

July 2014

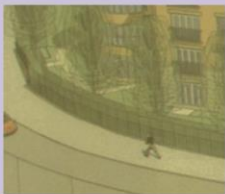
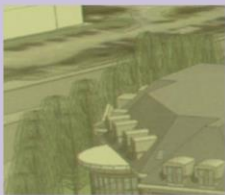
Land west of Chesterton

Ecological Appraisal

Prepared by
CSa Environmental Planning

On behalf of
Taylor Wimpey UK Ltd

Report No: CSa/2325/02



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EXECUTIVE SUMMARY

A residential development of up to 45 dwellings is proposed on land west of Chesterton in Oxfordshire. This Ecological Appraisal has been undertaken to present the findings of a desk study, an extended Phase 1 habitat survey and hedgerow assessments completed by CSa Environmental Planning in April and May 2014. The ecological features have been valued from the findings.

The majority of the site comprises arable land and improved grassland, which are low grade widespread habitats considered to be of low ecological value.

Habitats of ecological value at the Local and Site level comprise native hedgerows with associated trees, long grassland margins and dry ditch. The retention, protection and enhancement of such habitats is recommended wherever possible, particularly the more ecologically valuable hedges, considered to be H1, H2, H3 and H7 (see Habitats Plan in Appendix C).

The loss of sections of the central hedgerow that divides the fields (H4) is anticipated to facilitate development. This hedgerow is of relatively low value and it is considered that its loss could be adequately mitigated through improvements to the northern boundary hedge (H6).

Further surveys for the following protected/notable species are recommended:

- **Bat roosting**- Ground-based tree assessment (any time of year);
- **Bat commuting and foraging**- Three transect and static detector surveys (May to September);
- **Birds** – Four breeding bird surveys (mid-March to mid-July);
- **Reptiles** – Seven visit presence/absence survey (April to September)
- **Great Crested Newt** - Pond assessment (HSI) and subsequent four visit presence/absence surveys and (mid-March to mid-June, with at least half of surveys undertaken between mid-April and mid-May). If present, two additional visits within the same period to gain an understanding of population size.

Broad recommendations for ecological avoidance, mitigation and enhancement measures are discussed herein. The specific measures to be implemented alongside development should be designed and detailed on the basis of the results from the further survey work recommended.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSa Environmental Planning on behalf of Taylor Wimpey UK Ltd. It sets out the findings of an Ecological Appraisal of 2.79ha of land west of Chesterton, Oxfordshire (the Site) to inform an outline planning application for residential development.
- 1.2 This Ecological Appraisal aims to:
- undertake a desk search for relevant biological records and assess their significance;
 - review the site in relation to its wider ecological context;
 - describe and map the habitats present;
 - identify potential protected or notable species issues;
 - present the findings of detailed hedgerow assessments;
 - evaluate sites, habitats and species in line with standard methodologies;
 - assess potential impacts on these features; and
 - make initial recommendations for mitigation and biodiversity enhancement measures.
- 1.3 This report has been prepared with due consideration to best-practice guidance and methodologies including those of the Institute of Ecology and Environmental Management (IEEM) (2012)¹ and BS 42020: Biodiversity – Code of practice for planning and development. .
- 1.4 The Site lies at grid reference SP 5580 2139 to the west of Chesterton. It comprises two fields; the larger field to the south is arable and the northern field comprises sheep-grazed pasture.

¹ IEEM (2012) *Guidelines for Preliminary Ecological Appraisal* (second edition)
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2.0 LEGISLATION AND PLANNING POLICY

Legislation

- 2.1 There are several pieces of legislation relating to wildlife and biodiversity. Those of particular relevance to ecology and development are the Conservation of Habitats and Species Regulations 2010 (as amended), which enacts the Habitats and Birds Directives² into UK law, the Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act 1992. In addition, the Natural Environment and Rural Communities (NERC) Act 2006 sets the requirement for planning authorities to consider impacts on “*species of principal importance for the conservation of biodiversity*” when determining planning applications. This is described under ‘Biodiversity and Priority Species’ below. These pieces of legislation and the species and habitats they afford protection to have been considered, as appropriate to the development site, in the production of this report.
- 2.2 Natural England Standing Advice³ regarding protected species aims to support Local Authorities and forms a material consideration in determining applications in the same way as any individual response received from Natural England following consultation (except where applications require EIA or may affect a Natura 2000 site).

Biodiversity and Priority Species

- 2.3 The NERC Act 2006 Section 40(1) states that each public authority “*must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*”. This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications, with particular regard to the Section 41 list of 56 habitats and 943 species of principal importance, even where they are not covered by other legislation. The S41 list was taken forward for action under the UK BAP (first published in 1994). The UK BAP has now been superseded by the Biodiversity 2020 Strategy⁴ (published August 2011), which continues to prioritise the S41 list, setting national targets for the period to 2020, and the UK Post-2010 Biodiversity Framework⁵ (published July 2012), which shows how these contribute to targets at the European level. Whilst BAP are therefore no longer formally recognised these can still be of use in meeting targets for nature conservation. Many of the tools and resources originally developed for the BAP remain in use, such as background information BAP priority species and habitats, which still form the basis of work at national level.

² Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, and Council Directive 79/409/EEC on the Conservation of Wild Birds, respectively.

³ www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/standingadvice/default.aspx

⁴ Defra (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*. Defra, London

⁵ JNCC and Defra (2012) *UK Post-2010 Biodiversity Framework* (on behalf of the Four Countries' Biodiversity Group). July 2012.

National Planning Policy

2.4 The National Planning Policy Framework (2012)⁶ (NPPF) sets out the government planning policies for England and how they should be applied. With regards to ecology and biodiversity, Chapter 11: Conserving and Enhancing the Natural Environment, paragraph 109, states that the planning system and planning policies should:

- minimise impacts on, and provide net gains in, biodiversity where possible, “*contributing to the Government’s commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*”; and
- recognise the wider benefits of ecosystem services.

2.5 Under these aims, paragraph 117 states the need to plan for biodiversity at a landscape scale, linked to national and local targets. Paragraph 118 sets out the principles that local planning authorities should apply when determining planning applications:

- refuse planning permission if significant harm cannot be avoided, adequately mitigated, or, as a last resort, compensated for;
- encourage opportunities to incorporate biodiversity in and around developments;
- permission should not normally be permitted where an adverse effect on a nationally designated Site of Special Scientific Interest (SSSI) is likely, either individually or in combination with other developments; and
- refuse planning permission if development will result in the loss or deterioration of irreplaceable habitats, such as ancient woodland and the aged or veteran trees, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

Local Planning Policy

2.6 Cherwell District Council (‘CDC’) have prepared their Local Plan in accordance with the National Guidance set out in the NPPF. The Submission Local Plan was submitted to the Secretary of State for approval in January 2014. Until such time as this Local Plan is formally adopted, the saved policies contained in the adopted Cherwell Local Plan (1996) remain relevant in so far as they are consistent with the NPPF. In addition, the Council published the non-statutory Local Plan in September 2011, which although not formally adopted has been approved as an interim document prior to completion of the new development plan.

2.7 Policies relating to ecology and nature conservation within both of these documents are summarised in Table 1 below.

⁶ Department for Communities and Local Government (2012) National Planning Policy Framework
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Table 1: Summary of local planning policy relevant to nature conservation

Saved Policies from the Cherwell District Local Plan 1996	
C1 Protection of sites of nature conservation value	<ul style="list-style-type: none"> -The council will seek to promote the interests of nature conservation. -Development which would result in damage to or loss of sites of Special Scientific Interest or other areas of designated wildlife or scientific importance will not normally be permitted. -The council will seek to ensure the protection of sites of local nature conservation value. -The potential adverse effect of development on such sites will be a material consideration in determining planning applications.
C2 Development affecting protected species	<ul style="list-style-type: none"> -Development which would adversely affect any species protected by Schedule 1, Schedule 5 and Schedule 8 of the 1981 Wildlife and Countryside Act, and by the E.C Habitats Directive 1992 will not normally be permitted.
C4 Creation of new habitats	<ul style="list-style-type: none"> -The council will seek to promote the creation of new habitats. -In urban areas the council will promote the interests of nature conservation within the context of new development and will establish or assist with the establishment of ecological and nature conservation areas, where such areas would further the opportunity for environmental education and passive recreation and would not conflict with other policies in the plan.
Saved Policies from the Non Statutory Cherwell Plan 2011	
EN22 Features of Nature Conservation Value	<ul style="list-style-type: none"> -Development proposals will be expected to incorporate features of nature conservation value within the site. -Features of value should be retained and enhanced wherever possible. -The use of planning conditions or planning obligations will be sought to secure their protection and management, or the provision of compensatory measures where appropriate.
EN23 Ecological Surveys	<ul style="list-style-type: none"> -Before determining an application for development which may affect a known or potential site of nature conservation value, applicants will be required to submit an ecological survey to establish the likely impact on the nature conservation resource.
EN24 Protection of Sites and Species	<ul style="list-style-type: none"> -The council will seek to promote the interests of nature conservation through the control of development. Proposals which would result in damage to or loss of a site of ecological value will not be permitted unless: <ol style="list-style-type: none"> (1) For internationally important sites, there is no alternative solution and there are imperative reasons of over-riding public interest for the development (2) For nationally important sites, reasons for development clearly outweigh the ecological value of the site and the national policy to safeguard the national network of such sites (3) For regional/local importance sites, the reasons for the development clearly outweigh the ecological value of the site -In all cases where development is permitted, damage must be kept to a minimum. -The council will use conditions or planning obligations to protect and enhance the sites ecological interest and to provide mitigation and compensatory measures where appropriate.
EN25 Species Protected by Law	<ul style="list-style-type: none"> -Development which would adversely affect any species protected by Schedule 1, Schedule 5 and Schedule 8 of the 1981 Wildlife and Countryside Act, and by the E.C. Habitats Directive 1992, or its habitat, will not be permitted.
EN27 Creation of New Habitats	<ul style="list-style-type: none"> -Development proposals should incorporate the creation of new habitats, particularly those concerning priority habitats or species, wherever possible. -The council will promote the interests of nature conservation within the context of new development and will establish or assist the establishment of ecological and nature conservation areas, where such areas would further the opportunity for environmental education and passive recreation.
EN35 Trees, Woodlands and Hedgerows: Amenity Value	<ul style="list-style-type: none"> -The council will seek to retain woodlands, trees, hedges, ponds, walls and any other feature which are important to the character or appearance of the local landscape as a result of their ecological, historic or amenity value. - Proposals which would result in the loss of such features will not be permitted unless their loss can be justified by appropriate mitigation and/or compensatory measures to the satisfaction of the council.

3.0 METHODOLOGY

Desk Study

- 3.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was searched to identify internationally important nature conservation sites within 10km of the site. The database was also searched for all other statutory nature conservation sites within 3km of the Site.
- 3.2 Biological records were obtained from Thames Valley Environmental Records Centre (TVERC) for a 1km radius from the site boundaries. All records of protected/notable species and non-statutory wildlife sites from within this radius were requested.
- 3.3 Biological records provide a useful indication of the species present within a searched locality. However, it should be noted that the absence of a given species from a data search cannot be taken to represent actual absence. Furthermore, species distribution patterns should be interpreted with caution.

Extended Phase 1 Habitat Survey

- 3.4 An extended Phase 1 habitat survey of the site was carried out on 04 April 2014 by Kate Kibble ACIEEM and Cerian Thomas GradCIEEM. This survey technique is at a level intermediate between the Phase 1 survey (JNCC, 2010⁷) (where standardised habitat mapping is undertaken together with making notes on dominant and notable species) and the more detailed survey techniques that may be used to specifically record or survey particular habitats or species. In this survey, plant species observed within each habitat type are recorded and habitats are classified and mapped. Scientific names of botanical species are referenced in accordance with Stace (2010)⁸. Note is also taken of the more conspicuous fauna present during the survey, with particular attention paid to any evidence of, or potential for, the presence of protected or notable species.
- 3.5 Additional plant species were recorded at the site during a visit on 20 May 2014, to allow for the recording of species that may not have been conspicuous during the Phase 1 survey in early April.

Hedgerow Assessment

- 3.6 All hedgerows at the site were assessed against the Wildlife and Landscape criteria of the Hedgerow Regulations 1997 on 04 April 2014 by Kate Kibble. The information gathered was used in conjunction with a desktop assessment (e.g. to determine

⁷ Joint Nature Conservation Committee. (2010) *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. Reprinted by JNCC, Peterborough

⁸ Stace, C. A. (2010) *New Flora of the British Isles (Third edition)*, University Press, Cambridge

hedgerow length, connectivity, association with byways) to determine whether each hedgerow section would qualify as 'important' under the Wildlife and Landscape criteria of the Hedgerows Regulations 1997.

Evaluation and Assessment

- 3.7 The spatial scope of this appraisal aims to identify all ecological features within the 'likely zone of influence' i.e. the area across which direct and indirect impacts may occur, throughout the lifespan of the project.
- 3.8 Ecological features are valued based on the IEEM Guidelines for Ecological Impact Assessment 2006⁹. These guidelines promote a standardised, scientifically rigorous and transparent approach to the assessment process, which is then further informed by professional judgment and interpretation. The process of valuing ecological features can be complex and subjective.
- 3.9 A number of factors need to be taken into account when applying professional judgement to value ecological features. Those addressed in this report include:
- designated sites and features;
 - biodiversity value;
 - potential value, specifically in relation to statutory designated sites and S41/BAP habitats and species;
 - secondary or supportive value to SSSI;
 - legal issues, such as may arise as a result of designated sites and features being affected.
- 3.10 Parameters such as the size, conservation status and viability of any given feature are all relevant in determining biodiversity value. Furthermore the value of a species and/or habitat may vary depending on the location within its range.
- 3.11 Legal protection needs to be considered separately from biodiversity value. Our assessment and reporting will highlight legal issues and the appropriate mechanism for dealing with any such constraint. However not all legally protected species are rare (e.g. badgers) so legal requirements and ecological value are separate considerations.
- 3.12 Assessment of social or community and economic value should be undertaken by a sociologist or economist respectively; similarly multi-functional features require an integrated assessment. This lies beyond the scope of this ecological appraisal.

⁹ Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom*

Geographic Frame of Reference

3.13 In assigning value to an ecological feature, the following geographic frames of reference are used:

- international;
- national;
- regional;
- county (or metropolitan in London);
- district (or borough or unitary authority);
- local (or parish); and
- site (less than local or parish).

4.0 RESULTS AND EVALUATION

Site Location

- 4.1 The Site is situated within a largely rural area, flanked by allotments to the north-east and agricultural land to the south-west. The village of Chesterton occurs to the east with existing residential areas adjoining the boundary to the south-east. A golf course forms the dominant land-use to the west. Habitats within the application site predominantly comprise arable crop, improved grassland and native hedgerows.

Designated Sites

Statutory Sites

- 4.2 The MAGIC database searches reveal that there are no statutory wildlife site designations covering any part of the Site or occurring on adjacent land (see Appendix A)
- 4.3 No internationally important statutory sites designated for nature conservation are present within 10km of the Site. No nationally important designated sites are present within 3km of the Site.
- 4.4 One Local Nature Reserve (LNR), Bure Park LNR, occurs c.2.9km from the site to the north-west. This comprises meadow, young broad-leaved woodland, hedges and scrub habitats alongside the Bure River.

Non-Statutory Sites

- 4.5 The data request response from TVERC (see Appendix B) did not identify any non-statutory designated wildlife sites within 1km of the Site.

General Site Description

- 4.6 The Site comprises two fields bounded by native hedgerows and trees. The southern field is arable, currently planted with oil seed rape crop. Narrow margins of grassland surround the arable field. The northern field comprised short grassland grazed by sheep. The only buildings comprise wood and corrugated metal sheds/ shelters in the north-west of the Site.
- 4.7 The habitats present within the Site are illustrated on the Habitats Plan (CSa/2325/105) in Appendix C and in photographs within this report. The fields and hedgerows have been given individual reference numbers to aid description.

Habitats and Flora

Notable Flora Records

- 4.8 TVERC have provided two records of notable plant species from within 1km of the Site, comprising bluebell *Hyacinthoides non-scripta*, a Schedule 8 species under the Wildlife and Countryside Act, 1981 (as amended), and good King Henry *Chenopodium bonus-henricus* which is classified as Vulnerable on the Great Britain Red List (post 2001). These were recorded c.290m east and c.455m north of the Site within Chesterton Churchyard and the Gagle Brook flood plain respectively.

Arable

- 4.9 F1 comprises arable land planted with a crop of oil-seed rape *Brassica napus oleifera* (see Photo 1). Narrow barer margins occur at the edges of the crop which has begun to be colonised by herb and grass species including Yorkshire fog *Holcus lanatus*, dandelion *Taraxacum agg*, cut-leaved crane's-bill *Geranium dissectum*, wood avens *Geum urbanum*, red dead-nettle *Lamium purpureum*, white dead-nettle *L. album*, common vetch *Vicia sativa*, greater bird's-foot-trefoil *Lotus pedunculatus*, spear thistle *Cirsium vulgare*, greater plantain *Plantago major*, prickly sowthistle *Sonchus asper*, groundsel *Senecio vulgaris* and field pansy *Viola arvensis*.
- 4.10 Additional plant species at the Site were noted during a visit on 20 May 2014. Some species typical of farmland habitats, such as common poppy *Papaver rhoeas* and fumitory *Fumaria* spp. were present around the margins of the crop though no uncommon or notable species were identified.



Photo 1: Field F1 supporting crop of oil-seed rape



Photo 2: Field F2 showing grazed grassland

Improved grassland

- 4.11 F2 comprises an improved grassland field, grazed by sheep (Photo 2). Species recorded include perennial rye-grass *Lolium perenne*, fescue *Festuca* sp. and cock's foot *Dactylis glomerata* with dandelion, clover *Trifolium* spp., greater plantain, creeping buttercup *Ranunculus repens*, common nettle *Urtica dioica* and broad-leaved dock

Rumex obtusifolius. A greater range of species were recorded closer to the hedgerow bases, as described below.

Semi-improved grassland

- 4.12 Semi-improved grassland is present at the site in the form of uncultivated field margins up to 2m wide along the bases of hedgerows within F1. Within F2 the grassland is grazed up to the hedgerow bases. Larger areas of grassland are present in the field corners and at the north-west access point into the field. The sward structure and composition is similar within all margins and is dominated by cock's-foot and Yorkshire fog grasses with abundant cow parsley *Anthriscus sylvestris*, lords and ladies *Arum maculatum*, cleavers, common nettle, hedge garlic *Sisymbrium officinale* and ivy *Hedera helix*. Additional species recorded include broad-leaved dock, bramble *Rubus fruticosus*, germander speedwell, groundsel, cut-leaved cranesbill, wood avens, ground ivy *Glechoma hederacea*, creeping buttercup and hedge woundwort *Stachys sylvatica*.

Hedgerows, trees and shrubs

- 4.13 There are seven hedgerows within the site which form the boundaries of each field. A detailed assessment was undertaken of each hedgerow, the results of which are summarised in Table 2 and provided in full within Appendix D.
- 4.14 The hedgerows are predominantly native and dominated by hawthorn *Crataegus monogyna* though several non-native, garden species such as forsythia *Forsythia* sp., snowberry *Symphoricarpos albus* and leylandii *X. cuprocyparis leylandii* are present close to adjacent gardens and allotments.
- 4.15 The formal assessment indicated that no hedgerows at the site currently qualify as Important under the Wildlife and Landscape criteria of the Hedgerows Regulations 1997, although H3 is borderline Important. This means that should one additional woody species or additional qualifying feature be identified then the hedgerow would qualify as Important. Most hedgerows contained several woody species throughout their entire length though only H2 supported more than five woody species within a 30m length, qualifying as species-rich.

Other habitats

- 4.16 Two large brash/debris piles are present within F2 as well as a spoil/rubble heap colonised by daffodil *Narcissus* sp. and speedwells *Veronica* spp.

Table 2: Summary description of hedgerows at the site

Hedge No.	General description	Woody species*	Ground flora	Species rich? **	Important?
H1	Mature native, intact hedge adjacent to lane. Regularly managed (recently flailed). c.1m margin along most of length	Hawthorn, sycamore, ash, dog rose	Lords and ladies, cow parsley, hedge garlic, ground ivy	No	Not important
H2	Tall and leggy with several standard ash trees. Not stock proof. c.2m wide margin	Hawthorn, blackthorn, dog rose, privet, elder, blackthorn	Wood avens, lords-and-ladies, groundsel	Yes	Not important
H3	Outgrown native hedgerow between dry ditch and adjacent housing. Some larger trees	Hawthorn, yew, field maple, ash, hazel, lime, snowberry, elder, rose, leylandii, flowering currant	Herb Robert, ground ivy, wood avens, forget-me-not, woundwort, dove's-foot crane's-bill, cut-leaved crane's-bill, lesser celandine, cow parsley	No	Borderline
H4	2-3m high gappy hedgerow with scrub and c.1m margin. Not stock proof	Rose, wych elm, yew, blackthorn, hawthorn, dogwood, buckthorn, sycamore, forsythia, wild privet	Cow parsley, bramble, common nettle, cock's-foot	No	Not important
H5	Managed short stretch of hedgerow along lane	Hawthorn, sycamore	Lords-and-ladies, cleavers, daffodil, cock's-foot	No	Not important
H6	Managed hawthorn hedgerow at western end, with laid section along majority of length and new shrub planting to east	Hawthorn, blackthorn	Lords-and-ladies, cow parsley, cleavers, bindweed, wood avens, thyme-leaved speedwell	No	Not important
H7	Outgrown native hedgerow alongside dry ditch and garden fencing.	Hawthorn, field maple, elder, ash, walnut	Lords-and-ladies, herb Robert, wood avens	No	Not important

* Woody and ground flora species recorded are those found along the entire length of the hedgerow

** Species-rich hedgerows are defined as those containing at least five woody species per 30m section assessed¹⁰

4.17 The majority of trees at the site comprise semi-mature and mature field maple, ash and sycamore associated with hedgerows, particularly H2 and H3 along the south-western and south-eastern boundaries. Many of these are multi-stemmed and appear to have grown out from old hedgerow coppice stumps. Recent immature tree planting including field maple, pine *Pinus* sp. and coniferous hedging plants are present in the north-east corner of F2.

¹⁰ Defra, 2007. Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. 2nd edition. Defra, London



Photo 3: Managed hedgerow H1



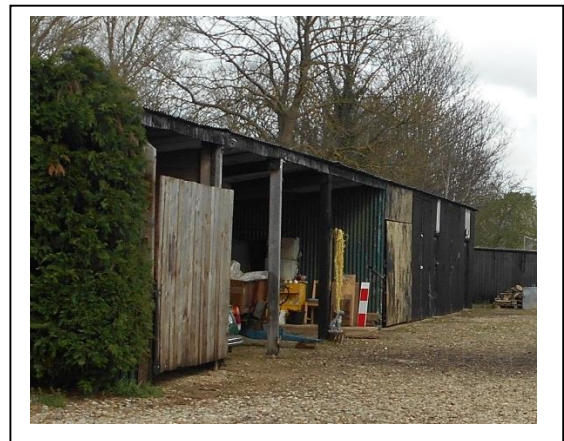
Photo 4: Outgrown hedgerow H3 with trees

Dry ditch

- 4.18 A dry ditch runs along the base of H7 and H3 in the south of the Site. There was no water present in the ditch during the time of survey and it was largely devoid of vegetation, with the exception of some ivy and hedgerow scrub.

Hard-standing and buildings

- 4.19 The Site includes a small area of hard-standing and farm buildings in the northern end of F2. This ground is sparsely colonised by perennial rye grass, clover, common chickweed *Stellaria media*, dandelion and groundsel.
- 4.20 The buildings comprise a collection of metal and wooden sheds within F2 used either for storage of equipment and machinery, or as shelters for livestock. These are predominantly open fronted (see Photos 5 & 6).



Photos 5 & 6: On-site buildings/ sheds

Fauna

Bats

- 4.21 One record of bats has been provided by TVERC for the 1km search area, a common pipistrelle *Pipistrellus pipistrellus* bat record from 1995 c.240m north-east of the site. No further information on the type of roost is provided.
- 4.22 There are several mature trees at the site of a size and age that could potentially support bat roosts, although individual assessment of the trees has not been undertaken. The hedgerows and field margins provide opportunities for commuting and foraging bats.
- 4.23 The buildings on-site comprise storage buildings with wooden frames and corrugated metal roofs and walls, and small wooden sheds and lean-tos, which were predominantly open-fronted. These buildings are considered to offer negligible roosting potential for bats.

4.24

[REDACTED]

4.25

[REDACTED]

Dormice

- 4.26 No records for hazel dormouse *Muscardinus avellanarius* were returned for the search area and based on national survey data their distribution within Oxfordshire is very restricted¹¹. The hedgerows on-site are generally species poor, and there is no broadleaved woodland habitat within the Site. Connectivity to extensive areas of woodland that could support dormouse populations is also poor. As a result of these factors it is considered unlikely that dormouse occur within the Site.

Other mammals

- 4.27 No records of other notable mammal species were provided by TVERC. Hedgerows, field margins, brush piles and arable habitats are likely to offer sheltering and foraging opportunities for a range of small mammal species.

¹¹ PTES, 2011. The Golden Great Nut Hunt Report. November 2011 [online]. Available at: http://www.ptes.org/files/1640_gnhreportnov2011.pdf [accessed: April 2014].

Birds

- 4.28 TVERC have provided 19 bird records for the search area, comprising records of six species. Thirteen of these records are of common swift *Apus apus* from between 2008-2012, including nest records. Records are scattered around the residential areas of Chesterton to the north and east, between c.100m – 285m away from the site. Mallard *Anas platyrhynchos*, mistle thrush *Turdus viscivorus* and linnet *Carduelis cannabina* have all been recorded, at their closest, from the Gagle Brook flood plain c.460m north-east of the site. Two Schedule 1 bird species, barn owl *Tyto alba* and fieldfare *Turdus pilaris* were recorded within 1km. Barn owl has been recorded within a 2km tetrad which contains the site and fieldfare were recorded over 500m away.
- 4.29 During the site visit of 04 April 2014 a number of incidental bird records were made, predominantly comprising typical garden bird species in addition to the notable species dunnock *Prunella modularis*, starling *Sturnus vulgaris*, house sparrow *Passer domesticus* and red kite *Milvus milvus*.
- 4.30 The trees and hedgerows within the application site are likely to form the most valuable nesting and foraging habitat for birds, though the grassland and arable land will also form a foraging resource for some species. There is considered to be low potential for nesting by Schedule 1 bird species though red kite was seen foraging over the site.

Reptiles

- 4.31 One record of slow-worm *Anguis fragilis* and three records of grass snake *Natrix natrix* were provided by TVERC/ORAG (Oxford Reptile and Amphibian Group). Both species have been recorded during 2003 within allotments adjacent to the site. Grass snake were also recorded over 300m from the site near Gagle Brook and Bignell Park.
- 4.32 The hedgerow bases and field margins have potential to be used by common and widespread reptile species, particularly if they occur within the adjacent allotments.

Amphibians

- 4.33 Three records of adult common toad *Bufo bufo* and seven records of common frog *Rana temporaria* (all life stages) exist within the 1km search area, from within the adjacent allotments and wider area of Chesterton village. No records of great crested newt were provided by TVERC and one record of smooth newt *Lissotriton vulgaris* was provided from the Gagle Brook area over 300m from the site..
- 4.34 There are no aquatic opportunities for amphibians within the Site. Natural England Guidelines¹² suggest that all ponds within 500m of a proposed development area should be considered with respect to great crested newts. Four water bodies were identified within 500m of the site using a combination of Ordnance Survey, aerial maps and other online sources. Three of the ponds occur c.90m, c.295m and c.425m from the Site within the golf course to the west. The hedgerows and field margins could

¹² English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough
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potentially provide terrestrial habitat for great crested newts if a population breeds within the golf course ponds.

- 4.35 An additional water body occurs c.420m to the north that is surrounded by woodland and separated from the Site by developed areas of Chesterton including the A4095 road. It is considered highly unlikely that any great crested newts using this waterbody (no records known) would use the habitats present within the Site as a result of the distance and intervening land use.

Invertebrates

- 4.36 TVERC/UTBC (Upper Thames Butterfly Conservation) have provided records of notable butterfly species. There are 25 records comprising 5 species: white-letter hairstreak *Satyrium w-album*, small blue *Cupido minimus* grizzled skipper *Pyrgus malvae*, wall *Lasiommata megera* and small heath *Coenonympha pamphilus*. All records relate to the 1km grid square SP5622, more than 500m to the north-east of the site.
- 4.37 The hedgerows, vegetated and bare field margins, ditch and fallen deadwood offer a range of opportunities for invertebrates at the site. The habitat types at the site are common and the vegetation is not of particular botanical or structural diversity and as such the site is unlikely to support a notable assemblage of invertebrates.

Evaluation of Ecological Features

- 4.38 With reference to the evaluation criteria set out in Section 2.0, a range of factors are considered when evaluating the ecological features of a site. Table 3 provides a summary of the features against a checklist of potentially relevant factors as set out in the CIEEM evaluation guidelines.

Table 3. Evaluation Checklist

Valuation factors	Status	Notes
Designated Sites and Features <ul style="list-style-type: none"> • Internationally important sites • Nationally important sites • Sites of lower level importance • TPOs • Hedgerows Regulations 	None present within 10km None present within 3km Present within 3km Not assessed Assessed	- - One LNR is present 2.9km north-west of the site - No hedgerows are ecologically Important, although H3 is borderline.
Biodiversity value <ul style="list-style-type: none"> • Habitat designations 	Absent	There are no habitats listed on the ancient woodland or grassland inventory within, or immediately adjacent to, the site boundary.

Valuation factors	Status	Notes
<ul style="list-style-type: none"> S41/BAP habitats 	Present	The S41 list and Oxfordshire BAP for hedgerows is relevant for this site
<ul style="list-style-type: none"> Ancient woodland 	Absent	-
<ul style="list-style-type: none"> Protected species 	Potentially Present	There is potential for bats, breeding birds, widespread reptile species and great crested newt to use the habitats within the Site.
<ul style="list-style-type: none"> Rare species 	None identified	-
<ul style="list-style-type: none"> Species records 	Present within proximity	Protected/notable species records have been provided for within 1km of the site. Common swift, slow-worm and grass snake were recorded in close proximity to the site
<ul style="list-style-type: none"> S41/BAP species 	Present	There are records for S41/BAP species within 1km.
Large populations/important assemblages of species	None identified	-
Potential value	Absent	-
Secondary or supporting value	Absent	-
Legal issues	Potentially Present	Protected species issues are further discussed in Section 5.0.

4.39 Native hedgerows with associated trees and grassland margins are considered to comprise features of ecological value because they provide a foraging, sheltering and dispersing resource for a variety of wildlife. Hedges H1, H2, H3 and H7 are mature continuous native hedgerows with trees that provide tall and wide features that are considered to be of ecological value at the **Local** level. The remaining hedgerows are generally less mature, do not include trees and are intensively managed and as a result these features are assessed as being of value at **Site** level.

4.40 The remaining habitats at the site are common and widespread and of low interest botanically. Whilst they provide opportunities for local wildlife, including protected species, they are not considered to be of significant ecological value. Nonetheless, further survey work could potentially identify animal populations of significant ecological value that are dependent upon these habitats, which would elevate their importance.

5.0 DISCUSSIONS AND RECOMMENDATIONS

Potential Impacts and Recommendations

Designated Sites

- 5.1 The closest designated site, Bure Park LNR, occurs c.2.9km away. Due to the nature of the LNR and its distance from the Site, no impacts to the ecological value of the LNR would be likely to arise from the proposed development.

Habitats and Flora

- 5.2 The majority of the site comprises arable land or improved grassland which would be lost to development. These habitats are considered to be of low ecological value.
- 5.3 The hedgerows with associated trees, dry ditch and semi-improved grassland margins are considered to be of ecological value as a foraging, sheltering and dispersal resource for a range of wildlife. It is recommended that hedges and trees are retained and enhanced alongside development wherever possible, particularly the more ecologically valuable hedges, considered to be H1, H2, H3 and H7.
- 5.4 Given the small size of the site it is anticipated that loss of sections of H4 would be required in order to design a practicable development layout. This hedge is of relatively low ecological value compared to the others at the site as it is less mature and contains numerous gaps. If loss of this hedgerow becomes necessary, it is recommended that improvements be made to the parallel boundary hedge H6 as mitigation. Hedge H6 could be planted up with additional native species and managed non-intensively to form a dense, wide and species-rich hedgerow offering a valuable wildlife corridor alongside development.
- 5.5 Mature trees and hedges to be retained alongside the development should be protected during construction in line with British Standard BS5837:2012- Trees in relation to design, demolition and construction. Recommendations.

Bats

- 5.6 Several mature and semi-mature trees are present at the Site that could potentially support bat roosts. Further investigation is recommended to identify whether roosts are likely to occur. A ground-based tree assessment should be undertaken to identify potential roosting features within trees in order to categorise their bat roosting potential in line with BCT guidelines¹³. Should the ground based assessment identifies trees with significant bat potential that would be impacted by development, further aerial inspections and/or bat emergence/return-to-roost surveys (May-August) should be undertaken as appropriate to assess for the presence/ absence of bat roosts.

¹³ Hundt, L. (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust, London
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- 5.7 The hedgerows and field margins may provide a foraging resource and commuting routes for local bat populations. It is recommended that further bat activity surveys be undertaken to identify the species using the site and to assess the extent to which habitats are used for bat foraging and commuting. Transect surveys and deployment of static bat detectors for extended periods are recommended on three occasions between April and September.
- 5.8 The potential impacts of artificial lighting on bats and other nocturnal species should be carefully considered within the development design. In particular, light spill over bat roosting features and key foraging and commuting routes should be avoided and light spill over all other retained and proposed vegetation should be minimised. The results of the further bat surveys should be used to inform the lighting design.
- 5.9 All species of British bat are European Protected Species (EPS) and their roosts are protected under the Wildlife and Countryside Act, 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. If surveys identify that bat roosts are to be unavoidably impacted by development, an appropriate mitigation strategy would need to be agreed and an EPS licence would be required from Natural England to authorise any damage or destruction of bat roosts, which would otherwise be illegal.

Birds

- 5.10 A number of records for notable birds were provided for the 1km data search area and habitats on site are likely to be of value to a range of bird species.
- 5.11 It is recommended that a breeding bird survey be undertaken to identify the bird assemblage using the site in order to assess the potential impacts to local bird populations as result of development, and to inform the design of mitigation and enhancement such as new planting. This should comprise four walked transects of the site at dawn/early morning, between March and early July. Standard codes should be used to map the species recorded, their behaviour, breeding activity, numbers and distribution.
- 5.12 All wild birds are protected from killing and injury, and their nests and eggs are protected from damage and destruction, under the Wildlife and Countryside Act, 1981. Any clearance of vegetation should avoid the period between March and August (inclusive) when nesting birds are most likely to be present. If this is not possible, then a pre-clearance nesting check by an experienced ecologist would be necessary to avoid impacts to nesting birds and an offence under the Act.

Reptiles

- 5.13 The semi-improved grassland margins of the arable field have potential to support legally protected reptiles species. A reptile presence/absence survey is recommended to identify whether populations occur that could be impacted by development. The survey should comprise the placement of artificial refugia within suitable habitats, to

be checked for reptiles, in combination with visual searches, on seven occasions between April and September.

- 5.14 All widespread reptile species (slow-worm, grass snake, common lizard, adder) are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). If reptiles are present, a mitigation strategy will be required to ensure that development works do not harm reptiles and that sufficient habitat is retained in suitable condition to maintain reptile populations alongside development.

Great crested newt

- 5.15 Terrestrial habitats within the site could potentially be used by great crested newts if a population occurs within ponds on the adjacent golf course to the west. A Habitat Suitability Index (HSI) assessment should be made of the golf course ponds within 500m to assess their suitability to support great crested newts.
- 5.16 A subsequent great crested newt presence/absence survey should be undertaken of all potentially relevant water-bodies. Four survey visits would be required between mid-March and mid-June (including two between mid-April to mid-May), using several survey methods in line with Natural England guidelines. If great crested newts are found, a further two visits would be required within the same period to allow a population size-class assessment to be made.
- 5.17 Great crested newts and their habitats are given legal protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended). If the results of the further surveys indicate that great crested newt are likely to use the Site, a detailed mitigation strategy would need to be prepared and an EPS licence would need to be obtained from Natural England before development could proceed. This strategy would require the retention and enhancement of terrestrial habitat for great crested newt alongside development in order to maintain the favourable conservation status of this species.

Invertebrates

- 5.18 The Site is not likely to be of notable value for invertebrates. Nonetheless, it is recommended that deadwood is retained wherever possible within trees and hedges and that new flower-rich planting be provided, to maximise opportunities for invertebrates alongside development.

Opportunities for Ecological Enhancement

- 5.19 In addition to the recommendations made for specific habitats and species above and in line with guidance within the NPPF, ecological enhancement should be provided alongside development, for example:
- The landscaping scheme should prioritise the planting of native plants of local provenance, particularly in locations close to existing semi-natural habitats. A list of suitable species is given in the Natural England leaflet 'Plants for wildlife-

friendly gardens'¹⁴, which would provide valuable foraging and sheltering opportunities for invertebrates and other species;

- There is good scope to bring the retained hedgerows into more favourable condition. Existing gaps should be infilled using native species of local provenance and a low-intensity management regime could be implemented to improve hedgerow structure and maximise the resource of flowers, fruits and seeds for wildlife;
- Any proposed drainage attenuation features should be designed to maximise their ecological value through creating open water areas with some shallow/sloping margins, and use of native aquatic and marginal planting mixes. Care should be taken to avoid the introduction of non-native or invasive species, either deliberately or incidentally through contamination of other planting stock;
- Wood arising from any management or clearance activities at the site should be used to form habitat piles at hedgerow bases. This will provide foraging opportunities for saproxylic invertebrates as well as sheltering and hibernation opportunities for other species; and
- New bat roosting and bird nesting opportunities should be incorporated into the fabric of new buildings and/or erected on retained trees. Opportunities for hole-nesting species would be valuable as there are limited such examples present at the site currently. Boxes can also be designed to specifically target declining bird species such as swift, house sparrow, house martin *Delichon urbica* as well as bats.

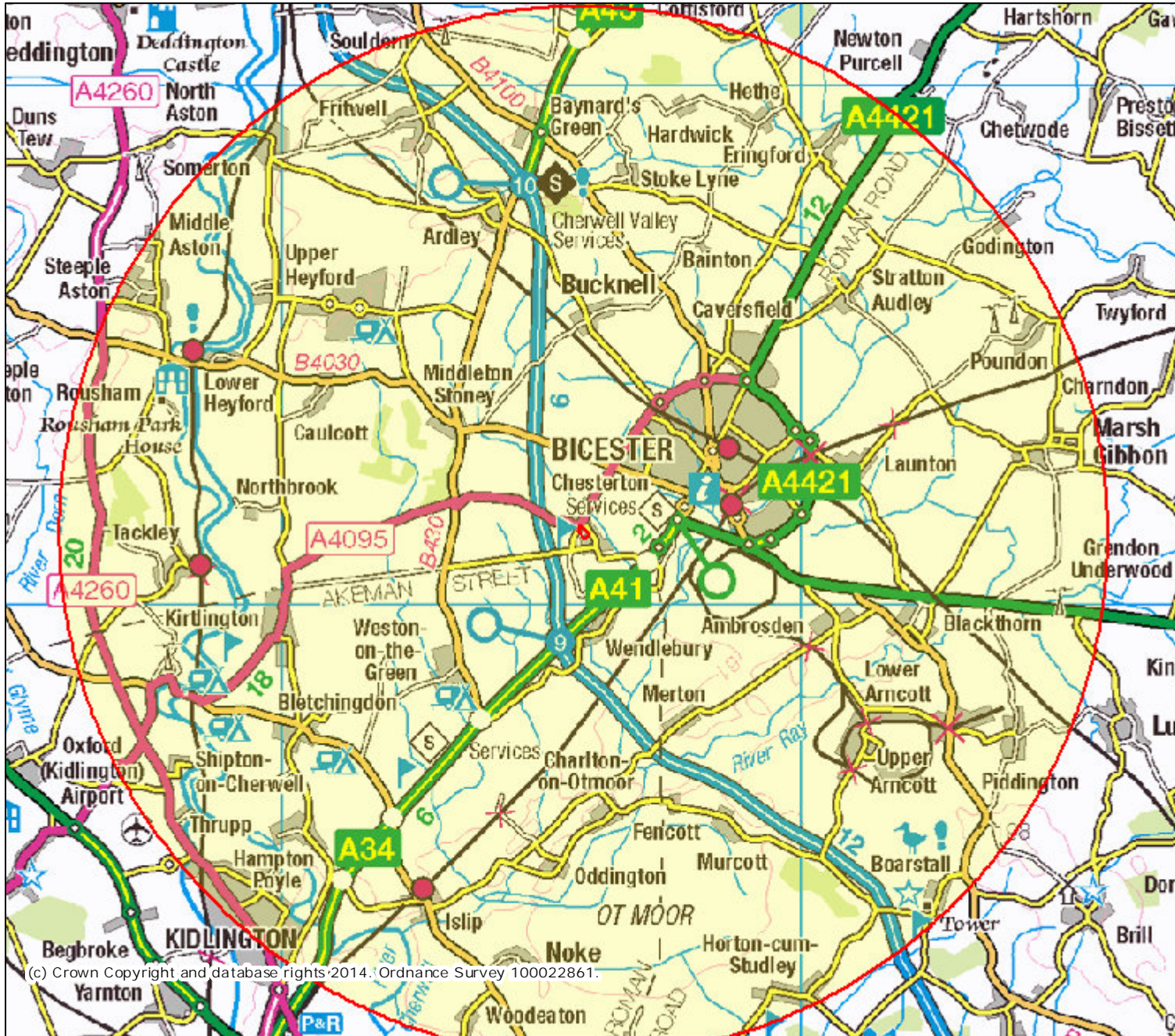
¹⁴ Natural England, 2007. *Plants for wildlife-friendly gardens*. Natural England, Sheffield.
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6.0 CONCLUSIONS

- 6.1 The Site does not occur within or adjacent to any statutory or non-statutory wildlife sites and no significant impacts to any such sites are anticipated as a result of the proposed development.
- 6.2 The proposed development site is dominated by arable land and sheep-grazed pasture of low ecological value. Habitats of ecological value comprise native hedgerows with associated trees, long grassland margins and dry ditch. The retention, protection and enhancement of such habitats is recommended wherever possible.
- 6.3 The loss of sections of the central hedgerow that divides the fields (H4) is anticipated to facilitate development. This hedgerow is of relatively low value and it is considered that its loss could be adequately mitigated through improvements to the northern boundary hedge (H6).
- 6.4 There is potential for several protected/notable animal species to occur on site. Further surveys are recommended to fully assess the impacts from the development and to inform any mitigation required, as follows:
- **Bat roosting**- Ground-based tree assessment (any time of year);
 - **Bat commuting and foraging**- Three transect and static detector surveys (May to September);
 - **Birds** – Four breeding bird surveys (mid-March to mid-July);
 - **Reptiles** – Seven visit presence/absence survey (April to September)
 - **Great Crested Newt** - Pond assessment (HSI) and subsequent four visit presence/absence surveys and (mid-March to mid-June, with at least half of surveys undertaken between mid-April and mid-May). If present, two additional visits within the same period to gain an understanding of population size.
- 6.5 Subject to the recommendations made within this report and implementation of subsequent appropriate mitigation where required, it is anticipated that this site could be developed without any overriding constraint from ecology or significant impacts to local biodiversity.

Appendix A

MAGIC Database Site Check Reports and Plans



Legend

- Ramsar Sites (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

Projection = OSGB36
 xmin = 436800
 ymin = 209300
 xmax = 475200
 ymax = 233900

Map produced by MAGIC on 12 March, 2014.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

Site Check Report Report generated on Wed Mar 12 2014
You selected the location: Centroid Grid Ref: SP558214
The following features have been found in your search area:

Ramsar Sites (England)

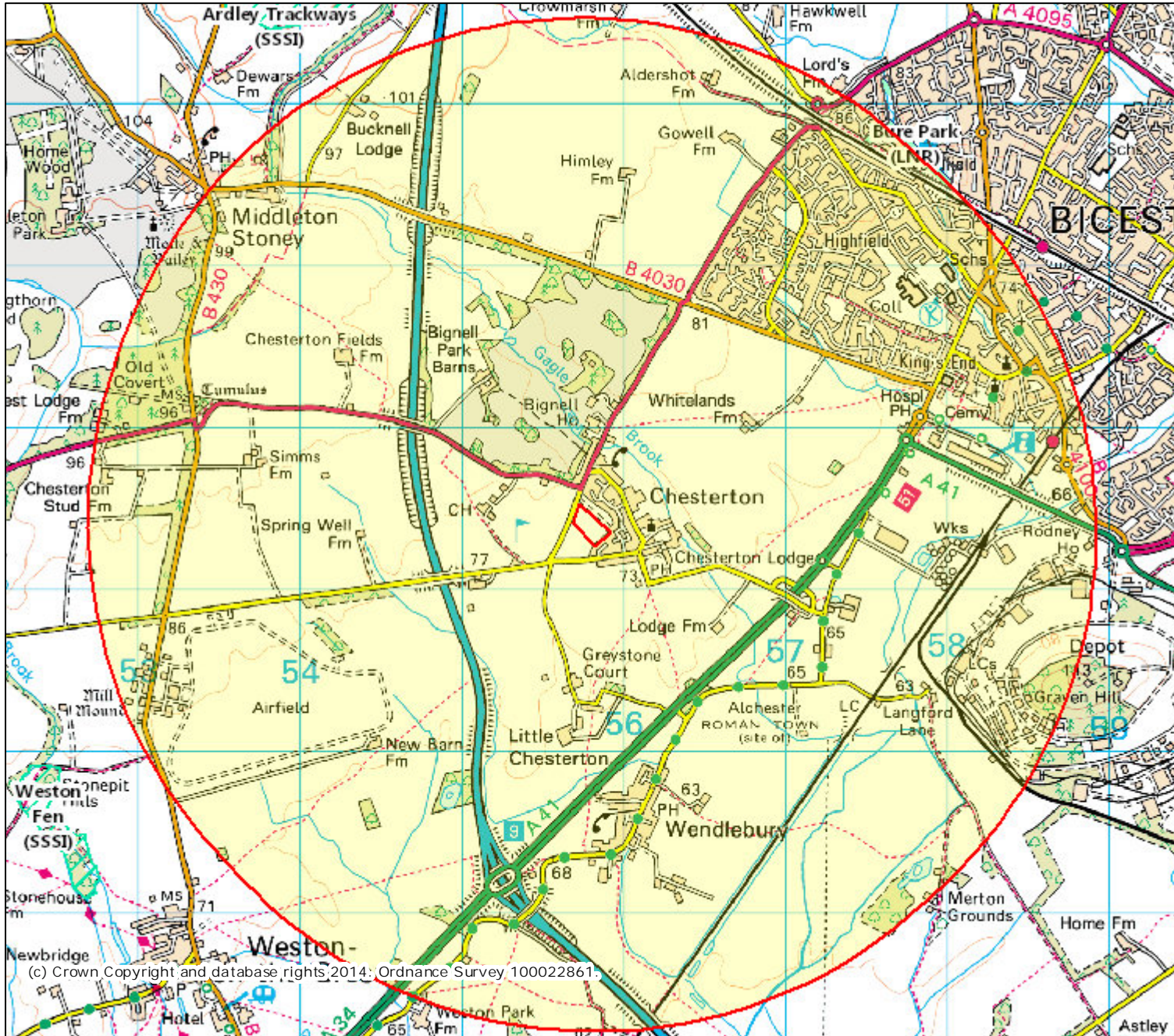
No Features found

Special Areas of Conservation (England)

No Features found

Special Protection Areas (England)

No Features found



Legend

-  Local Nature Reserves (England)
-  National Nature Reserves (England)
-  Sites of Special Scientific Interest (England)

Projection = OSGB36

xmin = 449600

ymin = 217500

xmax = 462000

ymax = 225400

Map produced by MAGIC on 12 March, 2014.

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Site Check Report Report generated on Wed Mar 12 2014
You selected the location: Centroid Grid Ref: SP558213
The following features have been found in your search area:

Local Nature Reserves (England)

Reference

1134227

Name

BURE PARK

Hectares

8.4

Hyperlink

http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1134227

National Nature Reserves (England)

No Features found

Sites of Special Scientific Interest (England)

No Features found

Appendix B

Biological Data Search Response from TVERC



Biodiversity Report

Site: Land at Chesterton (2325)

TVERC Ref: O276.13

Prepared for: CsA Environmental Planning

Date: 26/3/2014

By Thames Valley Environmental Records Centre



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TABLE OF CONTENTS

The following are included in this report:

GENERAL INFORMATION:

- Terms & Conditions
- Species data statements

PROTECTED & NOTABLE SPECIES INFORMATION:

- Table of legally protected and notable species records (1 km search area)
- Species status key
- Data origin key

TERMS AND CONDITIONS

The copyright for this document and the information provided is retained by Thames Valley Environmental Records Centre. The copyright for some of the species data will be held by a recording group or individual recorder. Where this is the case, and the group or individual providing the data is known, the data origin will be given in the species table.

TVERC must be acknowledged if any part of this report or data derived from it is used in a report. The whole document may be used as an appendix within your report.

The data in this report can only be used for the project for which it was requested. It cannot be passed on to third parties without permission of TVERC (this excludes reports presented to clients and Local Authorities).

The data should be considered valid for a maximum 12 months from the date on the cover of this report. If the data is to be used after that time an update should be requested. The data must not be added to any permanent database system.

The absence of any species or habitat data for any site, area or location does not mean that any species or habitat is not present.

MAPS

To reproduce the Ordnance Survey mapping you must hold a relevant licence for the use of Ordnance Survey mapping or it can be copied at a printers or copyshop that holds a licence to carry out search work (see the Ordnance Survey website).

DATA STATEMENTS

STATEMENT ON BIRD RECORDS IN OXFORDSHIRE (DATA MARKED AS "OOS" IN THE DATA ORIGIN COLUMN)

The majority of bird records in Oxfordshire, except those in the north of the county, have been provided by the Oxford Ornithological Society. Such records have a value of OOS in the data origin column. Please note that:

- a. Not all species are subject to the same degree of recording; the absence of records of a species in a given geographical area does not necessarily indicate absence of that species.
- b. Not all parts of the county are subject to the same degree of recording; the absence of records for a given area does not necessarily indicate the absence of bird species.
- c. Records of species regarded as sensitive have been provided with reduced information about location. Any requests for more precise information about the location of such "confidential" sites should be addressed directly to OOS (www.oos.org.uk) You can use the following email contacts chairman@oos.org.uk (the chairman) and ian@recorder.fsnet.co.uk (the county bird recorder).

STATEMENT ON WILDLIFE TRUST WATER VOLE DATA

Since 2008 data has been collected as positive or negative sections of watercourses. Positive sections crossing into search areas are included within the data. These are shown with the central grid reference for the stretch of watercourse. This may fall outside the search area but the stretch will be at least partly within the search area. The location information shows the beginning and end points of the stretch of watercourse.

USE OF NBN GATEWAY DATA

Commercial organisations and members of the public may refer to the National Biodiversity Network (NBN) Gateway for wildlife records and habitat and designated site information for their own private use.

The NBN Gateway's Terms and Conditions state "*You may not republish wholesale the material, data and/or information made available to you, or exploit it for commercial or academic research purposes without first obtaining written permission from the relevant data provider*". This means that environmental consultants cannot use NBN data in ecology reports for planning applications unless they have obtained written permission from all the data providers. If NBN Gateway data are also provided for this project please make sure that the **NBN Gateway's terms and conditions are followed precisely.**

The National Planning Policy Framework states that "*planning policies and decisions should be based on up-to date information about the natural environment and other characteristics of*

the area". **The NBN Gateway does not hold the most up-to-date**, comprehensive or highest resolution information on protected and notable species, local sites or habitats in Berkshire and Oxfordshire.

TVERC have advised planning authorities in Berkshire and Oxfordshire that ecology reports using only NBN data should not usually be validated and the NBN has requested that suspected breaches of NBN terms and conditions are reported to the NBN Data Access Officer, who will take appropriate action. Further detail is available on our website:

<http://www.tverc.org/cms/content/ecological-survey-reports-planning-applications>.

STATEMENT ON GRID REFERENCES

The following types of grid references are provided:

- Six figure grid references. Many of these will be an assigned relatively central grid reference for a site though with small sites the assigned grid reference for a site could be close to the edge. The record may have come from anywhere within the site. Where additional location information is provided the reference may be more accurate or central to a subsite within the larger site. Where the location is not site based, the grid reference should be within 100 metres of the location.
- Four figure grid references. Generally these are 1km square records often with some location information to give an idea of which part of the 1km square the record was found. Sometime this information can be quite accurate. Where a large site is referred to the location should be in that part of the 1km square that is within the site. In some case these may be tetrad records with grid reference referring to a 2km x 2km square. This includes some confidential records from Oxford Ornithological Society. Other tetrad data is rarely included.
- Eight and ten figure grid references: These are generally accurately worked out to the location where the species was found. However for small and narrow sites eight figure grid references may be used as a central grid reference for a site.
- TVERC intends to start tagging data to qualify these grid references but at present only a limited amount of qualification is provided. 1km square records are tagged as 1km record and 2km square records are tagged as 2km record.

Common Name	Scientific name	Abundance and/or Sex/Stage	Date	Year	Grid Ref	Grid Reference Qualifier	Location	Type of Record	Comment	Data Origin	European Directives	UK Legislation	Priority NERC S.41	Other Designations	Taxon Group
Bluebell	Hyacinthoides non-scripta		1990	1990	SP562213		Chesterton Churchyard	field record		LN		WACA-Sch8			flowering plant
Good-King-Henry	Chenopodium bonus-henricus		1977 - 1987	1987	SP561218		Gagle Brook Flood Plain, Chesterton	field record		BBOWT				GBRed-post 2001-VU	flowering plant
Grizzled Skipper	Pyrgus malvae		28/05/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-VU	insect - butterfly
White-letter Hairstreak	Satyrrium w-album	2 to 9	27/07/1997	1997	SP5622	1 km record	Whitelands Farm	field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-EN	insect - butterfly
Small Blue	Cupido minimus		13/08/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus		24/07/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus		27/07/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus	10 to 29	28/05/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus		01/08/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus		01/06/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Blue	Cupido minimus		01/06/1990	1990	SP5622	1 km record		field record		UTBC		WACA-Sch5_sect9.5a, 9.5b	NERC S.41	GBRed-post 2001-NT	insect - butterfly
Wall	Lasiommata megera		13/08/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Wall	Lasiommata megera		01/08/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		07/09/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus	10 to 29	13/08/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		15/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		15/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		24/07/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		30/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		27/07/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		28/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		28/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus	1 adult	28/05/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		30/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus		01/08/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus	10 to 29	01/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Small Heath	Coenonympha pamphilus	10 to 29	01/06/1990	1990	SP5622	1 km record		field record		UTBC			NERC S.41	GBRed-post 2001-NT	insect - butterfly
Smooth Newt	Lissotriton vulgaris	1 adult	01/06/2002	2002	SP56022167			field record		ORAG		WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Toad	Bufo bufo	2	21/08/2003	2003	SP559214			field record		ORAG		WACA-Sch5_sect9.5a, 9.5b	NERC S.41		amphibian
Common Toad	Bufo bufo	1 adult	01/07/2003	2003	SP56022167			field record	garden	ORAG		WACA-Sch5_sect9.5a, 9.5b	NERC S.41		amphibian
Common Toad	Bufo bufo	1 adult	Summer 1993	1993	SP56202131			field record		ORAG		WACA-Sch5_sect9.5a, 9.5b	NERC S.41		amphibian
Common Frog	Rana temporaria	20	21/08/2003	2003	SP559214			field record		ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	Egg	Spring 1992	1992	SP56022163			field record	large mass of spawn	ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	Egg	Spring 2002	2002	SP56022167			field record	large amounts of spawn	ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	>100 Tadpoles	Spring 2002	2002	SP56022167			field record		ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	42 adults	01/06/2002	2002	SP56022167			field record	various sizes from very small	ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	20 adults	Summer 2003	2003	SP56022167			field record	various sizes from very small	ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Common Frog	Rana temporaria	1 adult	Summer 1995	1995	SP56202131			field record		ORAG	HabDir-A5	WACA-Sch5_sect9.5a, 9.5b			amphibian
Slow-worm	Anguis fragilis	1	21/08/2003	2003	SP559214			field record		ORAG		WACA-Sch5_sect9.1, 9.5a, 9.5b	NERC S.41		reptile
Grass Snake	Natrix natrix	2	21/08/2003	2003	SP559214		Orchard Rise, Chesterton?			ORAG		WACA-Sch5_sect9.1, 9.5a, 9.5b	NERC S.41		reptile
Grass Snake	Natrix natrix	1	Summer 1994	1994	SP56022167		Barnside, Alchester Rd, Chesterton		Swimming in pond	ORAG		WACA-Sch5_sect9.1, 9.5a, 9.5b	NERC S.41		reptile
Grass Snake	Natrix natrix	1	Summer 2000	2000	SP56022167		Bignell Park, Chesterton			ORAG		WACA-Sch5_sect9.1, 9.5a, 9.5b	NERC S.41		reptile
Mallard	Anas platyrhynchos		1977 - 1987	1987	SP561218		Gagle Brook Flood Plain, Chesterton	field record		BBOWT				Bird-Amber	bird
Barn Owl	Tyto alba	1	22/11/1999	1999	SP52K	2 km record	Confidential	Field Record		OOS		WACA-Sch1(pt 1)		Bird-Amber	Bird
Common Swift	Apus apus		2012	2012	SP55752164		19 Bignell View, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus	6 Nest	2012	2012	SP55762165		17 Bignell View, Chesterton	nest	At least 6 nest	LN				Bird-Amber	bird
Common Swift	Apus apus		2012	2012	SP55772166		15 Bignell View, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus	Nest	01/05/2008 - 31/08/2008	2008	SP55782162		17 Bignell View, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus	Pair	01/05/2009 - 30/07/2009	2009	SP55782162		17 Bignell View, Chesterton	nest	nest site/s identified	LN				Bird-Amber	bird
Common Swift	Apus apus		01/05/2010 - 30/07/2010	2010	SP55782162		17 Bignell View, Chesterton	nest	nest site/s identified	LN				Bird-Amber	bird
Common Swift	Apus apus		2012	2012	SP55802174		Plum Tree Cottage, Chesterton	nest		LN				Bird-Amber	bird

Common Name	Scientific name	Abundance and/or Sex/Stage	Date	Year	Grid Ref	Grid Reference Qualifier	Location	Type of Record	Comment	Data Origin	European Directives	UK Legislation	Priority NERC S.41	Other Designations	Taxon Group
Common Swift	Apus apus		2012	2012	SP55812179		Top Green, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus		2012	2012	SP55962161		Culverhay, Alchester Road, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus		2012	2012	SP56032154		Fairground Cottage, Alchester Road, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus		2012	2012	SP56102123		1 The Green, Chesterton	nest		LN				Bird-Amber	bird
Common Swift	Apus apus	Pair	01/05/2009 - 30/07/2009	2009	SP56132124		Southern end of village near the Red Cow, Chesterton	field record	exact breeding site not known	LN				Bird-Amber	bird
Common Swift	Apus apus		01/05/2010 - 30/07/2010	2010	SP56132124		Southern end of village near the Red Cow, Chesterton	field record	exact breeding site not known	LN				Bird-Amber	bird
Fieldfare	Turdus pilaris	c.50	04/04/1999	1999	SP558221		Chesterton: Bignell House	Field Record		OOS		WACA-Sch1 (pt 1)		Bird-Red	Bird
Mistle Thrush	Turdus viscivorus		1977 - 1987	1987	SP561218		Gagle Brook Flood Plain, Chesterton	field record		BBOWT				Bird-Amber	bird
Common Linnet	Carduelis cannabina		1977 - 1987	1987	SP561218		Gagle Brook Flood Plain, Chesterton	field record		BBOWT				Bird-Red	bird
Common Linnet	Carduelis cannabina		1977 - 1987	1987	SP562220		Bignell Lodge Farm Meadow	field record		BBOWT				Bird-Red	bird
Pipistrelle	Pipistrellus pipistrellus		08/08/1995	1995	SP560216		Chesterton	field record		NE	HabDir-A4	HabReg-Sch2, WACA-Sch5_sect9.4b, 9.4c, 9.5a, 9.5b			terrestrial mammal

Status Key. Produced January 2014 by Thames Valley Environmental Records Centre

EUROPEAN DIRECTIVES

- BirdsDir-A1 - Species listed on Annex 1 of EC Directive 79/409/EEC on the Conservation of Wild Birds.
- HabDir-A2, HabDir-A4 & HabDir-A5 - Annex 2 and Annexes 4/5 respectively of the EC Habitats Directive. This is the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.

UK LEGISLATION: CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010

This legislation translates the European Habitats Directive (see above) into UK law where species are listed in Schedule 2 and Schedule 4. Species are tagged as HabReg-Sch2 or HabReg-Sch4.

UK LEGISLATION: WILDLIFE AND COUNTRYSIDE ACT 1981

Schedule 1 Wild Birds

prohibits the intentional killing, injuring or taking of any wild bird and the taking, damaging or destroying of the nest (whilst being built or in use) or eggs. It prohibits possession of wild birds (dead or alive) or their eggs. In addition:

- WACA-Sch1(pt 1) – There are additional penalties for offences relating to birds on this schedule and it is also an offence to disturb such birds at the nest or with dependent young.
- WACA-Sch1(pt 2) – Covers the protection of birds which may be killed during the open season.

(Please note that some schedule 1 bird records will refer to species that do not breed in the county, e.g. over-wintering birds such as Redwing or Fieldfare. Although we include them in the annotated records, only they and their nests, eggs and dependent young enjoy extra protection under the W&C 1981 act. If you are in any doubt about the breeding status of a bird please contact us at TVERC)

Schedule 5 Wild Animals

- WACA-Sch5_sect9.1 – covers intentional killing injuring or taking (species are covered by all or some of these)
- WACA-Sch5_sect9.2 – Covers possession or control (live or dead animal, part or derivative)
- WACA-Sch5_sect9.4a – Covers damage to or destruction of any structure or place used by a scheduled animal for shelter or protection.
- WACA-Sch5_sect9.4b – Covers disturbance of animal occupying such a structure or place.
- WACA-Sch5_sect9.4c – Covers obstruction of access to any structure or place which any such animal uses for shelter or protection
- WACA-Sch5_sect9.5a – Covers selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative).
- WACA-Sch5_sect9.5b – Covers advertising for buying or selling such things.

Schedule 8 Wild Plants

- WACA-Sch8 - Covers any picking, uprooting or destruction of plants listed on the Schedule. It also prohibits the sale, etc, or possession for the purpose of sale of any plants on the Schedule.

PRIORITY NERC S.41 2006

Species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 as a species of principle importance. These are very similar to the list of UKBAP and have superseded them. Species are tagged NERC S.41.

OTHER DESIGNATIONS: RED LISTS

Global Red List Species (tagged GlobalRed) - Species listed by the International Union for Conservation of Nature (IUCN) in the IUCN Red List of Threatened Species. Species included are from post 1994 and post 2001 lists.

GB Red List Species (tagged GBRed) - Species included in national red lists. Species included are from pre 1994 and post 2001 lists. Please note not all taxon groups are currently covered, for example fungi.

Abbreviations:

EX – Extinct A taxon is Extinct when there is no reasonable doubt that the last individual has died.

EW – Extinct in the Wild. Species known to survive only in cultivation, in captivity or as a naturalised population(s) well outside the past range.

CR – Critically Endangered (CR) Species facing an extremely high risk of extinction in the wild in the immediate future.

EN – Endangered: Species that are not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.

VU – Vulnerable: A species is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future

NT – Near Threatened – A taxon considered to likely to become endangered in the near future.

LR(cd) – Lower risk (conservation dependent)

DD – Data deficient – A taxon with insufficient data to make an assessment of its risk of extinction.

RE – Regionally Extinct – Taxa that are considered extinct within the region but populations exist elsewhere in the world.

Inde – indeterminate – based on a pre 1994 category: Taxa which are known to be Endangered, Vulnerable or Rare but with insufficient data to place them in one of the categories.

Insu – Insufficiently known - based on a pre 1994 category which equates to data deficient.

Species included here are from information compiled by JNCC (The Joint Nature Conservation Committee).

OTHER DESIGNATIONS: NATIONALLY NOTABLE SPECIES

This covers invertebrate species not falling within IUCN categories but never the less uncommon in Britain.

Nationally Notable A (Tagged Notable-A): Taxa which occur in <30 10 km (hectad) squares or for less well recorded groups within <7 vice counties.

Nationally Notable B (Tagged Notable-B): Taxa which don't fall within IUCN categories but are uncommon in Britain and occur in 31-100 10 km sq/ or for less or for less well recorded groups between 8 and 20 vice counties

Notable (Tagged Notable): Taxa known to be scarce (occurring in between 16 and 100 10km squares) but for which there is insufficient information to assign them to the above categories.

This designation comes from the National Biodiversity Network (NBN) species dictionary but is supported by JNCC.

OTHER DESIGNATIONS: NATIONALLY RARE OR SCARCE SPECIES

This designation covers species that are recognised to occur in only a few locations in Britain.

Rare (tagged as Status-NR) = occurring in 15 or fewer hectads (10 km squares) in the UK

Scarce (tagged as Status-NS) = occurring in 16 – 100 hectads in the UK.

OTHER DESIGNATIONS: BIRDS OF CONSERVATION CONCERN LISTS

These lists were drawn up by leading governmental and non-governmental conservation organizations including the RSPB and British Trust for Ornithology. The most recent version was published in May 2009.

Red List (tagged Bird-Red) - species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered.

Amber List (tagged Bird-Amber) - Amber list species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare breeders (fewer than 300 pairs), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe.

OTHER DESIGNATIONS: LOCAL BAP SPECIES

For any Local Authority that has drawn up a list of BAP species. Designations will only apply to species recorded from the Local Authority area.

Currently, only Bracknell Forest Council have such a BAP list and relevant records are tagged Bracknell LBAP.

DATA ORIGIN KEY

Data Origin Abbreviation	Origin Details
AN	Abingdon Natural History Society
ANHSO	Ashmolean Natural History Society (& Rare Plant Group)
BBG	Binfield Badger Group
BBOWT	Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust
BENHS	British Entomological Natural History Society
BFC	Bracknell Forest Council
BIG	Berkshire Invertebrate Group
BLWS	Berkshire Local Wildlife Sites Project
BMG	Berkshire Mammal Group
BOC	Berkshire Bird Clubs
BOS	Banbury Ornithological Society
BRAG	Berkshire Reptile & Amphibian Group
BRC	Biological Record Centre (Monk's Wood)
BSBBG	Berks & South Berks Bat Group
BSBI	Botanical Society of the British Isles
BTC	Banbury Town Council
BTO	British Trust for Ornithology
BUWG	Bracknell Urban Wildlife Group
CBT	Childe Beale Trust
CDC	Cherwell District Council
CRPG	Cotswold Rare Plant Group
EA	Environment Agency (formally the National Rivers Authority)
EC	Professional Ecological Consultant
ET	The Earth Trust (formally the Northmoor Trust)
FLC	Friends of Longcot Churchyard
FWAG	Farmland Wildlife Advisory Group
HA	Highways Agency
LN	Local/National Expert (known to TVERC)
LWVP	Lower Windrush Valley Project
MGLG	Moor Green Lakes Group
MOP	Member of the Public
NE	Natural England/EN/NCC
NFC	Newbury Field Club
NHM	Natural History Museum
NPD	National Ponds Database
NRG	Newbury Ringing Group
NT	National Trust
OBG	Oxfordshire Bat Group
OBRC	Oxfordshire Biological Record Centre (TVERC precursor)
OCC	Oxfordshire County Council
OLWS	Oxfordshire Local Wildlife Sites Project
OOS	Oxfordshire Ornithological Society
ORAG	Oxfordshire Reptile & Amphibian Group
OS	Otter Spotter Project
OUNHM	Oxford University Natural History Museum
OUWG	Oxford Urban Wildlife Group
OX	Oxford City Council

DATA ORIGIN KEY (Contd)


















Data Origin Abbreviation	Origin Details
PC	Pond Conservation
PL	Plantlife
PTES	People's Trust for Endangered Species
RBWM	Royal Borough of Windsor & Maidenhead
RDNHS	Reading and District natural History Society
RM	Reading Museum
RSPB	Royal Society for the Protection of Birds
RUWG	Reading Urban Wildlife Group
RWP	Reading Woodlands Plan
SODC	South Oxfordshire District Council
SW	Shotover Wildlife
TVERC	Thames Valley Environmental Record Centre
TVFG	Thames valley Fungus Group
TW	Thames Water
U	Unknown
UTBC	Upper Thames Butterfly Conservation
VCH	Victoria County History (historical records)
VWH	Vale of White Horse District Council
WB	West Berkshire District Council
WBC	Wokingham Borough Council
WILDCRU	Wildlife Conservation Research Unit
WMUWG	Windsor & Maidenhead Urban Wildlife Group
WODC	West Oxfordshire District Council
WS	Wytham Survey
WWT	Wildfowl & Wetlands Trust
YE	Yattendon Estate

Appendix C

Habitats Plan
CSa/2325/105



Legend

-  Site boundary
-  Arable
-  Improved grassland
-  Species-poor, semi-improved grassland
-  Species-poor, intact hedgerow
-  Species-poor, defunct hedgerow
-  Species-poor hedgerow with trees
-  Species-rich hedgerow with trees
-  Individual tree
-  Introduced shrub
-  Dry ditch
-  Fence
-  Hard-standing
-  Building
-  Field number
-  Hedgerow number
-  Target Note
 1. Spoil/debris heap
 2. Log pile



Project	Land west of Chesterton
Title	Habitats Plan
Client	Taylor Wimpey UK Ltd

Date	April 2014
Scale	Scale bar indicative at A4
Drawn	KK
Checked	LC

Drawing Number	CSa/2325/105
Revision	-

Appendix D

Hedgerow Assessment Results

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H1

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>73m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>1</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 3 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 2

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3								
<i>Acer camp</i> Field maple				<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime			
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse			
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe				<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>			
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x			<i>Frax exce</i> Ash		x		<i>Popu alba</i> White Poplar				<i>Pyru cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>			
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyru pyra</i>				<i>Rosa spp</i>				<i>Sorb spp</i>				<i>Ulmu spp</i> Elm			
<i>Carp betu</i> Horn-beam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>			
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose			

Woody species counts: Count 1 = 2 Count 2 = N/A Count 3 = N/A Mean count = 2

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
Arum macu Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldlocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 1

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4																	
3																	
2											X						
1																	
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H2

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>200m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>20</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 3 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 2

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3					
<i>Acer camp</i> Field maple				<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet	x			<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry	x			<i>Ulex euro</i> Gorse
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe	x			<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x	x		<i>Frax exce</i> Ash	x	x		<i>Popu alba</i> White Poplar				<i>Pyru cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyru pyra</i>				<i>Rosa spp</i>	x	x		<i>Sorb spp</i>				<i>Ulm spp</i> Elm
<i>Carp betu</i> Hornbeam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose

Woody species counts: Count 1 = 3 Count 2 = 6 Count 3 = N/A Mean count = 4.5

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
<i>Arum macu</i> Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldlocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 2

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4			X														
3																	
2																	
1																	
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H3

Borderline

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>80m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>5+</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point
 - Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
 - A hedgerow is considered 'connected' 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.
- 4 points

Total number of additional features (3-9) = 5

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3					
<i>Acer camp</i> Field maple	x			<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe	x			<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x			<i>Frax exce</i> Ash				<i>Popu alba</i> White Poplar				<i>Pyru cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyru pyra</i>				<i>Rosa spp</i>	x			<i>Sorb spp</i>				<i>Ulmu spp</i> Elm
<i>Carp betu</i> Horn-beam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose

Woody species counts: Count 1 = 4 Count 2 = N/A Count 3 = N/A Mean count = 4

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
<i>Arum macu</i> Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldilocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 3

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4						X											
3																	
2																	
1																	
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H4

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>245m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>0</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 4 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 1

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3								
<i>Acer camp</i> Field maple				<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn	x	x		<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime			
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse			
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe		x		<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>			
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn				<i>Frax exce</i> Ash				<i>Popu alba</i> White Poplar				<i>Pyrus cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>			
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyrus pyra</i>				<i>Rosa spp</i>	x	x		<i>Sorb spp</i>				<i>Ulmus spp</i> Elm			x
<i>Carp betu</i> Hornbeam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew	x	x		<i>Vibu lant</i>			
<i>Corn sang</i> Dog-wood				<i>Daph mezza</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose			

Woody species counts: Count 1 = 4 Count 2 = 4 Count 3 = N/A Mean count = 4

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
<i>Arum macu</i> Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldilocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 2

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4		X															
3																	
2																	
1																	
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H5

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>35m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>0</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 3 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 1

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3					
<i>Acer camp</i> Field maple				<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe				<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x			<i>Frax exce</i> Ash				<i>Popu alba</i> White Poplar				<i>Pyrus cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyrus pyra</i>				<i>Rosa spp</i>				<i>Sorb spp</i>				<i>Ulmu spp</i> Elm
<i>Carp betu</i> Hornbeam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose

Woody species counts: Count 1 = 1 Count 2 = N/A Count 3 = N/A Mean count = 1

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote errec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
Arum macu Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldilocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 1

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4																	
3																	
2																	
1										X							
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H6

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>40m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>0</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 2 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 1

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3								
<i>Acer camp</i> Field maple				<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime			
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse			
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe				<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>			
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x			<i>Frax exce</i> Ash				<i>Popu alba</i> White Poplar				<i>Pyrus cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>			
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyrus pyra</i>				<i>Rosa spp</i>				<i>Sorb spp</i>				<i>Ulmus spp</i> Elm			
<i>Carp betu</i> Hornbeam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>			
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose			

Woody species counts: Count 1 = 1 Count 2 = N/A Count 3 = N/A Mean count = 1

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	Geum urba Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
Arum macu Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldilocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 2

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes/ No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in ‘Red Data Birds in Britain’
- Categorised as ‘endangered’, ‘extinct’, ‘rare’ or ‘vulnerable’ in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7																	
6																	
5																	
4																	
3																	
2																	
1		X															
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying ‘important’ hedges not qualifying on the basis of the species listed in the ‘desk based study’ section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes:

General Details:

Project Number: 2325

Date: 04/04/2014

Surveyor: KK + CT

Site Address: Chesterton

Hedge Number: H7

Not Important

Field Based Study:

Walk the hedge on one or (where access is available) both sides and for each hedge record the following information:

Section A:

- | | |
|---|---------------------|
| 1. Hedge Length | <u>45m</u> |
| 2. Number of standard trees (20cm diam. at 1.3m for single stemmed, 15cm diam. for multi stemmed) | <u>5+</u> |
| 3. Is there a bank or wall which supports the hedgerow along at least one half of its length? | Yes / No |
| 4. Are there gaps in aggregate $\leq 10\%$ of the length of the hedgerow? | Yes / No |
| 5. Is there at least one standard tree per 50m of hedge? | Yes / No |
| 6. Is there a ditch along at least one half of the length of the hedgerow? | Yes / No |
| 7. Is a parallel hedge present within 15m? | Yes / No |
| 8. Are there three or more woodland species? (see table below) | Yes / No |
| 9. Are there connections scoring at least 4 points in total? | Yes / No |

Connections to be scored as follows:

- Connections with another hedgerow score 1 point 5 points
- Connections with a pond or woodland in which the majority of trees is broad-leaved scores 2 point
- A hedgerow is considered 'connected' 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.

Total number of additional features (3-9) = 5

- | | |
|--|---------------------|
| 10. Is the hedge either adjacent to bridleway or footway, a road used as a public footpath or a byway open to traffic? | Yes / No |
|--|---------------------|

Section B:

For all woody species, undertake woody species counts as follows:

- i). For Hedges up to 30m long, count total number of woody species and tick off the species in column one.
- ii). For hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch of each half of the hedge and the tick species off in column 1.
- iii). For hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch of each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (i.e. divide the total count by two).
- iv). For hedges exceeding 200m in length, do 3 woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1,2 and 3 and calculate the mean count (i.e. divide the total count by three).
- v). In addition, ring all woody species recorded in the hedge for a total species list.

CSa Environmental Planning – Hedgerow survey sheet (Hedgerows Regulations 1997)

	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3					
<i>Acer camp</i> Field maple	x			<i>Cory Avell</i> Hazel				<i>Euon euro</i> Spindle tree				<i>Juni comm</i> Juniper				<i>Prun aviu</i> Wild Cherry				<i>Rham cath</i> Common buckthorn				<i>Sali spp</i>				<i>Tili plat</i> Large leaved lime
<i>Alnu glut</i> Alder				<i>Coto Inte</i>				<i>Fagu sylv</i> Beech				<i>Ligu vulg</i> Privet				<i>Prun padu</i> Bird Cherry				<i>Ribe alp</i> Alpine currant				<i>Samb nig</i> Elderberry				<i>Ulex euro</i> Gorse
<i>Betu pend</i> Silver Birch				<i>Crat Laev</i> Midland Hawthorn				<i>Fran alnu</i> Alder buckthorn				<i>Malu sylv</i> Crab apple				<i>Prun spin</i> Sloe				<i>Ribe spic</i> Nordic currant				<i>Sorb aucu</i> Mountain ash				<i>Ulex gall</i>
<i>Betu pube</i> White birch				<i>Crat Mono</i> Hawthorn	x			<i>Frax exce</i> Ash				<i>Popu alba</i> White Poplar				<i>Pyru cord</i> Plymouth Pear				<i>Ribe uv-cr</i> Gooseberry				<i>Sorb torm</i> Wild service tree				<i>Ulex mino</i>
<i>Buxe semp</i>				<i>Cyti Scop</i> Broom				<i>Hipp rham</i> Sea buckthorn				<i>P x can</i> Canadian Poplar				<i>Pyru pyra</i>				<i>Rosa spp</i>				<i>Sorb spp</i>				<i>Ulmu spp</i> Elm
<i>Carp betu</i> Hornbeam				<i>Daph Laur</i> Spurge Laurel				<i>Ilex aqui</i> Holly				<i>P nig bet</i>				<i>Quer petr</i> Sessile Oak				<i>Rusc acul</i> Butcher's broom				<i>Taxu bacc</i> Yew				<i>Vibu lant</i>
<i>Corn sang</i> Dog-wood				<i>Daph mezze</i> Mezereon				<i>Jugl regi</i> Walnut				<i>Popu trem</i>				<i>Quer robu</i> Pedunculate Oak				<i>Sali vimi</i> Osier				<i>Tili cord</i> Small leaved lime				<i>Vibu opul</i> Guelder Rose

Woody species counts: Count 1 = 2 Count 2 = N/A Count 3 = N/A Mean count = 2

Section C

All woodland species within 1m of the outermost edges of the hedgerow (see list below):

<i>Adox mosc</i> Moschatel	<i>Brom ramo</i> Hairy broom	<i>Dryo f-mas</i> Male ern	<i>Geum urba</i> Wood avens	<i>Meli unif</i> Wood Melick	<i>Poly vulg</i> Milkwort	<i>Viol odor</i> Sweet violet
<i>Ajug rept</i> Bugle	<i>Camp trac</i> Nettle-leaved bell-flower	<i>Epip hell</i> Broad-leaved helleborine	<i>Hyac non-s</i> Bluebell	<i>Merc pere</i> Dog's mercury	<i>Pote erec</i> Tormentil	<i>Viol reic</i> Early dog violet
<i>Alli ursi</i> Ramsons	<i>Camp lati</i> Great bell-flower	<i>Equi sylv</i> Wood horsetail	<i>Lami gale</i> Yellow archangel	<i>Mili effu</i> Wood millet	<i>Pote ster</i>	<i>Viol rivi</i> Common dog violet
<i>Anem nemo</i> Wood anemone	<i>Care sylv</i> Wood sedge	<i>Euph amyg</i> Wood spurge	<i>Lath squa</i> Toothwort	<i>Orch masc</i> Early purple orchid	<i>Prim elat</i> Oxlip	
<i>Arum macu</i> Lords-and-ladies	<i>Circ lute</i> Enchanter's nightshade	<i>Fest giga</i> Giant fescue	<i>Luzu pilo</i> Hairy woodrush	<i>Oxal acet</i> Wood sorrel	<i>Prim vulg</i> Primrose	
<i>Aspl scol</i> Hart's tongue	<i>Cono maju</i> Pig nut	<i>Frag vesc</i> Wild strawberry	<i>Luzu sylv</i> Great woodrush	<i>Pari quad</i> Herb Paris	<i>Ranu auri</i> Goldilocks buttercups	
<i>Athy fil-fem</i> Lady fern	<i>Dryo affi</i> Scaly male-fern	<i>Gali odor</i> Woodruff	<i>Lysi nemo</i> Yellow pimpernel	<i>Poa nemo</i> Wood meadow-grass	<i>Sani euro</i> Wood sanicle	
<i>Blec spic</i> Hard fern	<i>Dryo cart</i> Narrow buckler fern	<i>Gali saxa</i> Heath bedstraw	<i>Mela prat</i> Common cow-wheat	<i>Poly acul</i> Hardshield fern	<i>Tuec scor</i> Wood sage	
<i>Brac sylv</i> Wood false-broom	<i>Dryo dila</i> Broad buckler fern	<i>Gera robe</i> Herb robert	<i>Mela sylv</i> Small cow-wheat	<i>Poly seti</i> Soft shield fern	<i>Vero mont</i> Woodspeedwell	

Total Number of woodland species: 3

Desk Based Study:

Is the hedge known to support any of the following categories of species?

Yes / No

- Those listed in Part 1 of Schedule 1 (birds protected by special penalties) of the Wildlife and Countryside Act 1981
- Those listed in Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981
- Those listed in schedule 8 (plants which are protected) of the Wildlife and Countryside Act 1981
- Categorised as a declining breeder (category 3) in 'Red Data Birds in Britain'
- Categorised as 'endangered', 'extinct', 'rare' or 'vulnerable' in one of the Red data books (see regulations for details)

If yes state which:

Evaluation:

		Adjacent to bridleway, road used as a public path or a byway open to all traffic ?															
		No							Yes								
≥7 6 5 4 3 2 1	≥7	/															
	6			/							/						
	5				/							/					
	4					/						/					
	3												/				
	2												/				
	1												/				
		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
		Number of additional features							Number of additional features								

Table for identifying 'important' hedges not qualifying on the basis of the species listed in the 'desk based study' section above. Hedges falling within dark shaded and crossed boxes are important. Those falling within other shaded boxes would qualify as important if the number of additional features or woody species count were to increase by one. They are therefore considered to be borderline (in such cases there is a reasonable likelihood that a different surveyor or survey at a different season would result in the hedge being judged important).

The Y axis + the number of woody species. The X axis + number of additional features

Map / Notes: