Yes	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Ash	No	No	Yes	No	No	No	No	No	No	None
Elder	No	Yes	No	No	No	No	No	No	No	None
Field maple	No	Yes	Yes	No	No	No	No	No	No	None
Hornbeam	No	Yes	No	No	No	No	No	No	No	None
Holly	No	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(i),4(e) and 6 (a)\*

Result: No

- 8 Result: No





**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H12**

**Length (m):** 400m

**Grid Reference:** TG 10889 13525

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	Yes	Yes	No	Yes	No	No	No	No	None
Hawthorn	No	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Hazel	Yes	No	No	No	No	No	No	No	No	None
Dog rose	No	No	Yes	No	No	No	No	No	No	None

Associated features: 4(e) and 6 (a)\*

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)



**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H13**

**Length (m):** 500m

**Grid Reference:** TG 10346 13346

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Pedunculate oak	Yes	No	Yes	No	Yes	Yes	No	No	No	White bryony
Hawthorn	Yes	Yes	Yes	No	Yes	No	Yes	No	No	None
Blackthorn	No	Yes	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	Yes	No	No	No	No	None
Elder	No	Yes	Yes	No	No	No	No	No	No	None

Associated features: 6 (a)\*

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H14**

**Length (m):** 400m

**Grid Reference:** TG 10196 13171

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	No	Yes	No	No	Yes	No	No	Yes	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Dog rose	No	No	Yes	No	Yes	No	No	No	No	None
Elder	Yes	Yes	No	No	No	No	No	No	No	None

Associated features: 4(b)

Result: No

- 8 Result: No

**Important Hedgerow:** No



**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H15**

**Length (m):** 530m

**Grid Reference:** TG 10243 12980

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	Yes	Yes	No	No	No	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Dog rose	Yes	No	Yes	No	No	No	No	No	No	None
Elder	Yes	Yes	No	No	No	No	No	No	No	None
Hazel	Yes	Yes	No	No	No	No	No	No	No	None
Pedunculate oak	No	Yes	Yes	No	Yes	No	No	No	No	None
Holly	Yes	No	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	Yes	No	No	No	No	None

Associated features: 4(b), 4(g), 4(h)





Result: Yes

8 Result: No

**Important Hedgerow: Yes**

**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H16**

**Length (m):** 325m

**Grid Reference:** TG 10110 12743

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	Yes	Yes	No	Yes	No	No	No	Yes	No	Dogs mercury
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	False brome
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Dog rose	No	No	Yes	No	No	No	No	No	No	None
Elder	Yes	Yes	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	No	Yes	No	No	No	No	No	None
Pedunculate oak	Yes	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(b)



Result: No

8 Result: No

**Important Hedgerow: No**

**Ancient / Veteran Hedgerow: No**



**Hedgerow Reference: H17**

**Length (m):** 145m

**Grid Reference:** TG 09947 12814

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	Yes	No	No	Yes	No	No	No	No	No	Broom
Hawthorn	Yes	Yes	No	No	No	No	No	No	No	None
Blackthorn	No	Yes	No	No	No	No	No	No	No	None
Dog rose	Yes	No	No	No	No	No	No	No	No	None
Hazel	No	Yes	No	No	No	No	No	No	No	None
Field maple	Yes	No	No	No	No	No	No	No	No	None
Pedunculate oak	No	Yes	No	No	Yes	Yes	No	No	No	None

Associated features: 4(e)

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H18**

**Length (m):** 170m

**Grid Reference:** TG 09971 12648

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	Yes	No	No	No	No	No	No	No	No	None
Hawthorn	Yes	Yes	No	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	No	No	No	No	No	No	No	None
Dog rose	No	Yes	No	No	No	No	No	No	No	None
Elder	Yes	No	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	No	No	No	No	No	No	No	None
Pedunculate oak	Yes	No	No	No	No	Yes	No	No	No	None

Associated features: 4(e),4(g)

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H19**

**Length (m):** 220m

**Grid Reference:** TG 09849 12509

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	Yes	No	Yes	No	No	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Dog rose	No	No	Yes	No	No	No	No	No	No	None
Elder	No	Yes	No	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Pedunculate oak	No	No	Yes	No	Yes	No	No	No	No	None

Associated features: 4(b)

Result: No

- 8 Result: No





**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H20**

**Length (m):** 310m

**Grid Reference:** TG 10023 12465

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Ash	No	No	Yes	Yes	No	No	No	No	No	None
Hawthorn	No	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	No	Yes	Yes	No	No	No	No	No	No	None
Dogwood	Yes	Yes	No	No	No	No	No	No	No	None
Hazel	Yes	Yes	Yes	No	No	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	No	No	No	No	No	None
Pedunculate oak	No	Yes	No	No	Yes	No	No	No	No	None

Associated features: 4(e),4(h)

Result: No

- 8 Result: No



**Important Hedgerow:** No

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H21**

**Length (m):** 220m

**Grid Reference:** TG 13679 15264

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Willow	No	No	Yes	No	No	No	No	No	No	None
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Blackthorn	Yes	Yes	No	No	No	No	No	No	No	None
Elder	Yes	No	No	No	No	No	No	No	No	None
Holly	Yes	No	No	No	No	No	No	No	No	None
Dogwood	No	Yes	Yes	No	No	No	No	No	No	None
Pedunculate oak	No	Yes	Yes	No	Yes	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No



**Important Hedgerow:** No

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H22**

**Length (m):** 520m (with gaps)

**Grid Reference:** TG 12484 15142

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Elder	Yes	No	No	No	No	No	No	No	No	Bracken
Spindle	Yes	Yes	No	No	No	No	No	No	No	Bramble
Blackthorn	Yes	Yes	Yes	No	Yes	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H23**

**Length (m):** 850m

**Grid Reference:** TG 11818 14778

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Elder	No	Yes	No	No	No	No	No	No	No	Bracken
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	Bramble
Blackthorn	Yes	Yes	No	No	Yes	No	No	No	No	None
Field maple	Yes	Yes	Yes	No	Yes	No	No	No	No	None
Hazel	Yes	Yes	No	No	No	No	No	No	No	None
Pedunculate oak	Yes	Yes	No	No	Yes	Yes	Yes	No	No	None

Associated features: 4(e), 4(i), (4h)

Result: No

- 8 Result: No



**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No





**Hedgerow Reference: H24**

**Length (m):** 210m

**Grid Reference:** TG 12178 15307

**Hedgerow Regulations Criteria:**

- 1 Result: Yes
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: No
- 7

<b>Woody species in accordance with Schedule 7 and 8</b>	<b>30m Sample 1</b>	<b>30m Sample 2</b>	<b>30m Sample 3</b>	<b>HTS</b>	<b>HTM</b>	<b>HTV</b>	<b>HTD</b>	<b>HTC</b>	<b>HTP</b>	<b>Other species</b>
Elder	Yes	Yes	Yes	No	No	No	No	No	No	Bracken
Spindle	Yes	Yes	Yes	No	No	No	No	No	No	Bramble
Blackthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Small leaved lime	Yes	Yes	Yes	Yes	No	No	No	No	No	None

Associated features:

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on archaeological and historical criteria)

**Ancient / Veteran Hedgerow:** No



**Hedgerow Reference: H25**

**Length (m):** 380m

**Grid Reference:** TG 14258 15589

**Hedgerow Regulations Criteria:**

- 1 Result: No
- 2 Result: No
- 3 Result: No
- 4 Result: No
- 5 Result: No
- 6 Result: Yes
- 7

Woody species in accordance with Schedule 7 and 8	30m Sample 1	30m Sample 2	30m Sample 3	HTS	HTM	HTV	HTD	HTC	HTP	Other species
Elder	Yes	Yes	No	No	No	No	No	No	No	Sycamore
Hawthorn	Yes	Yes	Yes	No	No	No	No	No	No	None
Ash	Yes	Yes	Yes	No	No	No	No	No	No	None
Pedunculate oak	No	Yes	Yes	No	No	No	No	No	No	None

Associated features: 4(e)

Result: No

- 8 Result: No

**Important Hedgerow:** Yes (based on presence of protected species only)

**Ancient / Veteran Hedgerow:** No



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