agb ENVIRONMENTAL

Preliminary Ecological Appraisal

8 Stanmore Way, Loughton, IG10 2SA

Client Name: T Brough

Project Number: P3504.1.2

Date: 10 February 2021

ENABLING DEVELOPMENT

Client	T Brough
Agent	Clear Architects
Site	8 Stanmore Way, Loughton, IG10 2SA
Report reference	P3504.1.2
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Date	10 February 2021
Version	Final

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1 Summary

Site	8 Stanmore Way, Loughton, IG10 2SA
Central OS Grid Reference	TQ 43147 97926
Report Commissioned by	Clear Architects on behalf of T Brough
Date of Survey	13th February 2020

Considerations	Description	Comments & Recommendations
Surveys Undertaken	Desk based study and walkover survey.	Both components informed a Preliminary Ecological Appraisal (PEA). Further surveys have been recommended (see below).
Ecological Features	The site comprised buildings, hardstanding, amenity grassland, ruderal vegetation, shrubs, hedgerows, scattered trees and an ornamental water feature.	The site was considered to be of low importance due to the artificial nature of its dominant habitats and poor plant diversity.
Further Surveys	Further bat surveys of the Bungalow	One bat emergence / re-entry survey between May and August (September sub-optimal) is recommended.
Avoidance and General Mitigation	Bats	Mitigation will be outlined on completion of the further bat surveys.
	Trees and hedgerows	Protect these boundary features and replant any trees lost to development with native species of local provenance.
	Nesting birds	Clear any woody vegetation outside the nesting bird season, or after a nesting bird survey by an ecologist if clearance is scheduled between March and August (inclusive).
	Hedgehog	Provide hedgehog links within any new fencing.
	Schedule 9 non-native invasive species Cotoneaster sp.	Cotoneaster should be removed from site to an approved disposal facility, to avoid its spread.
	Schedule 9 non-native invasive species Rhododendron	Rhododendron should be removed from site to an approved disposal facility, to avoid its spread.
	Site measures	Cover trenches or provide planked escape routes to allow any animals that fall in to escape. Store materials off the ground and do not leave temporary standing water.
Enhancements	To increase the ecological value of the site.	Minimise artificial lighting, install wildlife boxes for birds and bats, and incorporate native species within the planting schedules.

Contents

2 Introduction

2.1 Background

agb Environmental was commissioned by Clear Architects on behalf of T Brough to undertake a Preliminary Ecological Appraisal (PEA) at 8 Stanmore Way, Loughton, IG10 2SA, herein referred to as 'the site'.

This report has been produced to inform the client and the design team of the key ecological constraints and opportunities associated with the project, possible mitigation measures and to detail any further survey requirements considered necessary to inform an Ecological Impact Assessment (EcIA).

2.2 Site Location and Description

The site was located to the north of the town of Loughton at central Ordnance Survey Grid Reference: TQ 43147 97926. The site totalled approximately 0.1ha, comprising an unoccupied house (bungalow), garage and surrounding garden. Habitats present on site included buildings, hardstanding, amenity grassland, ruderal vegetation, shrubs, hedgerows, scattered trees and an ornamental water feature (see **Appendix 1**).

The site was situated within a suburban location and surrounded by housing on all sides. The wider area comprised suburban settlement, with pockets of deciduous woodland. Epping Forest was located approximately140m to the west.

2.3 Development Proposal

The proposal for the site is to construct two chalet bungalows with associated car parking and landscaping. The existing buildings within the site will be demolished. Ecology input will be provided during the site refinement stage in order to maximise opportunities for wildlife within the development.

2.4 Scope of Survey

This report presents information obtained during the following:

- A desk-based assessment undertaken during February 2020; and
- A walkover survey undertaken on 13th February 2020.

2.5 Objective

The objectives of this PEA are to identify and report the following:

- Potential ecological constraints associated with the site and the project;
- Mitigation measures that are likely to be required in line with the mitigation hierarchy;
- Further ecological survey requirements considered necessary to inform an EcIA;
- Measures considered necessary to provide compliance with planning policy, and UK wildlife legislation (**Appendix 2**); and
- Opportunities for the project to deliver ecological enhancement.

3 Methodology

3.1 Surveyor

The site was surveyed by agb Environmental Ecologist Owen Jones BSc (Hons), who is licensed to survey for bats 2017-31719-CLS-CLS (Level 2) and great crested newts 2016-20091-CLS-CLS (Level 1).

3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database (Natural England, 2020) was accessed on the 25th February 2020 for information on:

- Natura 2000 sites such as designated and proposed Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within 5km of the study area;
- Statutory sites designated for nature conservation such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNRs) within a 2km radius of the study area;
- Natural England's Impact Risk Zones (IRZs) for SSSI, SAC, SPA and Ramsar sites within which the study area was located; and
- Any European Protected Species Mitigation (EPSM) Licences granted by Natural England within a 2km radius of the study area.

The Essex Field Club (EFC) was also consulted on the 5th February 2020 for the following information for a 1km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS);
- Existing records of legally protected species, such as great crested newts, reptiles, birds and bats; and
- Existing records of notable species, such as those listed as Species of Principal Importance (SPIE) in England (HMSO, 2006).

3.3 Habitat Survey

The survey involved a site visit on the 13th February 2020 to record and map habitat types and ecological features within the site. The survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017), and the general principles and methods outlined in the *Handbook for Phase I Habitat Survey* (JNCC, 2010). Features of interest were identified as target notes on the Phase I Habitat Map (**Appendix 1**).

Hedgerows on site were also evaluated to determine if it was likely that they qualified as 'important' hedgerows with reference to the Hedgerows Regulations (HMSO, 1997).

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by development of the site.

Weather conditions during the survey: 8°C; a light air (Beaufort 1), 50% cloud cover and dry.

3.4 Protected and Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support protected and notable species. This included species listed under the *Conservation of Habitats and Species Regulations 2017*, the *Wildlife and Countryside Act 1981 (as amended) (WCA)*, and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006*, *Countryside and Rights of Way (CRoW) Act 2000*, and the *Protection of Badgers Act 1992.*

The following protected / notable species were considered within the assessment.

3.4.1 Amphibians

The site was assessed for suitability to support amphibians such as the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo.* The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003)and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

Maps and aerial images were searched for the presence of ponds, and other waterbodies, suitable for breeding amphibians within 250m of the site boundary.

3.4.2 Reptiles

The site was assessed for suitability to support reptiles with reference to the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation* (Froglife, 1999).

3.4.3 Nesting Birds

The site was assessed for potential to support nesting birds. Buildings within the site were externally and internally inspected from the ground for signs of nesting birds. Vegetation including trees and shrubs were also assessed for their potential for nesting birds.

3.4.4 Badgers

The site and a 30m zone around the site (where accessible), were surveyed for badger *Meles meles* evidence such as setts, latrines, pathways, footprints, snuffle holes and badger hairs. Any setts recorded were classified according to published criteria (Harris, et al., 1989).

3.4.5 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2016). Details of the criteria used are provided in **Appendix 3**.

The buildings on site were subject to a preliminary roost assessment (PRA). The external inspection comprised of searching for features of value to roosting bats, including crevices or holes within brickwork, around windows, missing, broken or slipped tiles and any lifted flashing or roof tiles. Evidence of bats such as feeding remains, scratch marks, droppings on windowsills or oil staining from bat fur was also searched for. The survey was conducted from the ground around and within the buildings and was aided by binoculars and a high-powered torch.

Buildings on site were assessed for suitability to support roosting bats. Equipment used to investigate the buildings included; binoculars, a high-power torch and a ladder. All buildings

were described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains.

Trees were surveyed for evidence of bats and potential bat roost features (PRFs), and then assigned a level of suitability. PRFs include woodpecker holes, rot holes, hazard beams, cracks and splits, knot holes, cavities, loose bark, and partially detached ivy (Andrews, 2018).

Habitats and features within the site were assessed for suitability to support foraging and commuting bats according to criteria set out in guidance (Collins, 2016).

3.4.6 Other Species

The site was assessed for suitability to support other protected and notable fauna species/ assemblages including birds, invertebrates and mammals.

3.4.7 Invasive Species

The site was searched for invasive plants listed on Schedule 9 of the WCA such as giant hogweed *Heracleum mantegazzianum,* Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, and rhododendron *Rhododendron ponticum*.

3.5 Limitations and Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey.

The 30m zone around the site could not be surveyed for badger, due it being predominantly private houses and gardens. However, the assessment of the likelihood of badger being present on the site is still considered accurate due to the unsuitable habitats present.

The survey date falls outside the optimal season for botanical work. However, the habitat descriptions and evaluations are considered to be accurate due to the common and widespread habitats recorded and the vegetation being clearly visible at the time of survey.

This PEA provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further surveys have been recommended where there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

The ponds within 250m of the site were not visited as they were either within private land or not visible from the road. This is not considered to be a significant constraint as any potential effect on great crested newts could be assessed both on site and by studying aerial images and maps.

This PEA does not constitute a full botanical survey or a Phase 2 pre-construction survey for Japanese knotweed.

On the assumption that the development proposal, site conditions and habitats remain unchanged, the results of this assessment are likely to remain valid for up to 18 months i.e. until August 2022 (BSI, 2013). If works have not yet commenced by this time it may be necessary to update the assessment.

4 Results

The following section presents the results and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development.

4.1 Designated Sites

4.1.1 Statutory Sites

Statutory sites designated for nature conservation within the vicinity of the site are provided in **Tables 4.1** and **4.2**. SACs are of European importance, SSSIs are of national importance and Local Nature Reserves (LNR) are of local importance.

Table 4.1: Designated sites of international importance within 5km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Epping Forest SAC	140m W	1628.9	Representing an Atlantic acidophilous beech forest to the north-east of the UK habitat range. A site which has widespread and frequent records of stag beetle *Lucanus cervus*.

Table 4.2: Designated sites of national importance within 2km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Epping Forest SSSI	140m W	1787.9	One of the few remaining large-scale examples of ancient wood-pasture in lowland Britain. Habitats of high nature conservation value include old grassland plains, ancient semi-natural woodland and scattered wetland.
Home Mead LNR	660m E	1.82	Mosaic of woodland, scrub and acid grassland. Yellow tormentil and blue bugle are present within the wildflower meadow. Areas of scrub form an interface between the open grassland areas and the woodland. Other plants present include bird's-foot trefoil, heather and ragged robin.

The site falls within the Epping Forest SSSI IRZ. For new residential development in this area a Habitats Regulations Assessment is required on the likely significant effects resulting from recreation on Epping Forest SAC and financial contributions are expected to offset recreational impacts. As the proposal is for a replacement dwelling with no net gain in residential units, within an existing residential area no consultation with Natural England and no mitigation is required for this SSSI.

There were no habitats or species within the site that serve as qualifying features of the nearby statutory sites. The application site was not ecologically linked to these sites due to the intervening land being an existing residential area (Natural England, 2020).

Due to the small-scale size, location and nature of application site, the proposed development is highly unlikely to have a significant effect on any European site (either alone or in combination with other plans or projects). Further, it is not directly connected with or necessary

to the management of such sites. No further assessment is recommended for statutory conservation sites.

4.2 Habitats

The habitats below were recorded within the site during the survey. No protected, BAP, SPIE, or locally important floral species or habitats were recorded during the survey. Habitat types are described below and shown on the Phase I Habitat Map (**Appendix 1**).

- Buildings
- Hardstanding
- Amenity grassland
- Ruderal vegetation
- Shrubs
- Hedgerows
- Scattered trees
- Water feature

4.2.1 Buildings

A description of the buildings within the site is provided in relation to their bat roosting suitability in **Section 4.3.6**.

4.2.2 Hardstanding

A block paved, hardstanding driveway was present on the east side of the site, which ran from an access gate in the north east to the garage building in the south east corner (**Photo 4.1**). The hardstanding was of **negligible** importance and no further action is recommended.

Photo 4.1: Hardstanding, facing south.

4.2.3 Amenity Grassland

Amenity grassland was recorded within the site (**Photo 4.2**). Species comprised annual meadow grass *Poa annua*, perennial ryegrass *Lolium perenne*, dandelion *Taraxacum officinale* agg., common daisy *Bellis perennis*, ribwort plantain *Plantago lanceolata,* ragwort *Senecio jacobaea* and clover *Trifolium* sp. The grassland lacked species diversity and structure and was therefore considered to be of **negligible** importance. No further action is recommended.

Photo 4.2: Amenity grassland, facing west.

4.2.4 Ruderal Vegetation

An area of ruderal vegetation was recorded adjacent to the southern boundary of the site (**Photo 4.3**). Ruderal species included Canadian fleabane *Conyza Canadensis*, common nettle, willowherb *Epibolium* sp, creeping thistle *Cirsium arvense*, cleavers *Galium aparine* and ivy *Hedera helix*. Ruderal vegetation is ubiquitous in its range and occurrence and considered to be of negligible importance. No further action is recommended.

Photo 4.3: Ruderal vegetation, facing south.

4.2.5 Shrubs

A number of planted, predominantly non-native shrubs were recorded within the site. Species present included Japanese mahonia *Mahonia japonica,* firethorn *Pyracantha* sp., small-leaved cotoneaster *Cotoneaster horizontalis* (**TN1** and **TN2**), rose *Rosa* sp. and variegated ivy Hedera sp. (**Photo 4.4**). Cotoneaster is listed under Schedule 9 of the *WCA* and is discussed further in section **5.2**.

Shrubs were of interest within the context of the site but were not considered important at any greater geographic scale. Precautionary measures to protect nesting birds are recommended in **Section 5**.

Photo 4.4: Shrubs at the western boundary of the site.

4.2.6 Hedgerows

Intact native and non-native hedgerows were recorded on the northern and eastern boundaries of the site. The hedgerow assessment was undertaken to determine if they were likely to be classed as 'important' under the Hedgerow Regulations 1997 and they were found to be predominantly comprised of non-native species and lacked associated features.

Further generic action has been recommended in **Section 5**.

4.2.6.1 Hedgerow 1 (H1)

Hedgerow H1 was intact, managed and located on the northern boundary of the site (**Photo 4.5**). H1 was approximately 3m tall and 2.5m wide. Woody species comprised holly *Ilex aquifolium* with a small patch of rhododendron *Rhododendron* sp. (a species listed on Schedule 9 of the WCA) also present (**TN3**).

Photo 4.5: Hedgerow H1 at the northern boundary of the site.

4.2.6.2 Hedgerow 2 (H2)

Hedgerow H2 was overgrown, recently unmanaged and located on the eastern boundary of the site (**Photo 4.6**). H2 was up to approximately 2m tall and 2m wide. Woody species

comprised firethorn and cotoneaster (a species listed on Schedule 9 of the WCA) with a small patch of holly also present.

Photo 4.6: Hedgerow H2 at the eastern boundary of the site.

4.2.6.3 Hedgerow 3 (H3)

Hedgerow H3 was recently unmanaged and located between the house and the western boundary of the site (**Photo 4.7**). H3 was approximately 2m tall and 1.5m wide. Woody species comprised firethorn, holly and yew *Taxus Baccata.*

Photo 4.7: Hedgerow H3, facing south east.

4.2.7 Scattered Trees

A small number of predominantly coniferous trees were present within the site (**Photo 4.8**). Species present included Leyland cypress *Cupressus* × *leylandii* and cabbage palm *Cordyline Australis.*

Scattered trees were of interest within the context of the site but were not considered important at any greater geographic scale.

Precautionary measures for nesting birds and to protect trees that may be affected by construction works are recommended in **Section 5**.

Photo 4.8: Coniferous trees facing west.

4.2.8 Water Feature

An ornamental water feature measuring approximately 1m x 0.5m was present within the western part of the site (**Photo 4.9**). The water feature was very small with concrete sides and plastic lining and was also overgrown. The water feature was not considered to meet Section 41 Priority Habitat criteria.

Due to the artificial nature and small size of the water feature, it was considered to be of **negligible** importance. Further action has been recommended due to the common species of amphibian that they may contain (see **Section 5.1**).

Photo 4.9: Water feature, facing west.

4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below. Older records have been considered where appropriate. None of the records pertain to the site.

4.3.1 Invertebrates

The EFC returned numerous records of Section 41 (NERC Act, 2006) moths and butterflies. Most of these records are likely to originate from Epping Forest SAC and SSSI, which is 140m west of the site.

Habitats that will be significantly impacted on by the proposals (amenity grassland and existing buildings) are unlikely to support such rare or notable species. Limited nectaring opportunities were available for butterflies, and there was no sufficiently decayed deadwood suitable for stag beetle larvae. The site was therefore considered to hold **negligible** potential for rare / notable invertebrates.

No further surveys or mitigation are recommended.

4.3.2 Amphibians

The EFC returned six recent records of great crested newt, the most recent from 2019 and nearest 1.9km from the site. 37 records of common toad were returned, the most recent from 2019 and nearest 0.3km from the site. A small overgrown water feature was located within the site and four additional ponds were located within 250m (see **Figure 4.1** below). The onsite water feature was heavily overgrown and contained only 10cm of water despite recent heavy rain.

The site was located within a large residential area and predominantly comprised habitats that are not generally favoured by great crested newts, for example hardstanding, amenity grassland and buildings. There is an approximately 2.5m high brick wall along the southern boundary of the site which carried on along the rear of the adjacent gardens. This wall was considered to be a significant barrier for the dispersal of amphibians including great crested newts if present within Ponds 1 and 2 (**Photo 4.10**).

Photo 4.10: Brick wall at the southern boundary of the site.

Ponds 3 and 4 were both located approximately 230m north-west of the site and within the optimal terrestrial habitat of Epping Forest. If great crested newts were present within Pond 3 or 4, they are highly likely to stay within the boundary of the forest and not disperse into the sub optimal residential area.

Overall, the site had **negligible** potential to support great crested newts and no further surveys are recommended.

The water feature may support common species of amphibians and therefore mitigation has been recommended in **Section 5**.

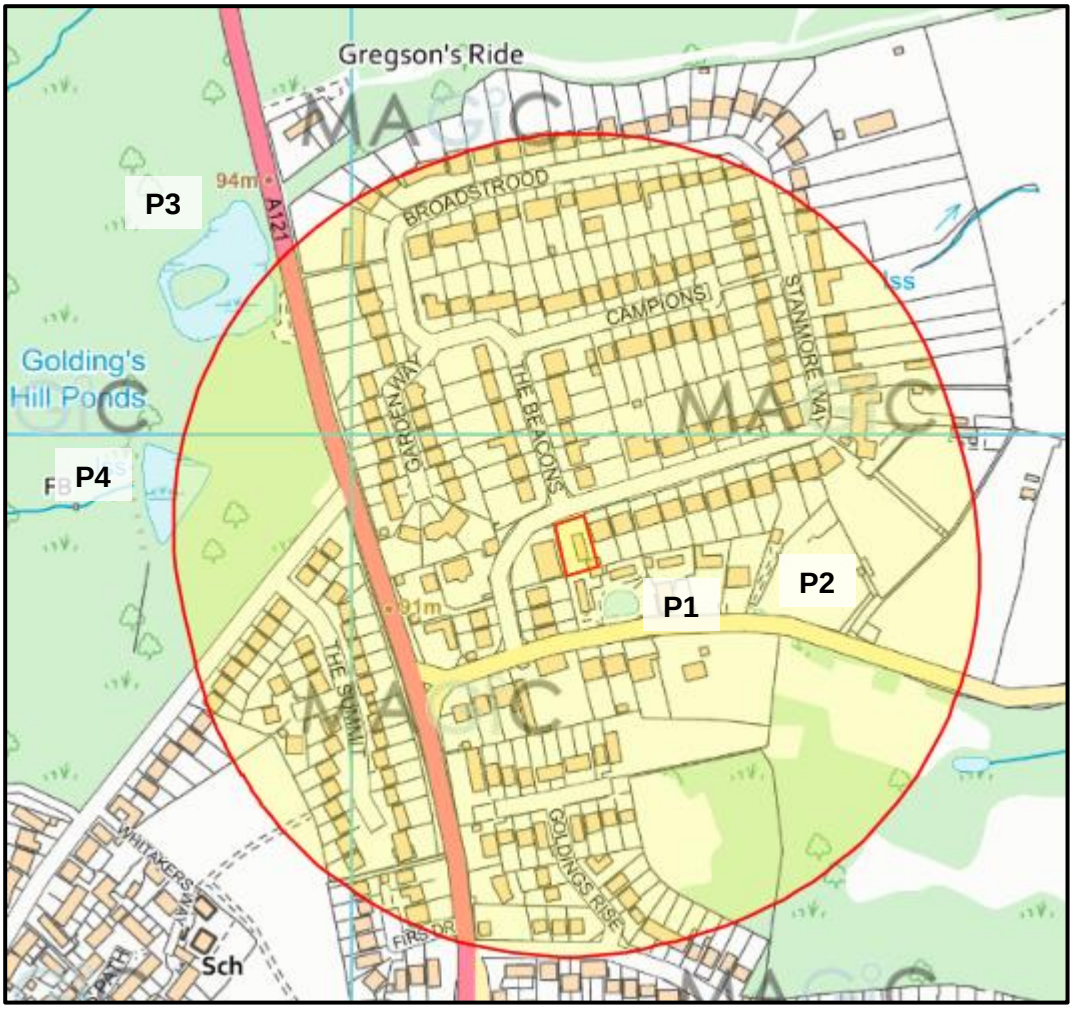

Figure 4.1: Waterbodies (blue circles) within 250m of the site (red line).

4.3.3 Reptiles

The EFC returned 23 records of slow-worm *Anguis fragilis* (most recent 2019 and nearest 1.3km), 72 records of grass snake *Natrix helvetica* (most recent 2019 and nearest 0.8km), 58 records of adder *Vipera berus* (most recent 2019 and nearest 1km), and 118 records of common lizard *Zootoca vivipara*.

The site was small (less than 0.1ha) and located within a predominantly residential area. Further, the dominant habitats within the site: hardstanding, amenity grassland and buildings were considered unsuitable for reptiles. Although, a large number of reptile records were returned, they are highly unlikely to be present within the site. The site was therefore considered to hold **negligible** potential for reptiles. No further surveys or mitigation are recommended.

4.3.4 Birds

The EFC returned over 1500 bird records, some of which are listed as Annex I (Birds Directive), Schedule 1 (*WCA*) and/or of Conservation Concern (RSPB). A full list of species can be found in **Appendix 4**.

Bird interest (nesting/foraging) is likely to be confined to the hedgerows and trees. The site was therefore considered to hold **moderate** potential for widespread species of nesting bird.

The site overall was, however, considered to hold **negligible** potential for significant bird species and assemblages.

Further action for nesting birds is recommended in **Section 5**.

4.3.5 Badgers

The EFC returned four records of badgers, although only one was recent. No badger setts or signs of badger were recorded within the site. The site was within a residential area and had dense hedgerows, walls or fences on all sides which are likely to reduce the likelihood of badgers being present.

The site held **low potential** for badgers due to the small size, location and dominant habitats present. Due to the rural location it is possible that badgers will pass through the site during nocturnal foraging activity.

General precautionary measures to protect nocturnal mammals are recommended in **Section 5**.

4.3.6 Bats

The EFC returned a number of recent bat records comprising seven species. The records are summarised in **Table 4.3.** Granted EPSM licences for bats are shown in **Table 4.4.**

Table 4.3: Bat records within 2km of the application site.

Common Name	Latin Name	Protection	Number of Records	Nearest Location	Date of most recent record
Serotine	*Eptesicus serotinus*	CHSR[1]; WCA[2].	2	2km	2009
Noctule	*Nyctalus noctula*	CHSR, WCA; SPIE[3].	2	0.8km	2017
Common pipistrelle	*Pipistrellus pipistrellus*	CHSR, WCA.	7	0.4km	2017
Soprano pipistrelle	*Pipistrellus pygmaeus*	CHSR, WCA; SPIE.	2	0.8km	2017
Brown long-eared	*Plecotus auritus*	CHSR, WCA; SPIE.	2	0.8km	2017
Pipistrelle	*Pipistrellus* Sp	CHSR, WCA; SPIE.	1	2km	2012
Myotis	*Myotis* Sp	CHSR, WCA; SPIE.	1	0.8km	2017

[1] Conservation of Habitats and Species Regulations 2017.
[2] Wildlife and Countryside Act 1981 (as amended).
[3] Species of Principal Importance in England of Section 41 of the Natural Environmental and Rural Communities Act (NERC), 2006.

Table 4.4: Granted bat mitigation licence applications within 2km of the site.

Case Reference	Type of Habitat	Distance & Direction	Licence Start & End Dates
EPSM2011-3427	Resting Place	1.4km SW	29/09/2011 to 31/12/2011

4.3.6.1 Roosting (Trees)

A small number of predominantly coniferous trees and a palm tree were recorded within the site. All trees within the site lacked PRFs which could be used by bats (holes, cracks, or fissures) and therefore were of **negligible** suitability for roosting bats.

No further surveys for roosting bats are considered necessary.

4.3.6.2 Roosting (Buildings)

The relevant buildings on site have been described below. Refer to **Appendix 1** for the building locations.

Bungalow

An unoccupied, brick-built bungalow that measured L x c.19m and W x c.11m. The building comprised an asymmetric, pitched roof with interlocking concrete tiles (**Photo 4.11**). Hanging tiles were also present in three locations on the northern and southern elevations of the building (**Photo 4.12**). Gaps were recorded beneath the bottom row of each set of hanging tiles and several hanging tiles were also slightly lifted which provided potential roosting opportunities for crevice dwelling bats.

The building had a single roof space of traditional cut rafters lined with bitumen felt and insulated with mineral wool (**Photo 4.13**). No bat droppings or signs of bats were recorded within the roof space.

Overall, the bungalow was considered to offer **low suitability** for roosting bats.

Photo 4.11: Bungalow, northern elevation.

Photo 4.12: Hanging tiles on the southern elevation.

Photo 4.13: Bungalow, internal loft space facing north.

Garage

A single storey brick-built garage with a flat felt roof that measured L x c.6m and W x c.5.5m was present in the south east corner of the site (**Photo 4.14**). The garage had single-glazed windows with timber doors and fascias. Generally, the building was well-sealed and the brickwork was in good condition with no significant cracks or gaps large enough for bats to enter. Internally, the roof was lined with timber sarking and no bats or signs of bats were recorded within the building (**Photo 4.15**). The garage was of **negligible suitability** for roosting bats.

Overall Suitability for Roosting Bats in Buildings

Several access points and roosting opportunities were available for bats within the bungalow. The roost assessment concluded that the bungalow offered **low suitability** for roosting bats and the garage held **negligible suitability** for roosting bats.

Further surveys of the bungalow for roosting bats have therefore been recommended in **Section 5**.

Photo 4.14: Garage, northern elevation.

Photo 4.15: Garage, internal, facing east.

4.3.6.3 Foraging and Commuting

Suitable habitat (scattered trees and hedgerows) for foraging and commuting bats was recorded within the site. However, the site was relatively small and not connected to larger areas of suitable habitat or woodland within the wider area.

It was considered possible that the site could be used by common species of bats for limited amounts of foraging and commuting activity. However, further activity surveys would be unlikely to yield additional or valuable information as bat activity on the site is likely to be low.

The site held **low value** for foraging or commuting bats, precautionary measures are recommended in **Section 5**.

4.3.7 Hedgehogs and Other BAP / Rare Species

The EFC returned two recent records of hedgehog *Erinaceus europaeus,* the latest from 2017 and nearest 0.1km from the site. Some areas of habitat had **moderate** potential for hedgehogs, including the ruderal vegetation for foraging and the hedgerow and shrub bases for shelter. Suitable habitat was present in the adjacent gardens and with more favourable habitat present in the nearby woodlands.

Precautionary mitigation for hedgehogs has been outlined in **Section 5**.

The EFC did not return any recent records of brown hare *Lepus europaeus*. Habitat on the site had **negligible** potential to be used by brown hares, however, there were areas of more favourable habitat in the wider landscape.

No further actions for brown hare are recommended.

4.3.8 Invasive Plants

Small-leaved cotoneaster *Cotoneaster microphyllou* was recorded in two locations within the site (**TN1 and TN2**). Rhododendron (**TN3**) was also recorded within the eastern end of Hedgerow H1, adjacent to entrance of the site. These invasive plant species are listed under Schedule 9 of the *WCA*.

Further action has therefore been recommended.

5 Recommendations

This section discusses recommendations for further surveys, general mitigation, and possible enhancements in line with relevant wildlife legislation and planning policy (see **Appendix 2**).

5.1 Further Surveys / Assessments

5.1.1 Bat Roosts: Buildings

The bungalow was assessed as having **low suitability** for roosting bats. One bat emergence survey between May and August is therefore recommended in line with current guidance (Collins, 2016).

If roosting bats are identified using the building and impacts are considered likely to cause a legal offence, up to two further appropriately spaced bat emergence/re-entry surveys between May – September and a EPSM Licence from Natural England would be required prior to works.

5.2 General Mitigation

5.2.1 Hedgerows and Scattered Trees

The following measures should be implemented to minimise impacts to hedgerows and trees:

- Retain native hedgerows and trees where possible and protect where required during construction with Heras fencing in line with *Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012* (BSI, 2012);
- Replant any trees lost to the development with native specimens of local provenance (refer to **Appendix 5** for suitable species);
- Link existing hedgerows where possible to preserve habitat connectivity.

5.2.2 Birds

Clear the buildings and woody habitats between September and February (inclusive) to avoid the breeding bird season. Alternatively, an ecologist should check potential nesting habitat immediately before clearance that is scheduled during the breeding season (March to August inclusive). Any active nests identified must be retained *in situ* with a suitable buffer until the ecologist has confirmed that the chicks have fledged and the nest is no longer active.

5.2.3 Foraging and Commuting Bats

The following measures should be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (ILP, 2018):

- Avoid illuminating roosts, swarming sites and corridors used by light averse species for commuting and foraging;
- Direct any task lighting used during construction away from trees and hedges;
- Set any necessary security lighting on short timers (e.g. 1 minute) with a sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation;
- Limit lighting times to provide dark periods;

- LED luminaires are preferred due to the lower intensity, sharp 'cut-off', colour rendition and dimming capability;
- All luminaires should lack UV elements and metal halide fluorescent sources should not be used. Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and
- Carefully consider the height of columns to avoid light spill.

Post-completion lighting surveys may be required to confirm that the as proposed lighting levels, luminaire heights, design and shielding have been achieved.

5.2.4 Hedgehog

Use these measures to avoid/reduce potential impacts to hedgehogs:

- Install any new garden fences with either a 15cm tall gap along the base or provide hedgehog links (15cm x 15cm holes at the base) at 10m intervals to allow hedgehogs to move freely between gardens and adjacent habitats; and

5.2.5 Invasive Species: Cotoneaster and Rhododendron

Cotoneaster (**TN1** and **TN2**, **Appendix 1**) and Rhododendron (**TN3**) was recorded within the site. Any plants should be manually dug out of the ground and then immediately bagged, ensuring that none of the cotoneaster berries are left behind. Plants should then be disposed of at an appropriately licensed waste-disposal facility to ensure that these invasive non-native species is not spread off-site.

5.2.6 Common Amphibians

Materials will be stored off the ground on pallets to prevent common amphibian species from taking refuge under them.

5.2.7 General Site Measures

Use these precautionary measures to avoid / reduce impacts to wildlife:

- Cover any trenches, holes or deep pits overnight, or use secured planks to allow any animals that fall in to escape during construction. A member of staff should check the site at the end of each working day to ensure that these provisions to protect nocturnal species (such as hedgehog) have been made.

5.3 Enhancements and Biodiversity Net Gain

5.3.1 Biodiversity Net Gain

National planning policy and the Local Plan require development proposals to demonstrate post development gains in biodiversity as measured using an approved metric.

Under the NPPF planners have a duty to protect and enhance biodiversity. The framework requires plans to promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species. Plans will identify and pursue opportunities for securing **measurable net gains for biodiversity** (MHC&LG, 2019). This national policy is supported by the local plan.

The local authority is likely to request different criteria to satisfy Biodiversity Net Gain (BNG) dependent upon the scale of the proposed development. A "minor" development (usually five or fewer houses) (Baker, et al., 2019) would likely require a biodiversity enhancement scheme

(BES) to be supplied with a planning application. A "moderate" development (usually between five to ten houses) would likely require a simplified biodiversity metric to demonstrate gains and a "major" development (10 houses or greater) is likely to require pre and post development calculations using a recognised metric (e.g. Natural England, 2019).

BNG is an iterative design process and it is suggested that the design is assessed in terms of opportunities for meaningful habitat retention, enhancement and creation. The following are suggested as potential means of balancing the project's biodiversity impact:

- Balance the number of residential units with the amount of habitat created/retained;
- Incorporate habitats that are of national or local priority or which are subject to local conservation objectives;
- Create public open space that will benefit the local community and wildlife; and
- Link habitats e.g. green corridors, to provide connectivity and habitat permeability.

5.3.2 Opportunities for Other Enhancements

The enhancements below are intended to increase the value of the site for wildlife, as encouraged through the National Planning Policy Framework, and to help achieve local BAP targets (see **Appendix 2**):

1) Install one Schwegler 1B General Purpose Bird Box onto retained suitably mature trees. Choose boxes with a variety of nest-hole sizes to attract a variety of species (e.g. 26mm, 32mm and 55mm oval). Fit the boxes at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
2) Install one Schwegler 1SP Sparrow Terrace. These can be surface mounted or integrated within new or existing buildings and would provide valuable nesting sites for the declining red listed house sparrow. Fit the terraces in small groups at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
3) Install one Schwegler IFF and / or 2F Bat Box onto retained suitably mature trees to enhance roosting opportunities within the site for bats. Typically bat boxes are installed at least 5m above the ground and facing in a southerly direction to receive sun for part of the day. Locations close to artificial lighting are to be avoided, ideally boxes will be located adjacent to commuting or foraging habitat such as lines of trees or hedgerows. Clear access for bats to the boxes should be maintained over the longer term which may involve light intervention (e.g. the pruning of over-hanging branches or ivy). Always consult with an experienced bat ecologist regarding the installation and positioning of bat boxes; and
4) Incorporate native species within the planting schedules of any new soft landscaping. A list of suitable, wildlife friendly, fruit and nectar bearing species is provided below (**Appendix 5**).

6 Conclusion

The development can proceed with minimal impact to habitats and protected / notable species if the mitigation measures outlined within **Section 5,** and any measures arising from the further surveys, are implemented.

There is also the opportunity to enhance the development for local wildlife in the long-term by implementing the enhancement measures.

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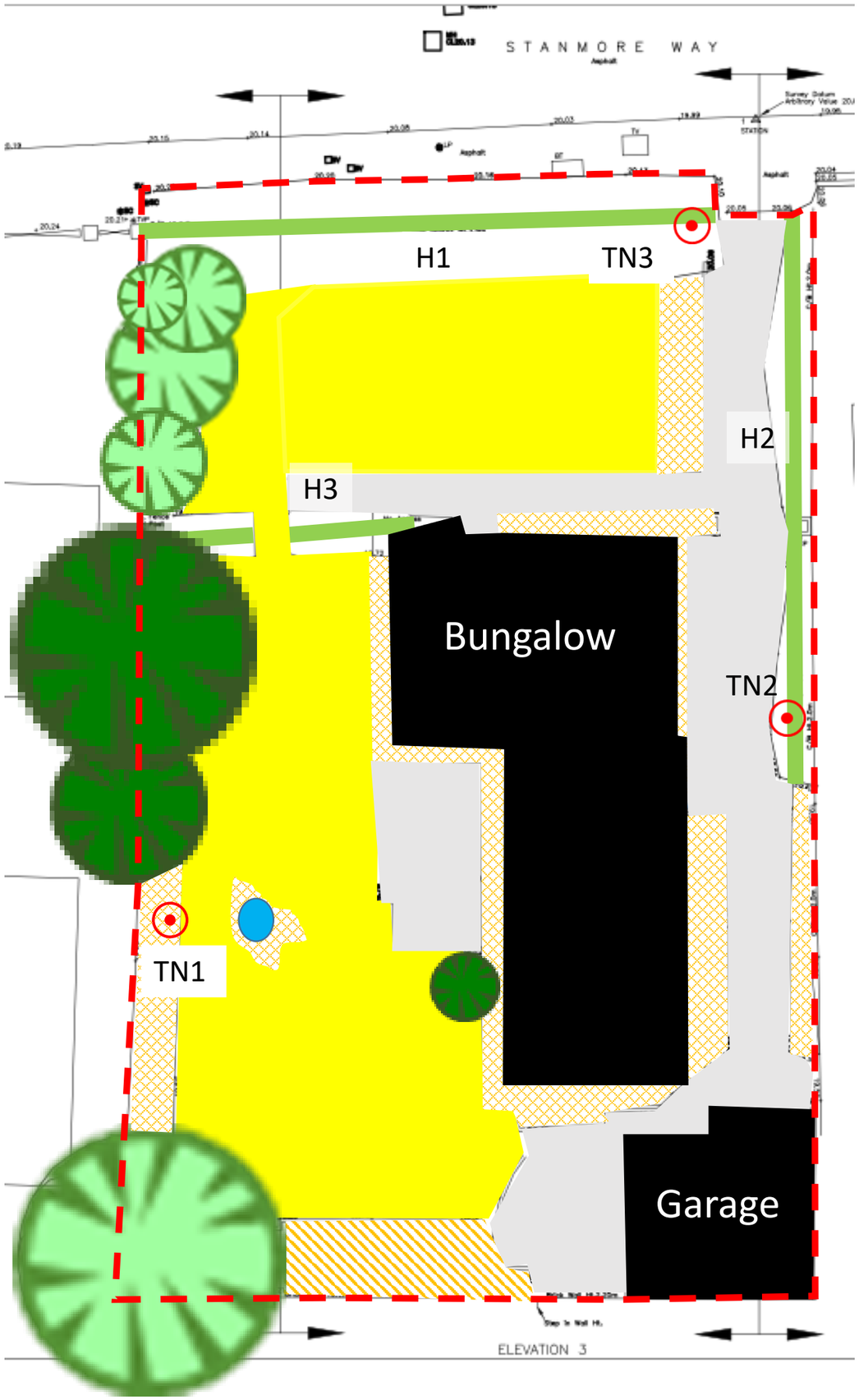
Appendix 1 Phase I Habitat Map



Legend

- Building
- Amenity Grassland
- Hardstanding
- Species Poor, Intact Hedge
- Introduced Shrub
- Scattered Broad-leaved Tree
- Scattered Coniferous Tree
- Site Boundary
- Target Note
- Ruderal vegetation
- Water feature

Project

8 Stanmore Road, Loughton

Title

Phase 1 Habitat Map

Client

T Brough

agb Environmental Ltd
Newmarket Business Centre, 341 Exning Road,
Newmarket. CB8 0AT
Tel: 01638 663 226
Email: Info@agbenvironmental.co.uk
Web: www.agbenvironmental.co.uk

Date 27th February 2020

Scale NTS

Project number . Drawing number

P3504.1

Appendix 2 Legislation & Planning Policy

Legislation

Conservation of Habitat and Species Regulations (CHSR)

The *CHSR 2017* transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The 2019 Regulations, introduced following the United Kingdom's exit from the European Union, amends the Habitats directive and the Birds Directive by transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

Wildlife & Countryside Act (WCA)

The *WCA 1981*, as amended by the *Countryside and Rights of Way Act (CRoW) 2000* and the *Natural Environment and Rural Communities Act (NERC) 2006*, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

Natural Environment & Rural Communities (NERC) Act

The *NERC Act 2006* amends the *CRoW Act*, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Birds	Protection under the *Wildlife and Countryside Act, 1981 (as amended)*.	It is an offence to: • intentionally kill, injure or take any wild bird. • intentionally take, damage or destroy nests in use or being built (including ground nesting birds). • intentionally take, damage or destroy eggs. • Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests.
Bats	Fully protected species under the *Conservation of Habitats and Species Regulations (as amended) 2017*. Full protection under *Schedule 5* of the *Wildlife and Countryside Act, 1981 (as amended).* Protected by the *Wild Mammals (Protection) Act 1996*.	It is an offence to: • intentionally kill, injure, or take any species of bat. • intentionally or recklessly disturb bats. • intentionally or recklessly damage destroy or obstruct access to bat roosts.
Wild Mammals	The *Wild Mammals (Protection) Act 1996*.	This makes it an offence to: • crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering. This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery.

National Planning Policy

National Planning Policy Framework (NPPF)

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications (MHC&LG, 2019). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

Under the NPPF planners have a duty to promote the conservation, restoration and enhancement of priority habitats. 'Plans should identify and pursue opportunities for securing measurable net gains for biodiversity'.

The NPFF works in conjunction with Government Circular *06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System*.'

Regional and Local Planning Policy and Guidance

Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC act.

UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).

Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

Appendix 3 Characterising the Suitability of Habitats for Bats

Table A3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Negligible roosting suitability	Negligible habitat features within the site likely to be used by roosting bats.
Low roosting suitability	A structure with one or more features that could be opportunistically used by individual bats. Unlikely to support maternity or hibernation roosts.
Moderate roosting suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat (unlikely to support roosts of high conservation status).
High roosting suitability	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed roost	Evidence of bat occupation found.

Table A3.2: Classifying the bat roosting suitability of trees (Collins, 2016).

Negligible roosting suitability	Trees with few, if any, features suitable for roosting.
Low roosting suitability	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate roosting suitability	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat. These trees are unlikely to support a roost of high conservation status.
High roosting suitability	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Table A3.3: Classifying the suitability of bat foraging and commuting habitat (Collins, 2016).

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 or poorly connected to habitat in the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens. Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub grassland and 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, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by commuting bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Appendix 4 Bird Species Recorded Within 2km of the Site

Table A4.1: Protected and endangered bird species recorded within 2km of the site.

Scientific Name	Common	Schedules
Acanthis cabaret	Lesser Redpoll	S41, BoCC red
Alauda arvensis	Skylark	S41, Birds Directive A2.2, LBAP, BoCC red
Alcedo atthis	Kingfisher	Bern A2, Birds Directive A1, BoCC amber WCA Sch1
Anthus pratensis	Meadow Pipit	Bern A2, BoCC amber
Apus apus	Swift	BoCC amber
Ardea alba	Great White Egret	Bern A2,
Bombycilla garrulus	Waxwing	Bern A2
Certhia familiaris	Treecreeper	Bern A2
Charadrius hiaticula	Ringed Plover	Bern A2, WCA Sch1
Chloris chloris	Greenfinch	Bern A2
Cuculus canorus	Cuckoo	S41, BoCC red
Delichon urbicum	House Martin	Bern A2, BoCC amber
Dendrocopos minor	Lesser Spotted Woodpecker	Bern A2, S41, BoCC red
Egretta garzetta	Little Egret	Bern A2, Birds Directive A1,
Emberiza citrinella	Yellowhammer	Bern A2, S41, BoCC red
Emberiza schoeniclus	Reed Bunting	Bern A2, S41, BoCC amber
Falco peregrinus	Peregrine	Bern A2, Birds Directive A1, WCA Sch1
Falco subbuteo	Hobby	Bern A2, WCA Sch1
Ficedula hypoleuca	Pied Flycatcher	Birds Directive A2.2, BoCC red,
Fringilla montifringilla	Brambling	WCA Sch1
Gallinago gallinago	Snipe	Birds Directive A2.1, BoCC amber
Hirundo rustica	Swallow	Bern A2
Larus argentatus	Herring Gull	Birds Directive A2.2, BoCC red,
Larus canus	Common Gull	Birds Directive A2.2, BoCC amber
Larus fuscus	Lesser Black-backed Gull	Birds Directive A2.2, BoCC amber
Larus marinus	Great Black-backed Gull	Birds Directive A2.2, BoCC amber
Linaria cannabina	Linnet	Bern A2, BoCC red,

Scientific Name	Common	Schedules
Mergellus albellus	Smew	Bern A2, BoCC amber,
Milvus milvus	Red Kite	Birds Directive A1, WCA Sch1
Motacilla cinerea	Grey Wagtail	Bern A2, BoCC red,
Motacilla flava	Yellow Wagtail	Bern A2, BoCC red,
Muscicapa striata	Spotted Flycatcher	Bern A2, S41, BoCC red
Passer domesticus	House Sparrow	S41, BoCC red
Phylloscopus trochilus	Willow Warbler	BoCC amber
Prunella modularis	Dunnock	Bern A2, BoCC amber
Pyrrhula pyrrhula	Bullfinch	BoCC amber
Rallus aquaticus	Water Rail	Birds Directive A2.2
Regulus ignicapilla	Firecrest	Bern A2, WCA Sch1
Regulus regulus	Goldcrest	Bern A2
Riparia riparia	Sand Martin	Bern A2
Saxicola rubetra	Whinchat	Birds Directive A2.1, BoCC red
Scolopax rusticola	Woodcock	Birds Directive A2.1, BoCC red
Sitta europaea	Nuthatch	Bern A2
Sterna hirundo	Common Tern	Bern A2, Birds Directive A1, BoCC amber
Streptopelia turtur	Turtle Dove	Birds Directive A2.1, BoCC red
Sturnus vulgaris	Starling	Birds Directive A2.2, BoCC red,
Turdus iliacus	Redwing	Birds Directive A2.2, BoCC red, WCA Sch1
Turdus philomelos	Song Thrush	Birds Directive A2.2, LBAP, BoCC red
Turdus pilaris	Fieldfare	Birds Directive A2.2, BoCC red, WCA Sch1
Turdus torquatus	Ring Ouzel	Bern A2, S41, BoCC red,
Turdus viscivorus	Mistle Thrush	Birds Directive A2.2, BoCC red
Tyto alba	Barn Owl	Bern A2, WCA Sch1
Vanellus vanellus	Lapwing	S41, Birds Directive A2.2, BoCC red

Appendix 5 Wildlife-Friendly Planting

Table A5.1: Native and wildlife-friendly shrubs (Natural England, 2008).

Common Name	Scientific Name
Hazel	*Corylus avellana*
Elder	*Sambucus nigra*
Goat willow	*Salix caprea*
Hawthorn	*Crataegus monogyna*
Dog rose	*Rosa canina*
Guelder rose	*Viburnum opulus*
Gorse	*Ulex europaeus*
Broom	*Cytisus scoparius*
Wayfaring tree	*Viburnum lantana*
Shrubby cinquefoil	*Potentilla fruticosa*
Raspberry	*Rubus idaeus*
Alder buckthorn	*Frangula alnus*
Wild privet	*Ligustrum vulgare*
Barberry	*Berberis × stenophylla*
Barberry	*Berberis vulgaris*
Bell heather	*Erica cinerea*
Bilberry	*Vaccinium myrtillus*
Black currant	*Ribes nigrum*
Blackthorn	*Prunus spinosa*
Buckthorn	*Rhamnus catharticus*
Butcher's-broom	*Ruscus aculeatus*
Cowberry	*Vaccinium vitis-idaea*
Cross-leaved heath	*Erica tetralix*
New Zealand holly	*Olearia macrodonta*
Daphne	*Daphne odora*
Dogwood	*Cornus sanguinea*
Field rose	*Rosa arvensis*
Firethorn	*Pyracanthus angustifolia*
Flowering Currant	*Ribes sanguineum*
Gooseberry	*Ribes uva-crispa*
Hebe 'Midsummer Beauty'	*Hebe* sp.
Holly	*Ilex aquifolium*
Japanese quince	*Chaenomeles japonica*
Lilac	*Syringa vulgaris*
Mexican orange	*Choisya ternata*
Mezereon	*Daphne mezereum*
Midland hawthorn	*Crataegus laevigata*
Oregon grape	*Mahonia aquifolium*
Osier	*Salix viminalis*
Portugal laurel	*Prunus lusitanica*
Privet	*Ligustrum ovalifolium*
Purple willow	*Salix purpurea*
Snowy mespilus	*Amelanchier canadensis, Amelanchier lamarckii*
Spindle	*Euonymus europaeus*
Spurge laurel	*Daphne laureola*
Sweet briar	*Rosa rubiginosa*

Common Name	Scientific Name
Wild privet	*Ligustrum vulgare*

Table A5.2: Native and wildlife-friendly trees **(**Natural England, 2008).

Common Name	Scientific Name
Pedunculate oak	*Quercus robur*
Wych elm	*Ulmus glabra*
Whitebeam	*Sorbus aria agg.*
Rowan	*Sorbus aucuparia*
Aspen	*Populus tremula*
Apple	*Malus domestica*
Bird cherry	*Prunus padus*
Common alder	*Alnus glutinosa*
Crab apple	*Malus sylvestris*
Crack willow	*Salix fragilis*
Downy birch	*Betula pubescens*
Field maple	*Acer campestre*
Hornbeam	*Carpinus betulus*
Juniper	*Juniperus communis*
Large-leaved lime	*Tilia platyphyllos*
Small-leaved lime	*Tilia cordata*
Pear	*Pyrus communis*
Scots pine	*Pinus sylvestris*
Sessile oak	*Quercus petraea*
Silver birch	*Betula pendula*
Sweet chestnut	*Castanea sativa*
Wild cherry	*Prunus avium*
Wild service-tree	*Sorbus torminalis*
Yew	*Taxus baccata*