

LAND AT LONG LANE, NEWBURY

Preliminary Ecological Appraisal

for

Donnington New Homes

January 2021

THE **Landmark**
PRACTICE

Hope Chapel House
Hope Chapel Hill
Hotwells
Bristol BS8 4ND
United Kingdom

Tel: +44 (0)117 923 0455

enquiries@thelandmarkpractice.com
www.thelandmarkpractice.com

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**D denotes a Draft version*

The information which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Tel: 0117 923 0455

EXECUTIVE SUMMARY

The Landmark Practice was commissioned by Donnington New Homes in December 2020, to undertake a Preliminary Ecological Appraisal to inform master planning and the promotion of a site at Long Lane, Newbury for residential development. The purpose of this report is to identify the ecological constraints and opportunities presented by the site in order to assess its potential to accommodate residential development and its capacity to deliver future housing needs. This report describes ecological survey work undertaken, considers the impacts of the proposed development on the ecology of the site and environs and describes suitable avoidance, mitigation and enhancement measures to address predicted impacts.

A desk study was undertaken to find details of designated sites and legally protected and notable species records within the zone of influence of the site. A Phase 1 habitat survey and protected species assessment was conducted of the site in December 2020 to map the habitats present and highlight potential for protected species to occur. This Preliminary Ecological Appraisal Report assess the potential impacts of a residential development at this site on biodiversity.

The site comprises of three arable fields bounded by hedgerows and woodland. The site was considered to offer potential to support the following protected species: badger, bats, breeding birds, wintering birds, reptiles, great crested newts and dormouse. Should the site be taken forward and a planning application be prepared, further surveys will be required to inform the planning application (as summarised below) and the mitigation strategy that is set out within this report may need to be amended to take account of the survey results.

Summary of Further Survey Work Required

- Pre-commencement badger survey;
- Ground level tree assessments for bats;
- Bat activity surveys;
- Breeding bird survey;
- Wintering bird scoping survey; and
- Great crested newt eDNA survey.

Summary of Enhancement and precautionary methods of works recommended

- Biodiversity Net Gain assessment, to result in no less than 10% enhancement of baseline habitat value;
- Preparation of a Construction Environmental Management Plan (CEMP) (to include specifications for fencing to protect the hedgerows within the site and woodland adjacent to the site; precautionary working methods to protect badger, hedgehogs and reptiles and sensitively timed works to protect nesting birds);
- Soft landscaping scheme to include native species of local provenance that are nut and seed bearing;
- Permeability of the site for wildlife during operation (gaps in fencing); and
- Adherence to General good working practice.

Subject to informed scheme design, including retention of features of greatest ecological interest, future development of the site can be achieved without significant negative ecological impact. The potential presence of any European Protected Species or notable species is unlikely to preclude or significantly limit the capacity of the site to deliver housing.

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1.0 INTRODUCTION

1.1 The Landmark Practice (TLP) is an award winning multi-disciplinary consultancy offering bespoke and integrated services in ecology, environmental planning, landscape architecture and architectural graphics. We are a CIEEM¹ Registered Practice and are independent and respected, working on a large range of development projects for our clients throughout the UK. Full details of the practice can be found at <http://thelandmarkpractice.com/>.

1.2 In October 2020 TLP was commissioned by Donnington New Homes to assess the potential ecological impacts associated with a proposed housing development on Land at Long Lane, Newbury, hereafter referred to as 'the site.'

Site Location and Description

1.3 The site is located on the northern edge of Newbury and comprises three arable fields, two to the west and one to the east of the B4009 (Long Lane), totalling 16.6 ha in area. The approximate central grid reference is SU 482 689, **Figure 1** refers. The Local Planning Authority is West Berkshire Council.

1.4 A large triangular field is present on the eastern side of Long Lane, referred to as the 'eastern land parcel'. Two large arable fields are present on the western side of Long lane, referred to as the 'western land parcel.' The boundary features consist of hedgerows, fences and woodland.

1.5 Within the wider landscape, the town of Newbury is situated to the south-west and patches of woodland, pasture and arable make up the habitat surrounding the site.

Development Proposals

1.6 The proposed development is for a residential development of between 210 and 260 houses. A preliminary concept plan has been prepared with the input of highways, drainage, landscape and ecological (TLP) consultants. The concept site layout is shown in **Appendix A**.

Scope of Assessment

1.7 This Preliminary Ecological Appraisal sets out the findings of the desk based and field-based ecological assessment, undertaken by TLP during 2020. The report considers the potential for ecological impacts to occur and outlines opportunities for avoidance, mitigation and enhancement measures based upon the development proposals in the context of relevant legislation and planning policy.

1.8 The aims of this report are to:

- Define the ecological baseline, identifying important ecological features that are of relevance to the proposals;
- Detail avoidance, mitigation and compensation measures where necessary; and
- Identify potential opportunities to enhance and add to the biodiversity resource within the site and surrounding landscape in line with local and national planning policy.

¹ Chartered Institute of Ecology and Environmental Management (CIEEM) [Registered Practice](#)

2.0 LEGAL AND PLANNING CONTEXT

Legal Context

- 2.1 A range of habitats and species that may actually or potentially be present at the site are afforded legal protection under domestic and European legislation (**Appendix B** refers).

Planning Policy Context

- 2.2 Local and National Planning Policy has been considered within the assessment. The relevant Development Plan policies are reproduced in (**Appendix B**).

3.0 METHODS

- 3.1 The method for carrying out this assessment follows standard guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2019). The assessment has been undertaken by appropriately qualified ecologists using recognised best practice methodologies wherever possible and where these exist. Reasons for any deviation from best practice methodologies are provided below, but usually relate to timing of instruction, access restrictions and/or application of professional judgement, as appropriate.

Desk Study

- 3.2 The desk study involved the collation and review of contextual information such as designated sites and past records of protected and priority species occurring within the potential zone of influence of the site.
- 3.3 The desk study involved collating information from the following sources:
- Thames Valley Environmental Records Centre (TVERC);
 - Multi-Agency Geographic Information for the Countryside (MAGIC);
- 3.4 The desk study was undertaken during January 2021. **Table 1** provides a summary of the information obtained:

Table 1: Desk Study Data Sources

Data	Search area	Source	Justification of search area
Species			
Protected & notable species	2 km	1	The works footprint/zone of influence is minimal in relation to retained habitats within the immediate landscape.
Extended search for bats	5 km	1	
European protected species licence applications EPSL	4 km	2	
S41 species	1 km	2	
Non-native invasive species	1 km	1	
Habitats			
S41 Habitats	1 km	2	As above
Ancient woodland	1 km	2	
Sites			
Statutory protected sites – impact zones	Within the site	2	As above

Non-Statutory protected sites (e.g., LWS)	2 km	1	
National statutory protected sites	5 km	2	
International statutory protected sites	10 km	2	
Notes			
1 = Thames Valley Environmental Records Centre. Received 18/12/2020			
2= MAGIC (Multi-Agency Geographic Information Centre website (http://www.magic.gov.uk/). Accessed: 18/01/2021			

- 3.5 In light of the scope of the project, the abovementioned search areas are considered sufficient to cover the potential zone of influence of the project in relation to designated sites, habitats and species. Geological designated sites have not been included as these are not relevant to the ecological assessment. Biological records that are no more than 10 years old have been included.

Preliminary Ecological Appraisal – Field Surveys

Phase 1 Habitat Survey

- 3.6 The Phase 1 habitat survey (JNCC, 2010 & IEA, 1995) was conducted of the site on 16th December 2020 by two suitably experienced ecologists from TLP to assess the ecological value of the site and record habitats present. The survey covered the site and its immediate surroundings. Conditions during the survey were 100 % cloud cover, light rain, 9.5°, Wind 2 (Beaufort).
- 3.7 The Phase 1 habitat survey followed standard methodology published by the Joint Nature Conservation Committee (2010). Each identifiable and definable land parcel was assigned a habitat (as defined by the JNCC). Dominant plant species present were recorded in accordance with plant species nomenclature in Stace (2010). This level of survey does not aim to compile a complete floral and faunal inventory for the site.
- 3.8 The habitats recorded using the JNCC Phase 1 habitat descriptions were reviewed in relation to S41 Priority Habitats.

Protected Species Assessment

- 3.9 As part of the appraisal, the site was assessed for its potential to contain protected or notable species. The assessment was based on the habitats present on site and their suitability for protected species. Further information on the legal protection of these species is presented in **Appendix B**. Protected species assessed for, but not limited to, were:

- Badger (*Meles meles*);
- Bats;
- Dormouse (*Muscardinus avellanarius*);
- Birds (nesting, wintering and arable);
- Otter (*Lutra lutra*);
- Water vole (*Arvicola amphibius*);
- Amphibians (inc. Great crested newt (*Triturus cristatus*));
- Reptiles;

- Invertebrates; and
- White clawed crayfish (*Austropotamobius pallipes*).

3.10 In addition, a search was made for evidence of non-native, invasive species.

Badger Survey

3.11 A full badger survey was undertaken at the same time as the Phase 1 Habitat survey following the standard methodology (Harris, et al, 1989) and with regard to more recent reviews and comment on these methods.

3.12 The overall suitability of the existing habitats within the site for badger breeding and foraging was also assessed during the field survey.

Categorisation of Habitat suitability for Bats

3.13 Following the Phase 1 habitat survey the habitat on site was categorised according to its likely value for bats (on a scale of negligible, low, moderate or high potential for commuting and foraging bats). The categories are based on the observations and information set out in **Table 2**, which is based on current best practice guidelines (Collins, 2016).

Table 2: Categorisation of Foraging Habitat

Suitability	Rationale
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats (such as a gappy hedgerow or un-vegetated stream), but isolated, i.e., not very well connected to the surrounding landscape by another habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river, valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Amphibians

3.14 A desk-based scoping exercise was undertaken using Ordnance Survey (OS) maps and aerial photographs to highlight any ponds within 500 m of the site that could potentially support great crested newts (GCN). The 500 m search parameter is based on the '*Great Crested Newt Mitigation Guidelines*' (English Nature, 2001), which advise that ponds up to 500 m away from a development site should be surveyed if it is considered likely that great

crested newt populations centred on those ponds could be affected by changes to the site. A total of two waterbodies were identified within 500 m.

- 3.15 No access was possible to either of the waterbodies. A waterbody is thought to be present 340 m north-west of the western land parcel most northern point. Another waterbody is thought to be present 370 m north-east associated with Mousefield Farm.

Notes and Limitations

Desk Study

- 3.16 The lack of records for a species within the search area does not necessarily indicate the absence of the species but could merely be the lack of recording within that area.

Phase 1 Habitat Survey

- 3.17 Phase 1 habitat surveys can be undertaken at any time of the year; however, the optimum time of year for these surveys to be undertaken is between April and September (inclusive). This survey was undertaken outside the optimal period (in December) However given the limited diversity of habitats present, it is considered that this limitation has not constrained the results in this report.
- 3.18 The survey area was visited over the period of one day. As such seasonal variations could not be observed and it is likely that only a selection of all species that occur within the site will have been recorded. However, it is considered that the combination of historic records from the desk study and the site visit provides an accurate representation of the various habitat types present at the site and their potential to support protected species. Timing of survey is therefore not considered to be a limitation to the study.

Longevity of Baseline Data

- 3.19 The evidence set out in this report describes the characteristics of the site at the time at which the survey was undertaken. Many species of wildlife are highly mobile by nature and will routinely take advantage of new opportunities, which arise within their home ranges (CIEEM, 2019). Over time this will alter the baseline conditions present at the site. Should there be delays in the delivery of this project, it is possible that the baseline ecology will change. In the event that development of the site does not commence within the next 12-18 months, advice on the implications of potential changes at the site should be sought from a suitably experienced ecologist.

Nomenclature

- 3.20 Plant species nomenclature follows New Flora of the British Isles 3rd Edition (Stace, 2010) and bird species nomenclature follows the British Ornithologists' Union (BOU) English vernacular names in The British List: A Checklist of Birds of Britain (9th edition, 2017). Mammal nomenclature follows Mammals of the British Isles: Handbook 4th Edition (Harris and Yalden, 2008).

4.0 RESULTS

4.1 This section details the baseline ecological conditions within the site's potential zone of influence and assesses the value of important ecological features, which are relevant to the assessment in the context of the proposed development. Relevant Appendices and Figures to the rear of this report.

Designated Sites

Statutory Designated Sites

4.2 Statutory designations often represent the most significant ecological receptors, being of recognised importance at an international and/or national level. International designations include Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites. Whilst national designations include Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNRs) and Local Nature Reserves (LNR).

4.3 The site is not covered by any such designation. There are, however, sites covered by such designations within the site's potential zone of influence, described in **Table 3** below and shown in **Figure 2**.

Table 3: Statutory Designated Sites within the site's potential Zone of Influence.

Name of Site and Designation	Approximate Distance/Direction from Site	Feature(s) of interest.
International		
Kennet & Lambourn Floodplain SAC	2.2 km south-east	Annex I habitat that is a primary reason for selection of this site is Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)
River Lambourn SAC	5.9 km north-west	Annex I habitat that is a primary reason for selection of this site: <ul style="list-style-type: none"> Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation Annex II species that are a primary reason for selection of this site: <ul style="list-style-type: none"> Bullhead <i>Cottus gobio</i> Annex II species present as a qualifying feature, but not a primary reason for site selection: <ul style="list-style-type: none"> Brook lamprey <i>Lampetra planeri</i>
Kennet Valley Alderwood SAC	7.35 km west	Annex I habitat that is a primary reason for selection of this site: <ul style="list-style-type: none"> Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)
National		
River Lambourn SSSI	550 m south	The River Lambourn is designated for the habitat of lowland chalk river. Reasons for designation are the aquatic plant communities including the following species:

Name of Site and Designation	Approximate Distance/Direction from Site	Feature(s) of interest.
		<ul style="list-style-type: none"> • pond water crowfoot <i>Ranunculus peltatus</i>; • fool's watercress <i>Apium nodiflorum</i>; • moss <i>Fontinalis antipyretica</i>. <p>The occurrence of the pollution-sensitive red algae <i>Lemanea fluviatilis</i> in the Upper Lambourn appears to be unique on the lowland southern rivers. This species is usually found in upland streams.</p> <p>At least five nationally scarce invertebrates have been recorded from the River Lambourn –</p> <ul style="list-style-type: none"> • predatory flatworm <i>Crenobia alpina</i> scarce in lowland Britain. • beetle <i>Rhantus saturalis</i>, • caddis flies <i>Matelype fragilis</i> and <i>Ylodes conspersus</i> usually restricted to calcareous river and streams.
River Kennet SSSI	1.25 km south	<p>The River Kennet has a catchment dominated by chalk with the majority of the riverbed being lined by gravels.</p> <p>The flora of the River Kennet is species-rich and diverse, having the highest average number of species per site surveyed of any other lowland river in Britain. Aquatic invertebrates are abundant and the Kennet is especially noted for its large hatches of mayflies (<i>Ephemeroptera</i>), including <i>Ecdyonorus insignis</i> and <i>Ephemerella notata</i> which have a very local distribution.</p> <p>The Kennet supports good populations of kingfisher, grey wagtail, mute swan and little grebe, as well as sedge and reed warblers. Common sandpiper and redshank frequently use this river on passage. The Kennet has a varied and mixed fishery including healthy, self-sustaining populations of wild brown trout, grayling, perch, chub, dace, roach, pike, gudgeon and bullhead.</p>
Snelsmore Common SSSI	2.1 km north-west	<p>The SSSI consists of a variety of woodland and heathland habitats comprising dry heath, wet heath, valley mire (bog), birch woodland and ancient semi-natural broadleaved woodland. These support specialised communities of plants and animals, including many species, local or rare in Berkshire. Of particular interest is the valley mire, both botanically and for its well-preserved peat remains which have been used in stratigraphic studies of prehistoric changes in vegetation and land-use.</p>
Thatcham Reed Beds SSSI	2.2 km south-east	<p>Thatcham Reed Beds is important nationally for its extensive reedbed, species rich alder woodland and fen habitats. The latter supports Desmoulin's whorl snail, which is of national and European importance. A large assemblage of breeding birds including nationally rare species such as Cetti's warbler is also</p>

Name of Site and Designation	Approximate Distance/Direction from Site	Feature(s) of interest.
		associated with the reedbed, fen and open water habitats found at Thatcham Reed Beds.
Kennet Valley Alderwoods SSSI	3.1 km south-west	These woodlands are the largest remaining fragments of damp, ash-alder woodland in the Kennet floodplain. The woods are important because they support a very great diversity of plants associated with this woodland type and display a complete transition from open water and swamp through to relatively dry woodland. Floodplain woodlands exhibiting this complete transition are rare throughout Europe.
Greenham and Crookham Commons SSSI	3.3 km south	This site comprises of an extensive complex of heathland, grassland, gorse scrub, broad leaved woodland and alder-lined gullies. Much of the heathland and grassland has been maintained by regular mowing within the perimeter of the Greenham Common airbase while the woodland and scrub, predominantly on areas outside the airbase perimeter, has developed with little intervention. The site also includes one large ancient coppice woodland, Peckmoor Corpse. The heathland and acid grassland at this site make up the single largest tract of these habitats in Berkshire.
Bowdown and Chamberhouse Woods SSSI	3.6 km south-east	The higher ground supports heathland, acid grassland, mixed scrub with birch, oak, hawthorn and birch, hazel, rowan, cherry and, locally, wych elm. Where the ground becomes wetter alder and willows <i>Salix fragilis</i> , <i>cinerea</i> and <i>caprea</i> appear, but below this onto the clay the woodland is dominated by ash and contains field maple, English elm, aspen, crab apple, blackthorn, dogwood, guelder rose <i>Viburnum opulus</i> and field rose <i>Rosa arvensis</i> . The insect fauna is very rich with, for example, purple emperor <i>Apatura iris</i> , white admiral <i>Limenitis camilla</i> , purple hairstreak <i>Thecla quercus</i> and grayling butterflies, and at least ten species of dragonfly including <i>Agrion virgo</i> , <i>Cordulegaster boltonii</i> and <i>Anax imperator</i> .
Kennet and Lambourn Floodplain SSSI	4.5 km west	The catchment of the River Kennet forms a major stronghold in England for the nationally rare and declining Desmoulin's and whorl snail <i>Vertigo moulinsiana</i> . One of the areas, Eddington Marsh, is one of the largest surviving examples of agriculturally unimproved pasture in the Kennet Valley supporting species-rich grassland. Rack Marsh supports a number of locally uncommon plants.
SAC: Special Area of Conservation SSSI: Site of Special Scientific Interest		

4.4 The site lies within the SSSI risk impact zone for River Lambourn SSSI.

Non-Statutory Designated Sites

- 4.5 Non-statutory designations are 'local sites' which are commonly of at least County level importance and which receive protection under local planning policy only. In Berkshire these sites are referred to as Local Wildlife Sites (LWS). Other wildlife sites are Berkshire, Buckinghamshire, Oxfordshire Wildlife Trust Sites (BBOWT).
- 4.6 The site is not covered by any such designation. The desk study identified 16 non-statutory designated sites within 2 km of the site and these are summarised in **Table 4** below.

Table 4: Non-Statutory Designated Sites within the site's potential Zone of Influence.

Name of Site and Designation	Approx. Distance/ Direction from the Site	Feature(s) of Interest)
Messenger's Corpse LWS	0.13 km east	This LWS is ancient woodland.
Brick Kiln Wood LWS	0.2 km west	This LWS is ancient woodland.
Mousefield Corpse LWS	0.35 km east	Lowland mixed deciduous woodland.
Yate's Corpse LWS	0.65 km east	This LWS is ancient woodland.
High wood LWS	0.71 km west	This LWS is ancient woodland and Lowland mixed deciduous woodland.
Stone Corpse LWS	0.76 km east	Lowland mixed deciduous woodland and red kite.
Sett Corpse LWS	0.91 km east	This ancient woodland site has been replanted with hybrid black poplars.
Weavers Wood LWS	1 km north-east	Lowland mixed deciduous woodland.
Lambourn Valley LWS	1 km south-west	Chalk river
Easton Corpse LWS	1.16 km north-east	Lowland mixed deciduous woodland.
Carrotty Cow Leave/Round corpse LWS	1.5 km north-east	Lowland mixed deciduous woodland and wet woodland.
Mill Pond Field LWS	1.65 km south-west	Remnant fen.
Packer's & Kiln Corpsey LWS	1.9 km west	The LWS comprises two main woodland types; lowland beech and yew woodland and lowland mixed deciduous woodland.
Donnington grove Park LWS	1.9 km south-west	Eutrophic Standing Water. The presence of native bluebell and notable birds.
Two Rivers BBOWT	1.5 km south-east	Two Rivers is a small wet woodland reserve located in Newbury.
Snelsmore Common BBOWT	1.9 km west	Heathland and woodland.
LWS = Local Wildlife Site BBOWT = Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust		

Habitats of Principal Importance and Ancient Woodland

- 4.7 The desk study identified no Habitats of Principal Importance or Ancient Woodland present within the site. Several areas of these habitats are present within the 1 km search

radius. **Table 5** provides a summary of Habitats of Principal Importance within the 1 km search area.

Table 5: Habitats of Principal Importance

Habitat	Summary of Features	Total No within 1 km	Distance from site of nearest feature
Deciduous woodland	Semi-natural deciduous woodland.	9	Adjacent to the west of the site
Wood-pasture and Parkland	Pasture.	1	0.4 km south-east
Ancient woodland	Areas of woodland that have persisted since 1600 or earlier, relatively undisturbed.	5	0.12 km west

Habitats

4.8 The principal habitats within and around the site, together with their dominant/characteristic plant species, were identified during the Phase 1 habitat survey. The distribution of different habitat types within the site are mapped in **Figure 3**, illustrative photographs and target notes are also provided in **Appendix C**.

4.9 Habitats recorded within the footprint of the site or directly adjacent to the site were:

- Semi-natural broad-leaved woodland (A1.1.1);
- Dense/Continuous Scrub (A2.1);
- Scattered Scrub (A2.2);
- Broadleaved scattered trees (A3.1);
- Neutral semi-improved grassland (B2.2);
- Poor semi-improved grassland (B6);
- Tall ruderal (C3.1);
- Arable (J1.1);
- Intact species-poor hedge (J2.1.2);
- Species-poor hedge and trees (J2.3.2);
- Fence (J2.4);
- Buildings (J3.6); and
- Bare ground (J4).

Semi-natural broad-leaved woodland (A1.1.1)

4.10 Semi-natural broad-leaved woodland is present along two boundaries but outside of the site boundary. Woodland is present along the eastern land parcel's eastern edge and the western land parcel's south-western edge (see **Figure 3**). Species present within the woodland included holly (*Ilex aquifolium*), ash (*Fraxinus excelsior*), blackthorn (*Prunus*

spinosa), dog rose (*Rosa canina*), apple (*Malus* sp.), English oak (*Quercus robur*), elder (*Sambuca nigra*), willow species (*Salix* sp.), English elm (*Ulmus minor*), sycamore (*Acer pseudoplatanus*), bramble (*Rubus fruticosus* agg) hazel (*Corylus avellana*), yew (*Taxus baccata*). The ground flora consisted of ivy (*Hedera helix*), and dogs mercury (*Mercurialis perennis*).

Dense/continuous scrub A2.1 and Scattered scrub A2.2

- 4.11 A number of small areas of dense or scattered scrub are present within the site, dominated by bramble. Other species present included stinging nettle (*Urtica dioica*) and Russian comfrey (*Symphytum x uplandicum*).

Scattered/lines of broadleaved trees A3.1

- 4.12 A line of mature trees are adjacent to the eastern land parcel's southern edge along the boundary with the cemetery. Species present included sycamore and common lime (*Tilia x europaea*).

Neutral Semi-improved grassland B2.2

- 4.13 An area of neutral, semi-improved grassland is present on top of an earth bund at the southern end of the eastern land parcel. Grass species present included false oat grass (*Arrhenatherum elatius*), cocks' foot (*Dactylis glomerata*), perennial ryegrass (*Lolium perenne*), red fescue (*Festuca rubra*) and creeping bent (*Agrostis stolonifera*).
- 4.14 Forb species present include cleavers (*Galium aparine*), stinging nettle, dock species (*Rumex* sp.), white clover (*Trifolium repens*), yarrow (*Achillea millefolium*), black knapweed (*Centaurea nigra*), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), common sow thistle (*Sonchus oleraceus*), white dead nettle (*Lamium album*), cow parsley (*Anthriscus sylvestris*) and creeping thistle (*Cirsium arvense*).

Poor semi-improved grassland B6

- 4.15 Species poor semi-improved grassland was present along the edge of the field margins. Species present within these areas include cocks' foot, perennial ryegrass, stinging nettle, white dead nettle, cleavers, mugwort (*Artemisia vulgaris*), common mouse ear chickweed (*Cerastium fontanum*) and hogweed (*Heracleum sphondylium*).

Tall ruderal C3.1

- 4.16 Several small patches of tall ruderal are present around the boundaries of the site. These were dominated by stinging nettle.

Arable J1.1

- 4.17 The majority of the site comprised of three arable fields.

Intact species-poor hedge J2.1.2

- 4.18 Several of the field boundaries were comprised of managed, species poor intact hedgerows. These hedgerows were dominated by common hawthorn (*Crataegus monogyna*) and blackthorn. Other species present included elder, dog rose, alder buckthorn (*Frangula alnus*) old man's beard (*Clematis vitalba*) and field maple (*Acer campestre*)

Species-poor hedge and trees J2.3.2

- 4.19 A species poor hedge with trees runs along the eastern edge of Long Lane. The tree species present were common lime. The hedge was dominated by common hawthorn and other species present included blackthorn, alder buckthorn and rose species (*Rosa* sp.)

Fence (J2.4)

- 4.20 Several fences are present along the boundary features, these were a mix of barbed wire stock fencing and ornate metal fences.

Buildings (J3.6)

- 4.21 A small derelict shed is present adjacent to the site (see **Figure 3**). This was constructed from corrugated metal and the roof had collapsed.

Bare ground (J4)

- 4.22 Two bare earth tracks are present; a public footpath along the cemetery edge and a driveway leading to Highwood Farm.

Evaluation

- 4.23 Overall, habitats within the site are considered to be of low intrinsic ecological value due to the limited quality, distinctiveness and extent of the habitats present. The habitats are common and widespread but do offer opportunities for a range of protected species across the site, as discussed below.

Species

Badger

- 4.24 The data search returned nine records of badger within 2 km of the site.
- 4.25 Evidence of badger foraging was noted within the site during the survey. This was predominantly focused on the arable field margins. Evidence comprised snuffle holes and latrines, with frequent mammal paths around the site which are likely to have been at the least partially used by badgers.
- 4.26 A Confidential Badger Report has been produced for the site, this can viewed upon request (contact The Landmark Practice).
- 4.27 Badgers are using the site for foraging.

Bats

- 4.28 The data search returned 825 records within 5 km of the site in the past 10 years. These were:
- Common pipistrelle (*Pipistrellus pipistrellus*);
 - Soprano pipistrelle (*Pipistrellus pygmaeus*);
 - Nathusius's Pipistrelle (*Pipistrellus nathusii*);
 - Daubenton's Bat (*Myotis daubentonii*);
 - Serotine (*Eptesicus serotinus*);
 - Noctule (*Nyctalus noctula*);

- Whiskered (*Myotis mystacinus*);
- Natterer's (*Myotis nattereri*);
- Brown long-eared (*Plecotus auritus*); and
- Western barbastelle (*Barbastella barbastellus*).

4.29 The majority of these records were field records (i.e., records of bats in flight), other records from injured bats and bat box checks. There are also records of roosts, the majority of which relate to small and occasionally used roosts. None of these records fall within the site boundary.

4.30 In addition, there are six records of European Protected Species Licensing (EPSL) within 4 km of the site (**Table 6** refers).

Table 6: Granted EPSL Records Present Within 4 km Search Radius.

Date of Granted Application	Species	Licensable Activity	Approximate Distance from Site
2016	C-PIP,S-PIP	Destruction of a resting place.	1.5 km south-west
2013	C-PIP;S-PIP;BLE	Destruction of a resting place.	1.6 km north-west
2014	BLE,C-PIP	Destruction of a breeding site and destruction of a resting place.	2.3 km north-west
2012	C-PIP;BLE	Destruction of a resting place.	2.3 km south-east
2009	C-PIP;BLE	Destruction of a breeding site and destruction of a resting place.	3 km south-west
2011	S-PIP;BLE	Destruction of a resting place.	3.3 km south-west

KEY: C-PIP = Common pipistrelle, S-PIP = Soprano pipistrelle, BLE = Brown long-eared,

Roosting Bats

4.31 The roof of the derelict building, located adjacent to the site, had collapsed and was considered to have negligible potential for roosting bats. The trees along the boundary edges, namely those associated within the woodland, could have potential for roosting bats. Further consideration of roosting bats is required.

Assessment of Foraging Quality

4.32 The habitats within the site and surrounding landscape were evaluated for commuting and foraging bats within the criteria set out **Table 2** above. The habitat within the site was assessed as providing moderate quality foraging habitat for bats. This is due to the presence of a mixture of woodland and hedgerows bordering the site which offer good linear features and connectivity to the wider landscape. Further consideration of foraging bats is required.

Dormouse

4.33 No records for dormouse from within the last 10 years were returned from the TVERC and no records of granted EPSL for dormice were found on the MAGIC website [online].

- 4.34 The hedgerows provided some potential suitable habitat for dormouse but lacked a high proportion of hazel. This was also the case of the woodland adjacent to the site. Further consideration of dormouse is required.

Other mammals

- 4.35 The data search returned numerous records of hedgehog (*Erinaceus europaeus*). Habitats suitable for hedgehogs within the site consisted of the hedgerows, grassland and woodland. Further consideration to hedgehogs is required.

Birds

- 4.36 The data search returned of six species of birds on Annex 1 of the Birds Directive 2009 (as amended). Species were kingfisher (*Alcedo atthis*), golden plover (*Pluvialis apricaria*), red kite (*Milvus milvus*), little egret (*Egretta garzetta*), common tern (*Sterna hirundo*) and peregrine (*Falco peregrinus*).
- 4.37 The data search returned 18 species of birds listed on Schedule 1 of the Wildlife and Countryside Act (1981, as amended) and/or Section 41 of the Natural Environment and Rural Communities Act (2006). Species include: bull finch (*Pyrrhula pyrrhula*), fieldfare (*Turdus pilaris*), grasshopper warbler (*Locustella naevia*), herring gull (*Larus argentatus*), hobby (*Falco subbuteo*), house sparrow (*Passer domesticus*), lapwing (*Vanellus vanellus*), lesser redpoll (*Acanthis cabaret*), lesser spotted woodpecker (*Dendrocopos minor*), skylark (*Alauda arvensis*), redwing (*Turdus iliacus*), reed bunting (*Emberiza schoeniclus*), yellowhammer (*Emberiza citrinella*), song thrush (*Turdus philomelos*), yellow wagtail (*Motacilla flava*), turtle dove (*Streptopelia turtur*), starling (*Sturnus vulgaris*) and spotted flycatcher (*Muscicapa striata*).
- 4.38 Nesting habitat is limited to the hedgerows, scrub and woodland. The site may provide suitable habitat for wintering birds as areas of the fields are subject to flooding with ground water run-off. Further consideration of nesting and wintering birds is required.

Amphibians

- 4.39 The data search returned records of common frog (*Rana temporaria*) and common toad (*Bufo bufo*). Two records of European Protected Species Licensing (EPSL) for great crested newts (GCN) were returned from within 4 km search radius on Magic see **Table 7**.

Table 7: Granted EPSL Records Present Within 4 km Search Radius.

Date of Granted Application	Species	Licensable Activity	Approximate Distance from Site
2011	Great crested newt	Destruction of a resting place.	3 km south-east
2015	Great crested newt	Destruction of a resting place.	3.2km south

- 4.40 No aquatic habitat is present within the site, and the majority of the site (arable fields) is unsuitable for GCN. The boundary hedgerows, woodland and the scrub and grassland habitats do provide some suitable terrestrial habitat for GCN.
- 4.41 Two waterbodies appear to be present on OS maps, but no access was possible to either of the waterbodies. A waterbody is thought to be present 340 m north-west of the western land parcel at its most northern point. Another waterbody is likely to be present 370 m to the north-east, associated with Mousefield Farm.

4.42 Further consideration of great crested newts is required.

Reptiles

4.43 The data search returned 26 records of slow worm (*Anguis fragilis*) within the 2 km search radius for the last ten years.

4.44 The majority of the site, namely the arable fields, was not deemed suitable for common reptile species. The field margin, scrub, small areas of grassland and tall ruderal were deemed suitable for common reptile species. Further consideration in relationship to common reptile species is required.

4.45 No suitable habitat for rarer reptile species was present within the site.

Invertebrates

4.46 The data search returned numerous notable invertebrate records. Three records of species listed on Schedule 5 of the Wildlife and Countryside Act (1981, as amended) were returned which were for stage beetle (*Lucanus cervus*), as well as numerous Section 41 of the NERC Act (2006) species.

4.47 No rare or protected invertebrates were recorded during the Phase 1 Habitat Survey. Due to the lack of habitat diversity, the site is unlikely to support invertebrates of conservation concern.

Flora

4.48 The data search returned records of bluebell (*Hyacinthoides non-scripta*). None of these records fall within the site boundary.

4.49 No rare or protected plants were recorded during the Phase 1 Habitat Survey. The habitats on site were considered to be common and widespread, with no indication of rare species being present.

Invasive plant species

4.50 Three records of species listed in Schedule 9 of the Wildlife and Countryside Act (1981, as amended) recorded within 2 km of the site were returned from the data search. These included one record of Japanese knotweed (*Fallopia japonica*).

4.51 No species listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) were recorded during the Phase 1 Habitat Survey. Therefore, invasive plant species are considered absent from the site.

Other Species

4.52 No suitable habitat was present and therefore these species are considered absent.

- Otter
- Water vole; and
- White clawed crayfish

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 This PEA Report assesses the value of, and predicts potential impacts on:

- Designated sites;
- Habitats and species of 'Principal Importance' (NERC Act 2006);
- Habitats and species listed on regional or local Biodiversity Action Plans; and
- Habitats and species afforded legal protection.

5.2 Where impacts cannot be avoided by inherent mitigation alone, additional mitigation or enhancement measures are specified which would as a minimum enable the proposed development to meet legislative and/or planning policy requirements.

5.3 The assessment that is set out below considers potential impacts that could arise from the proposed development although the final scheme is still to be finalised.

Designated Sites

5.4 As identified in **Section 4** there are 11 statutory designated sites within the potential zone of influence of the site. The closest of these being River Lambourn SSSI, which is located 550 m south of the site. The town of Newbury is between the site and the River which is deemed a potential barrier for impacts. It is considered that there is no functional link between the site and this SSSI and therefore no perceived impacts on this site, however this will be confirmed via Drainage studies with any future application. No impacts are anticipated on any of the other statutory designated sites due to the intervening distance it is very unlikely that pathways for impacts that would arise as a result of the proposed development.

5.5 The site lies within the SSSI Impact Risk Zone of River Lambourn SSSI. Developments of a certain size and nature that fall within SSSI Impact Risk Zones, require the LPA to consult with Natural England (NE) to determine whether the proposed development is likely to impact upon the SSSI. In this instance, the proposed development is for 100 residential units and requires the LPA to consult with NE.

5.6 No functional links are likely for any other statutory sites that have been identified, due to intervening distance.

5.7 There are 16 non-statutory designated sites within the potential zone of influence of the site. The nearest is Messenger's Corpse LWS which lies 130 m from the site's eastern boundary. Due to the intervening distance no direct impacts are anticipated. There is potential for indirect impacts in terms of increased recreational pressures from new residential, however public open space offering as part of the proposed development would be designed to alleviate this.

Habitats

5.8 There are no Habitats of Principal Importance within the site. The site contains common low ecological value habitats. The higher quality habitats are those surrounding the site, namely the broadleaved woodland and hedgerows.

5.9 It is recommended that the hedgerows and woodland are protected from development impacts as there is potential for accidental damage to tree roots during construction activities. To avoid such impacts, Root Protection Areas (RPAs) will be identified and

suitable protective fencing (such as Heras fencing to BS5837:2012) installed around the site's boundaries.

Protected and/or Notable Species.

- 5.10 Certain species receive legal protection in the United Kingdom and are commonly known as 'protected species'. In reality, the level of protection for different species varies considerably, from protection solely against 'killing and injury' to full protection of the species and their places of refuge. Where pertinent, details of legal protection afforded to species/species-groups are provided below, further details on the legislation can be found in **Appendix B**.

Badger

- 5.11 Under the Protection of Badgers Act 1992, it is illegal to kill, injure or take a badger or to interfere with their setts. Work that may disturb badgers or their setts constitutes an offence without issue of a licence from Natural England.
- 5.12 Badgers could be active within the local area, and therefore could be impacted by construction activities, it is therefore recommended that during site construction, no excavations should be left open overnight. Where this cannot be avoided, measures to provide a means of escape for any animals that may fall in (such as a wide plank of rough sawn wood) should be provided. Above measure to be included in the CEMP.
- 5.13 Badger are a highly mobile species and can quickly excavate new setts, it is therefore recommended that a pre-construction check 4 month and 48 hours prior to work commencing is undertaken.
- 5.14 Refer to the confidential Badger Technical Note (The Landmark Practice Ltd, Jan 2021).

Bats

- 5.15 All species of British bat receive full protection as European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended). This affords bats and their roosts strict protection under the Regulations. Additional protection for bats is also afforded under the Wildlife and Countryside Act 1981 (as amended) and a subset of the British bat assemblage are listed as 'Species of Principal Importance' within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 5.16 The site provides suitable foraging habitat for bats and is considered to provide moderate foraging potential. Following best practice guidance (Collins J, 2016) to inform any planning application at this site, one survey is required per month between April to October (one of which should be a dusk and dawn). In addition, automated detectors should be deployed at two locations for five consecutive nights each month between April and October.
- 5.17 There are trees present within the hedgerows and woodland edge around the site, which may offer potential for roosting bats. Once the final layout is decided, any trees to be removed, or that are within close proximity to construction works, should be assessed from the ground level for their roosting potential. Depending on the outcome of ground inspections, further (emergence) surveys could be required.

Dormice

- 5.18 Dormice are a European Protected Species (EPS) and are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

- 5.19 Currently it is not known whether any of the hedgerows will need to be removed as part of the proposed development. Should substantial amounts of hedgerow be required to be removed, then nest tube surveys will be required (April to November inclusive) to confirm absence or presence of dormice at the site. If only a small amount of hedgerow needs to be removed (<5m) a full suite of surveys is not considered to be required, but a fingertip search would be undertaken which would also include a visual search for nests and opened nuts prior to commencement of works.

Hedgehog

- 5.20 Hedgehog is a priority species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The site offers good foraging and refuge opportunities for this species.
- 5.21 The proposed development will result in the loss of hedgehog foraging and refuge habitat afforded by the site. Opportunities to mitigate for this loss and enhance habitats on-site for hedgehog include provision of artificial nest boxes within the soft landscaping proposals and/or inclusion of 'hedgehog highways' within gardens.
- 5.22 If clearance works are undertaken over the winter period, care should be taken to ensure any hedgehogs present within the site are not harmed as this species hibernates over winter and is vulnerable to disturbance. Suitable measures to be included in the CEMP.

Birds

- 5.23 All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), with certain species afforded additional protections. In addition, certain conservation concern species are listed as priority species. The proposed development could impact upon nesting and wintering birds through a reduction in the availability of nesting and foraging habitat.
- 5.24 Further surveys for breeding birds will need to be undertaken to determine the extent of use and species assemblage is present, to ensure adequate mitigation is put in place.
- 5.25 Six survey visits, based on the British Trust for Ornithology (BTO) Common Bird Census (CBC) method (Marchant, 1983), should be undertaken between March and June. The CBC method is used rather than the Breeding Bird Survey now employed by the BTO, as it gives a spatial distribution of species across a site, rather than just the number of adult birds in a given area. The surveys should be conducted during the early morning or the late afternoon when the birds are displaying and singing (evening visits are better for thrushes). Details of birds occurring within the site along with their activity would be recorded.
- 5.26 A wintering bird scoping survey is recommended to determine the need for a full suite of wintering bird surveys. This should be undertaken in early October, so there is time to carry out surveys over the full wintering bird survey season (October-March) if required.
- 5.27 Given the potential presence of both breeding and wintering birds, the time frame for construction should be carefully considered following completion of further bird surveys.

Reptiles

- 5.28 All species of common reptile receive at least limited protection from harm under the Wildlife and Countryside Act 1981 (as amended) and are protected against reckless killing and injuring.

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- 5.29 Due to the small area of the site that is suitable for reptiles, it is not deemed proportionate to undertake a reptile absence/presence survey.
- 5.30 Instead, prior to construction, the grassland vegetation should be cleared using a directional, phased approach (during the reptile active period - April to early October inclusive). During the first stage vegetation should be cut to a height of 150 mm using hand tools, with arisings removed. The second stage (at least 24 hours after the first cut, thereby allowing time for reptiles to disperse) should involve vegetation being cut to ground level, and arisings removed. These cuts should be directional, working towards adjacent habitat to the north of the site.
- 5.31 To avoid injuring any reptiles during the construction phase any building materials such as bricks, stone etc. should be stored on pallets to discourage reptiles from using them as shelter, at least 5 m from the retained habitats.
- 5.32 Above measure to be included in the CEMP.

Great crested newts

- 5.33 Great crested newts are protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) and Schedule 2 of the Conservation of Species and Habitats (Amendment) (EU Exit) Regulations 2019. All life stages of great crested newts are protected, including eggs, larvae, juveniles and adults. They are also listed as Species of Principal Importance under Section 41 of the NERC Act (2006).
- 5.34 Great crested newts have been recorded within the local area and two waterbodies within 500 m to the site are present. There is some suitable terrestrial habitat within the site.
- 5.35 It is therefore recommended that all ponds within 500 m to the site are subject to Habitat Suitability Index (HSI) assessment. This seeks to assess the suitability of a waterbody to support GCN. If ponds and waterbodies are deemed suitable for GCN then they will be subject to environmental DNA (eDNA) testing to identify whether GCN are present. The eDNA samples must be undertaken between mid-April and the end of June. If GCN are found to be present than further surveys, mitigation or compensation would be required.

General Good Working Practices

- 5.36 The construction works footprint (including material storage) should be kept to a minimum.
- 5.37 Should any materials require storing on-site during the construction phase, materials should not be stored within 5 m of any boundary trees. They should be stored off ground (i.e., on pallets) to avoid creating sheltering habitat for animals, and waste materials should be placed into skips and removed from site. No piles of waste material should be created that could provide nesting, sheltering or hibernation habitat for protected species.
- 5.38 Pollution prevention methods should be adhered to, similar to the currently withdrawn Pollution Prevention Guidelines (PPG), in particular PPG1 Basic good environmental practices; PPG3 Use and design of oil separators in surface water drainage systems; and PPG6 construction and demolition sites.
- 5.39 In addition, noise, light and vibrations should be kept to a minimum.
- 5.40 Above measures to be included in the CEMP.

Summary of Recommended Mitigation/Compensation Measures

- Preparation of a Construction Environmental Management Plan (CEMP) (to include specifications for fencing to protect the hedgerows within the site and woodland adjacent to the site; precautionary working methods to protect badger, hedgehogs and reptiles and sensitively timed works to protect nesting birds);
- The soft landscaping scheme should include native species of local provenance that are nut and seed bearing;
- Permeability of the site for wildlife during operation (gaps in fencing);
- General good working practice should be adhered to.

Summary of Further Survey Work Required:

- Pre-commencement badger survey;
- Ground level tree assessments for bats;
- Bat activity surveys;
- Breeding bird survey;
- Wintering bird scoping survey;
- Great crested newt eDNA survey.

6.0 ECOLOGICAL ENHANCEMENTS

- 6.1 Creation of replacement wildlife corridors and new areas of biological value ('wilder areas') within areas of green open space would provide compensatory habitat and offer the potential to deliver ecological gain. Retained and created habitats should be subject to a regime of management, designed to meet the principles of Green Infrastructure and biodiversity gain, to further realise their ecological potential and accord with planning policy.
- 6.2 Other opportunities exist to promote enhancement of biodiversity within the site, including habitat creation within new Green and Blue Infrastructure (SuDS) provision. It is recommended that a suite of ecological enhancements are installed within the final layout of the proposed development and production of Ecological Enhancement Management Plan (EEMP).
- 6.3 The site has potential to deliver biodiversity net gain. It is recognised that the proposed development will result in a net loss of arable/improved grassland habitat. An initial calculation Using the Defra Biodiversity Metric 2.0 shows that the loss of 1 ha of arable land within the interior of the site equates to 2 units.
- 6.4 This loss could be mitigated for with a 10 % net gain by provision of 0.4 ha of moderate quality neutral grassland with wildflowers. Other options for net gain provision will be available and we propose to refine this subject to discussions with the design team, emerging site layout and other design requirements.
- 6.5 It is recommended that a detailed Biodiversity Net Gain assessment (using the most up-to-date available Defra metric) is undertaken to inform the emerging site design.

7.0 CONCLUSION

- 7.1 A Phase 1 habitat survey was conducted of the site in December 2020 to map the habitats present, highlight potential for protected species to occur and inform the proposed development. The site predominantly supports arable farmland, with a low diversity of common and widespread plant species, which is currently utilised for the cultivation of crops. Areas of greater diversity and biodiversity value within the site are found associated with the boundary features, although no notable plant species were identified.
- 7.2 Based on the variety of habitats within the site, there is the potential for a range of legally protected and notable species to occur. However, due to the dominant habitat types (arable) providing a paucity of floristic diversity and habitat structure, there are limited opportunities for foraging and sheltering. Protected species interest is therefore likely to be primarily restricted to boundary habitats and adjacent higher quality habitats, which may limit the size of the populations present.
- 7.3 The results of the survey and this assessment demonstrate that the habitat types present, and their size and quality, and the potential presence of legally protected or notable species, is unlikely to preclude or significantly limit the capacity of the site to deliver future housing development. Consideration should be given, however, to the retention of higher value habitat features, such as hedgerows and mature and semi-mature trees, wherever possible due to their intrinsic ecological value and their potential to support legally protected or notable species.
- 7.4 Retained and created habitats should be subject to a regime of management, designed to meet the principles of Green Infrastructure and biodiversity gain, to further realise their ecological potential and accord with planning policy.
- 7.5 Opportunities to mitigate for habitat loss and promote biodiversity within the site include habitat creation within new Green/Blue (SuDS) Infrastructure provision, for example: landscaping with native plant and tree species, installation of integrated bat roosting and bird nesting features on new buildings, adoption of a sensitive lighting strategy and creation of purpose-built hibernacula for reptile species.
- 7.6 Enhancement of the biodiversity value of the proposed development would demonstrate a positive contribution to the aims and objectives of:
- NPPF/NPPG – by incorporation of biodiversity in and around developments and safeguarding of aged or veteran trees; and
 - Local planning policy – through protecting, enhancing, developing and integrating Green Infrastructure and ecological features.
- 7.7 Subject to informed scheme design, including retention of features of greatest ecological interest, it is likely that future development of the site can be achieved without significant negative ecological impact. The potential presence of any European Protected Species or notable species is highly unlikely to preclude or significantly limit the capacity of the site to deliver housing.
- 7.8 Further Phase II ecological surveys are recommended to comprehensively inform detailed scheme design. A robust Ecological Impact Assessment (EclA) will be required to support a future planning application for the site.

8.0 REFERENCES

CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, Version 1.1 Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019). Advice note. On the lifespan of ecological reports and surveys. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

DCLG (2012). National Planning Policy Framework. Department for Communities and Local Government, London.

Eaton, M.A., et al., (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds*, 108, 708-746.

English Nature (2001) Great Crested Newt Mitigation Guidelines. English Nature, Peterborough

Harris, S., Cresswell, P., and Jefferies, D. (1989). *Surveying Badgers*.

Harris, S., and Yalden, D.W., eds. (2008). *Mammals of the British Isles: Handbook*, 4th Ed. Southampton: Mammal Society.

HMSO (1981). *The Wildlife and Countryside Act 1981 (as amended)*.

HMSO (2006). *The Natural Environment and Rural Communities Act 2006*.

HMSO (2017) *The Conservation of Habitats and Species Regulations 2017 (as amended)*.

Institute of Environmental Assessment (IEA) (1995). *Guidelines for Baseline Ecological Assessment*. London: E & F N Spon.












Joint Nature Conservation Committee (JNCC) (2010). *Handbook for Phase 1 habitat survey – a technique for environmental audit*. Peterborough: Joint Nature Conservation Committee.

Natural England (2016). MAGIC, <http://magic.defra.gov.uk/MagicMap.aspx>, (accessed January 2021)

Stace, C.A. (2010). *New Flora of the British Isles 3rd Edition*. Cambridge: Cambridge University Press.

APPENDIX A: PROPOSED DEVELOPMENT

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-  Site Boundary (16.74ha)
-  Medium Density - 35dph
6.15ha - up to 215 dwellings
-  Low Density - 20dph
0.68ha - up to 14 dwellings
- Total NDA - 6.83ha
Up to 229 dwellings
-  Public Open Space
-  Sustainable Drainage Corridor
-  New Woodland Planting
-  Proposed Vehicular Access
-  Proposed Pedestrian Access
-  1m Contours
-  Public Rights of Way
-  Oil Pipe with 3m Easement



APPENDIX B: LEGAL AND PLANNING CONTEXT

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Protected Sites (European)	
Special Areas of Conservation (SACs)	SACs are designated under The Conservation of Habitats and Species Regulations 2017 (as amended). Both possible SACs (pSACs) and cSACs are treated by the planning system as if fully designated
SPA	SPAs are classified in accordance with the European Community Directive on the Conservation of Wild Birds (79/409/EEC) (the 'Birds Directive', EEC, 1979) and implemented in England through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).
Ramsar Sites	The Ramsar Convention (UNESCO, 1987) requires signatory states to protect wetlands that are of international importance, particularly as waterfowl habitats.
Protected Sites (National)	
Local Nature Reserves	Local Nature Reserves are designated under Section 21 of The National Parks and Access to the Countryside Act 1949 (HMSO, 1949) by principal local authorities. The declaring local authority must have a legal interest in the land concerned. Local Nature reserves are designated for people and wildlife. They are places with wildlife or geological features of special interest locally and that give people special opportunities to study and learn about them or simply enjoy them and have contact with nature.
National Nature Reserves	National Nature Reserves are designated under Section 21 of the National Parks and Access to the Countryside Act 1949 (HMSO, 1949) by the statutory authority. They are usually owned and managed by the statutory authority. National Nature Reserves are designated for the habitats that they support.
Sites of Special Scientific Interest (SSSIs)	<p>The Wildlife and Countryside Act 1981 (as amended 1991 and varied 1998) (HMSO, 1981, 1991, 1998) requires Natural England, the Government body with authority for nature conservation in England, to designate areas which make a significant contribution to a national network of sites of nature conservation value as SSSIs.</p> <p>The Countryside and Rights of Way Act 2000 (HMSO, 2000) came into force in full on 30 January 2001. The Act is in five parts. Part III relates to Nature Conservation and amends existing legislation (i.e., the Wildlife and Countryside Act 1981) through improved protection and management of SSSIs, improved legal protection for threatened species and the provision of a statutory basis for biodiversity conservation.</p>
Non-Statutory Sites	
Local Wildlife Sites; County Wildlife Sites; Sites of Nature Conservation Interest	The majority of Local Authorities have a system of 'second tier' sites which do not wholly fulfil SSSI designation criteria, but which are, nonetheless, of local or regional value. The policies, encouraged by Government advice, recognise that protection should be extended beyond the statutory sites to include the best examples of wildlife habitats, populations of rare species and geological features remaining in the area and are particularly valuable in supplementing and supporting the national framework for SSSIs.

Protected Species (European)	
Bats	All British bats and their roosts are fully protected under international wildlife law against adverse effects including disturbance. Under the terms of the Bonn Convention, which encompasses the Agreement of the Conservation of Bats in Europe, there is a fundamental obligation to protect from damage or disturbance, sites which are important for the conservation status of bats. Such sites include those bats use for shelter or protection and important foraging areas.
Birds	In Britain all wild birds are granted legal protection under the EC Birds Directive and the Wildlife & Countryside Act 1981 (as amended). This legislation protects the birds, their eggs and nests whilst being built or in use. Under the Bern Convention 1979, Contracting Parties are required to take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II. In the UK this is implemented through various national wildlife protection policies.
Dormouse	The dormouse is protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Taken together, the Regulations and Act make it illegal to intentionally or deliberately kill, injure or capture dormice; deliberately disturb dormice and damage or destroy dormouse breeding sites or resting places.
Great Crested Newt	The great crested newt is fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). The legislation protects the newts and their places of shelter or protection, which may extend 500m from the breeding pond.
Invertebrates	Under the Conservation of Habitats and Species Regulations 2017 (as amended), invertebrate species listed on Schedule 2 it is an offence to deliberately capture or kill, disturb, take or destroy eggs of such a species or to damage or destroy the breeding site or resting place of such an animal.
Plants	Under the Bern Convention 1979, Contracting Parties are required to take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild flora species specified in Appendix 1. In the UK this is implemented through various national wildlife protection policies.
Protected Species (National)	
Badger	Badgers are protected under the Protection of Badgers Act 1992. This Act makes it illegal to wilfully kill, injure or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a badger sett or disturb a badger when it is occupying a sett.
Wild Mammals	Under the Wild Mammals (Protection) Act 1996 it is an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Reptiles	The slow-worm (<i>Anguis fragilis</i>), grass snake (<i>Natrix natrix</i>), adder (<i>Vipera berus</i>) and common lizard (<i>Lacerta vivipara</i>) are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) in respect of section 9(1) and 9(5) only. Under section

	9(1) it is an offence to knowingly kill or injure a reptile. Section 9(5) refers to sale and trade.
Birds	<p>In Britain all wild birds are granted legal protection under the Wildlife & Countryside Act 1981 (as amended) and the EC Birds Directive. This legislation protects the birds, their eggs and nests whilst being built or in use.</p> <p>Legal protection makes it an offence to intentionally kill, injure, take or have in possession any wild bird or egg. It is also an offence to intentionally damage or destroy the nest of any wild bird whilst it is being built or in use. Birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are subject to special penalties and are also protected from disturbance while nesting including the disturbance of dependent young.</p>
Water vole	The water vole (<i>Arvicola amphibius</i>) receives protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under the Act it is an offence to intentionally kill, injure or take water voles and intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or obstruct access to any structure or place used by water voles for shelter or protection or to disturb water voles while they are using such a place.
Invertebrates	Statutory protection in Great Britain is provided by the Wildlife and Countryside Act 1981. The invertebrates which have special protection are listed on Schedule 5 under which it is an offence to intentionally kill, injure or take these invertebrates and intentionally or recklessly damage or destroy, or obstruct access to, any structure or place used for shelter or protection or disturb any such animal while occupying such a structure or place.
Plants	<p>Statutory protection in Great Britain is provided by the Wildlife and Countryside Act 1981. The plants and fungi which have special protection are listed on Schedule 8 under which it is an offence to intentionally pick, uproot or destroy any plant on Schedule 8.</p> <p>Five plant species are listed on the Weeds Act 1959 as injurious: common ragwort (<i>Senecio jacobaea</i>), broad-leaved dock (<i>Rumex obtusifolius</i>), curled dock (<i>Rumex crispus</i>), creeping thistle (<i>Cirsium arvense</i>) and spear thistle (<i>Cirsium vulgare</i>). The Act requires landowners to eliminate scheduled weeds to prevent their seeds contaminating neighbouring land. The Ragwort Control Act 2003 amends the Weed Act with respect to common ragwort.</p> <p>Thirty-eight species plus all species of <i>Elodea</i> (of which there are currently three species known to have been introduced) are listed on Schedule 9 of the Wildlife and Countryside Act 1981 under which it is an offence to plant or otherwise cause to grow in the wild the scheduled species. Two are marine, thirteen aquatic and the remainder terrestrial.</p>
Biodiversity Conservation	
Natural Environment and Rural Communities Act	Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006 requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The Government has a duty to take reasonably practicable steps to further the conservation of the species and habitats that are included in lists published under Section 41.

	<p>Biodiversity 2020: A strategy for England's wildlife and ecosystem services sets out the means by which the Government will comply with its duty under Section 41 of the NERC Act to take or promote the taking by others of steps to further the conservation of listed habitats and species, including through the continued implementation of Action Plans.</p>
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Local Planning Policy

West Berkshire Council – Core Strategy adopted July 2012.

Policy CS17 – Biodiversity and Geodiversity

Biodiversity and geodiversity assets across West Berkshire will be conserved and enhanced. Habitats designated or proposed for designation as important for biodiversity or geodiversity at an international or national level or which support protected, rare or endangered species, will be protected and enhanced. The degree of protection given will be appropriate to the status of the site or species in terms of its international or national importance.

Development which may harm, either directly or indirectly,

- locally designated sites (Local Wildlife Sites and Local Geological Sites), or*
- habitats or species of principal importance for the purpose of conserving biodiversity, or*
- the integrity or continuity of landscape features of major importance for wild flora and fauna*

Will only be permitted if there are no reasonable alternatives and there are clear demonstrable social or economic benefits of regional or national importance that outweigh the need to safeguard the site or species and that adequate compensation and mitigation measures are provided when damage to biodiversity/geodiversity interests are unavoidable.

In order to conserve and enhance the environmental capacity of the District, all new development should maximise opportunities to achieve net gains in biodiversity and geodiversity in accordance with the Berkshire Biodiversity Action Plan and the Berkshire Local Geodiversity Action Plan. Opportunities will be taken to create links between natural habitats and, in particular, strategic opportunities for biodiversity improvement will be actively pursued within the Biodiversity. Opportunity Areas identified on the Proposals Map in accordance with the Berkshire Biodiversity.

Policy CS18 – Green Infrastructure

The District's green infrastructure will be protected and enhanced. The Council will work with partners, including Parish Councils and the community to address the District's green infrastructure

needs and deficiencies as set out in the forthcoming Green Infrastructure SPD. New developments will make provision for high quality and multifunctional open spaces of an appropriate size and will also provide links to the existing green infrastructure network. Specific standards for provision within new developments will be identified in the Site Allocations and

Delivery DPD and through the master planning for strategic sites. Developments resulting in the loss of green infrastructure or harm to its use or enjoyment by the public will not be permitted. Where exceptionally it is agreed that an area of green infrastructure can be lost a new one of equal or greater size and standard will be required to be provided in an accessible location close by.

West Berkshire Local Plan Review to 2037

“WBC has begun a review of its Local Plan to cover the period up to 2037. The Local Plan Review (LPR) has already been through two rounds of Regulation 18 consultations and is currently out for consultation (consultation period runs from 11/12/2020 to 5/02/2021). Within the emerging LPR, Policy SP 11 ‘Biodiversity and geodiversity’ is relevant to the proposed development:

Development proposals will conserve and enhance biodiversity and/or geodiversity and will deliver a net gain.

Development will be permitted where it:

- protects biodiversity and/or geodiversity value and implements appropriate conservation management. The degree of protection will be proportionate to the status of the site in terms of its international, national and/or local importance;*
- minimises fragmentation and maximises opportunities for restoration, enhancements and connection of natural habitats (including links to habitats outside the district);*
- incorporates beneficial biodiversity and/or geodiversity conservation features and enhances existing features, including those that will help wildlife to adapt to climate change where appropriate;*
- delivers a net gain for biodiversity and/or geodiversity in the district. Development proposals across sites of all sizes will achieve a minimum 10% net gain for biodiversity, either within the site boundary or as part of on-site compensation, or where agreed, off-site compensation towards more strategic nature recovery;*
- provides or retains appropriate buffer zones between development proposals and designated sites;*
- provides coherent ecological permeability that is integrated and linked to the wider green infrastructure and any nature recovery network identified as relevant to the location;*
- seeks to eradicate or control any invasive non-native species present on site;*
- is compatible with any Biodiversity Action Plan, Local Nature Recovery Strategy or other strategic conservation management plans for species or habitats that have been formally adopted by the Council.*

Development that would have a direct or indirect adverse effect on designated sites, protected or priority species or habitats that are considered to have geological and biodiversity value, will be refused unless it can be demonstrated that the benefits of the development clearly outweigh the impacts on the features of the site and the wider network of habitats. Development resulting in the loss or deterioration of irreplaceable habitats will be refused unless it accords with the exceptional reasons identified within the National Planning Policy Framework. If benefits clearly outweigh the impacts or

exceptional reasons are justified, a suitable compensation strategy including long term management and maintenance, will need to be secured."

National Planning Policy Framework (NPPF)

The NPPF (MHCLG, 2019) emphasises that planning decisions should contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity value (in a manner commensurate with their statutory status or identified quality in the development plan) and "*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*" (paragraph 170 refers).

The NPPF advises that when determining planning applications, local planning authorities should aim to protect and enhance biodiversity by applying the following principles (paragraph 175 refers):

"a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

National Planning Policy Guidance (NPPG)

NPPG (DCLG, 2014) will be updated in due course, where necessary, to reflect the NPPF. Current NPPG advises that information on biodiversity impacts and opportunities should inform all stages of development, from site selection and design, to include any pre-application consultation as well as the application itself. The guidance notes that:




"An ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate. Pre-application discussion can help scope whether this is the case and, if so, the survey work required" (Paragraph 016).



The guidance also notes that:

"Local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity" (Paragraph 016).

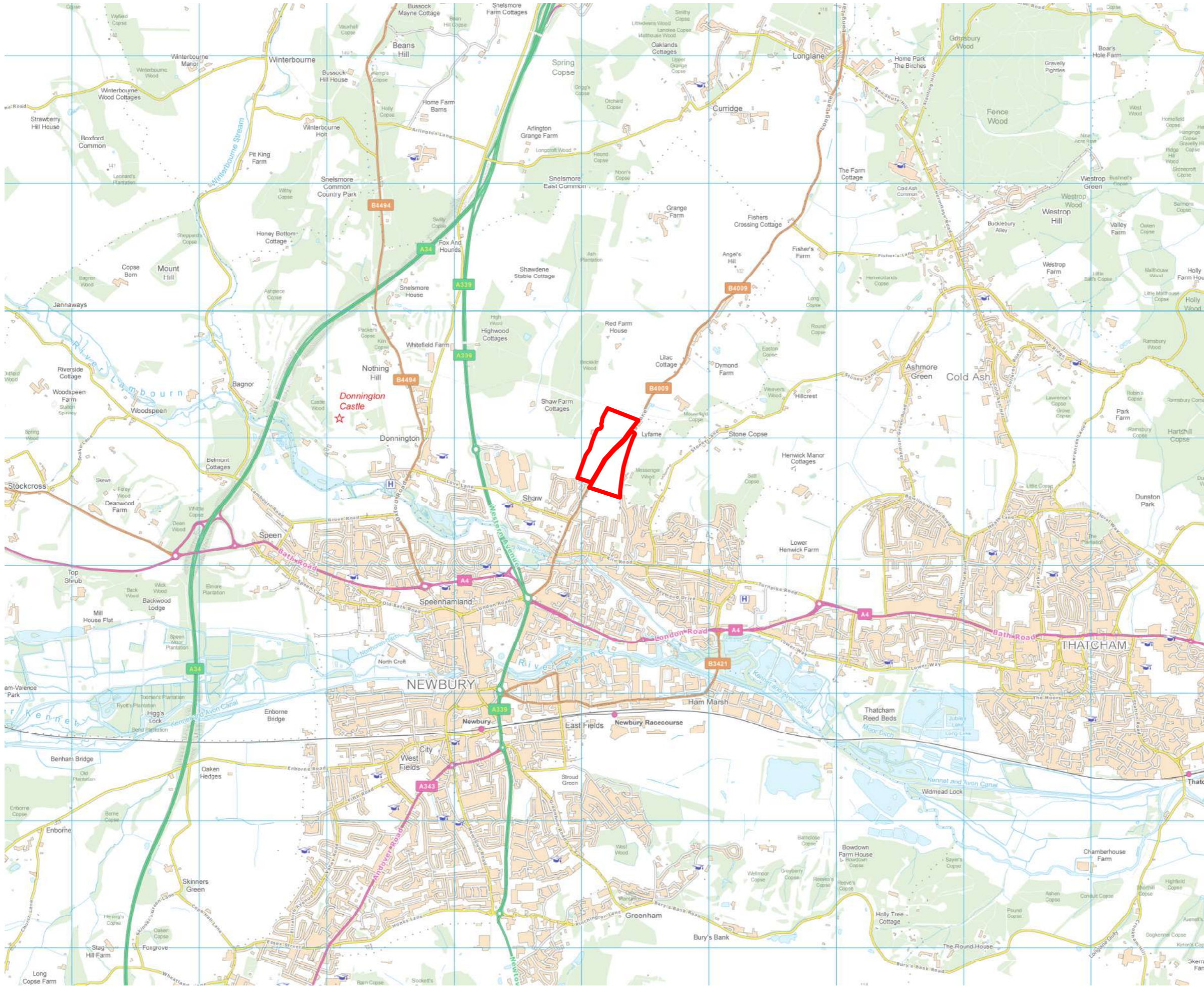
APPENDIX C: PHOTOGRAPHS

APPENDIX C: PHOTOGRAPHS AND TARGET NOTES

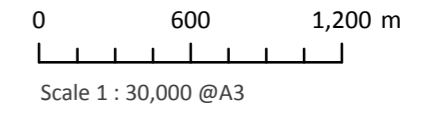
No.	Photograph	Description
1		Eastern land parcel woodland edge
2		Western land parcel
3		Western land parcel - hedgerow

4		Bridle path outside of site on western edge of western land parcel
5		Eastern land parcel looking over Long Road into western land parcel.

FIGURES



Legend:

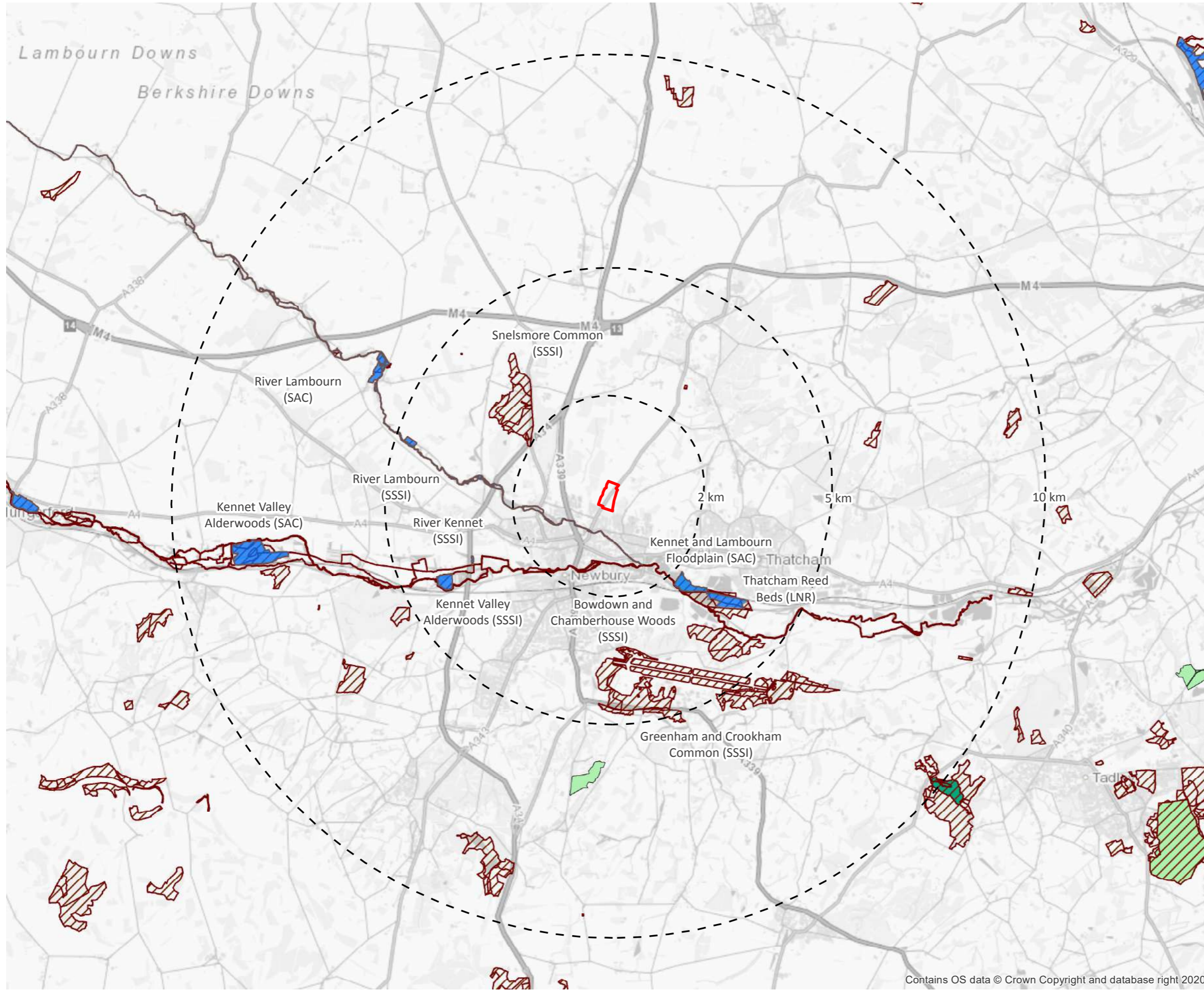


LONG LANE, NEWBURY






FIGURE 1
Site location

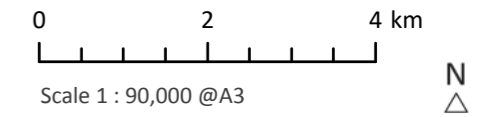
THE Landmark
PRACTICE

Hope Chapel House Hope Chapel Hill Hotwells Bristol BS8 4ND
T: +44 (0)117 923 0455 E: enquiries@thelandmarkpractice.com
www.thelandmarkpractice.com



Legend:

-  Site boundary
-  2km, 5km and 10km radial extents
-  Special Area of Conservation (SAC)
-  Site of Special Scientific Interest (SSSI)
-  Local Nature Reserve (LNR)



LONG LANE, NEWBURY

FIGURE 2
Statutory Designated Wildlife Sites















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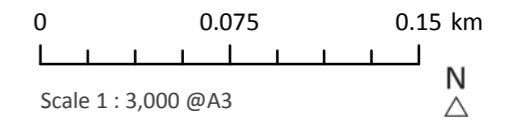
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T: +44 (0)117 923 0455 E: enquiries@thelandmarkpractice.com
www.thelandmarkpractice.com

Drawn: EL Checked: SA Date: 12 Jan 21



Legend:

-  Site boundary
-  Scattered/line of broadleaved trees
-  Poor semi-improved grassland
-  Semi-natural broadleaved woodland
-  Dense continuous scrub
-  Neutral semi-improved grassland
-  Tall ruderal
-  Arable
-  Bare ground
-  Building
-  Scattered scrub
-  Fence
-  Species-poor hedge with trees
-  Native species-poor hedge



LONG LANE, NEWBURY

FIGURE 3
Phase 1 Habitat Survey

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Hope Chapel House Hope Chapel Hill Hotwells Bristol BS8 4ND
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Drawn: EL Checked: SA Date: 12 Jan 21