

Preliminary Ecological Appraisal Report The Croft, Bromborough

> Reference:80-472-R1-1 Date: February 2021



PRELIMINARY ECOLOGICAL APPRAISAL REPORT

The Croft Bromborough

Prepared for: Redsun Projects Ltd

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E₃P

Taylor Road Trafford Park Urmston Manchester M41 7JQ

+ 44 (0) 161 707 9612 https://e3p.co.uk/

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PREPARED BY	C. Barlow		
QUALIFICATIONS	BSc (Hons), MSc, MIEnvSc, CEnv, MCIEEM, Principal Ecologist		
SIGNATURE	S flam		
CHECKED BY	O. Mckechnie		
QUALIFICATIONS	BSc (Hons), QCIEEM, Project Manager-Ecology		
SIGNATURE	ORMES		
AUTHORISED BY	S. Cox		
QUALIFICATIONS	BSc (Hons), FGS, AIEMA, MIEnvSc, CEnv, Director		
SIGNATURE	Eex		



Certificate Number 11890



EXECUTIVE SUMMARY

Site Address	The Croft, Bromborough, Birkenhead, Wirral, CH62 3PL		
Coordinates	E 335033, N 382847		
Site Area	Approximately 2.3 ha		
Current Site Use and Adjacent Site Use	The site comprised an area of amenity grassland bordered by treelines and hedgerows. The site is located withing the Croft Retail and Leisure Park.		
Designated Sites	The site is located within the Impact Risk Zone of Brotherton Park and Dibinsdale LNR and SSSI, The Mersey Estuary SPA, Ramsar and SSSI and New Ferry SSSI. No impacts on the designated site are anticipated as a result of development, based on their distance from the site and the commercial nature of the development.		
	The site was found to comprise amenity grassland, treelines, introduced shrub and a building. The site was found to have the following potential ecological constraints:		
Survey Results	Potential foraging opportunities for bats within the treelines.		
	A number of trees were assessed as having Low potential to support roosting bats.		
	Opportunities for nesting birds within the treelines and introduced shrub.		
	No further surveys are deemed necessary to inform a planning application.		
	The following mitigation is recommended:		
Conclusions	If any vegetation requires removal, it should be removed outside of the breeding bird season (March to September inclusive). If this is not possible, a nesting bird check should be undertaken by a suitably qualified ecologist up to 24 hrs before works commence. If a nest, or nest in construction, is located, then a stand-off distance should be maintained until the young have fledged.		
	T48, T54, T72 and T74 will be soft felled under the supervision of a bat licenced ecologist. Once the trees have been felled, they will be left on the ground overnight so any bats, in the unlikely instance they are present, can escape.		
	A gain in biodiversity will likely be required on-site. If this cannot be achieved on-site, a conservation offset payment, or off-site compensation may be required.		



Table of Contents

EXECUTIVE SUMMARY		
1. INTE	RODUCTION	. 5
1.1.	Background	5
1.2.	Proposed Development	5
1.3.	Site Location	5
1.4	Objectives	6
2. MET	HODOLOGY	.7
2.1.	Desktop Study	7
2.2.	Vegetation and Habitats	7
2.3.	Fauna	8
2.4.	Preliminary Roost Assessment	8
2.5.	Survey Limitations	9
3. SUR	VEY RESULTS	10
3.1.	Site Context	10
3.2.	Designated Sites	10
3.3.	Habitats	10
3.3.1	. Amenity Grassland	10
3.3.2	2. Treelines	11
3.3.3	8. Introduced Shrub	12
3.3.4	k. Building	12
3.4.	Protected and Notable Species	13
3.4.1	. Species Discounted from Assessment	13
3.4.2	2. Amphibians	13
3.4.3	Bats	14
3.4.4	k. Badger	16
3.4.5	5. Other Terrestrial Mammals	16
3.4.6	b. Breeding Birds	17
3.4.7	7. Reptiles	17
3.4.8	B. Invertebrates	17
3.5.	Invasive Plant Species	17
4 500		10
4. ECU	LUGICAL CONSTRAINTS AND MITIGATION	10
4.1.	Development Proposals	18
4.2.	Designated Sites	18
4.3.	I reelines	18
4.4.	Protected and Notable Species	19
4.4.1	. Breeding Birds	19
4.4.2	2. Bats	19
5. FUR	THER SURVEYS	20
		_
6. OPP	ORTUNITIES FOR ECOLOGICAL ENHANCEMENT	21
6.1.	Design Advice for Biodiversity Net Gain	21



7.	REFERENCES	22
APP	ENDIX I PHASE 1 HABITAT PLAN	24



1. INTRODUCTION

1.1. BACKGROUND

E3P were commissioned by Redsun Projects Ltd to undertake a Preliminary Ecological Appraisal at The Croft, Bromborough, hereafter referred to as "the site".

This report has been prepared by Celia Barlow BSc (Hons) MSc MIEnvSc CEnv MCIEEM Principal Ecologist at E3P. Celia holds both Class 1 great crested newt and bat Natural England licences, Field Identification Skills Certificate (FISC) Level 3 and has key experience with amphibians and reptiles.

1.2. PROPOSED DEVELOPMENT

It is understood that the site will be subject to commercial development, with a number of retail units and associated car parking proposed.

1.3. SITE LOCATION

The site is located within The Croft Retail and Leisure Park. Welton Road defines the eastern and western site boundary. Calbeck Road defines the southern site boundary, a car park is located adjacent to the northern boundary. The River Mersey is located approximately 900 m east of the site boundary.

Please refer to Figure 1.1 for the approximate site location.





1.4. **OBJECTIVES**

The objectives of the Preliminary Ecological Appraisal are as follows:

- Identify the major habitats present.
- Ascertain the presence or potential presence of any legally protected species and habitats.
- © Recommend any further surveys or mitigation that may be required.

The Preliminary Ecological Appraisal comprises a desk study and site walkover. This survey has been completed as a baseline assessment of the site, and as such please see the end of the report for further surveys and mitigation proposed.



2. METHODOLOGY

2.1. DESKTOP STUDY

The following sources of information and ecological records were consulted:

- MAGIC A web-based interactive mapping system, on which geographic information regarding key environmental schemes and designations are collated, including details of statutory conservation sites, accessed February 2021.
- Serial mapping and ordinance survey maps.
- Local data records, including rECOrd The Biodiversity Information System for Chester, received on 12th February 2021.

A 1 km search area was utilised for the data search, with this being deemed an appropriate distance for the zone of influence of the site, due to the size of the site and the surrounding habitat.

The data search included the request for details of protected and notable species of flora and fauna within 1 km of the central grid reference of the site. In addition, a request was made for any non-statutory designated sites within 1 km of the site boundary.

Please note that a lack of up-to-date records does not confirm absence of a species from the area. Lack of records may simply be a result of a lack of protected species surveys being undertaken within the local area.

2.2. VEGETATION AND HABITATS

A Preliminary Ecological Appraisal of the proposed development site was undertaken by Celia Barlow on 9th February 2021. The weather was overcast with light rain.

The walkover survey was undertaken to the standard methodology as detailed by the *JNCC Handbook for Phase 1 Habitat Survey, 2010.* The assessment follows the methodology as per "Guidelines for Preliminary Ecological Appraisal" (CIEEM, 2017).

A vegetation and habitat plan has been produced for the proposed development site and the immediate surrounding area (please refer to Appendix I). The mapping is based on the *Joint Nature Conservation Committee Phase I Habitat Survey Methodology* (JNCC 2010).

Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. All plant nomenclature follows Stace (2019).

Searches were carried out for the presence of invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) including but not limited to Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*).



2.3. FAUNA

A thorough search of the site for signs of protected species of fauna was undertaken during the site walkover. These searches considered the following:

- Suitability of any ponds to support notable amphibians, and the suitability of the site's terrestrial habitats to support amphibians.
- Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- Signs of badgers, by way of setts, mammal paths, foraging signs or latrines to indicate usage of the site by the species.
- Search of any watercourses for signs or suitability for water vole and otter by way of burrows, resting places, holts and foraging signs.
- Suitability of the site to support roosting, foraging and commuting bats.
- Suitability of the site to support notable bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.

2.4. PRELIMINARY ROOST ASSESSMENT

The Preliminary Roost Assessment (PRA) was undertaken by Celia Barlow on 9th February 2021. Celia holds a valid Natural England Class 1 Survey Licence (2017-32202-CLS-CLS.).

The survey involved undertaking a systematic search of the trees and building searching for signs of bats, or spaces where bats would be able to access. The methodology followed that described in *Bat Surveys for Professional Ecologists, 3rd Edition* (Collins, 2016).

The trees and building were categorised for their bat roosting potential as described in Table 2.1 in accordance with Collins (2016).

CATEGORY	DESCRIPTION
NEGLIGIBLE	A tree or building with no roosting features present or of an age/species that would not support roosting bats.
LOW	A tree or building with one or more potential roost site. However, the potential roost sites do not provide suitability for large numbers of bats (i.e. for maternity or hibernation) and would only be used on an occasional basis.
MODERATE	A tree or building with one or more potential roosting feature which could support bats but is of a suitability meaning that it would be unlikely to support a roost of high conservation status.

TABLE 2.1 BAT ROOSTING POTENTIAL CLASSIFICATION OF TREES AND BUILDINGS



CATEGORY	DESCRIPTION
HIGH	A tree or building with several potential roosting features which could support large number of bats on a regular basis and for longer periods of time. The tree or building would have suitability to support maternity or hibernation roosts.

The survey was undertaken utilising suitable binoculars and ladders to access all areas where safe to do so.

2.5. SURVEY LIMITATIONS

A Preliminary Ecological Appraisal does not constitute a full botanical survey. Instead, key species are identified to give a representative description of each habitat type.

This survey was undertaken in February, which is an appropriate time of year to undertake ecological surveys. However, due to vegetation die back and lack of flowering, it is possible that some species of flora may have been missed or misidentified. It is possible that some invasive/non-native species could have been missed during the survey. Due to the habitats present on-site, this is not considered to be a constraint.



3. SURVEY RESULTS

3.1. SITE CONTEXT

The site comprised an area of amenity grassland with treelines present along the northern and southern boundary. The treelines are anticipated to provide nesting opportunities for common bird species.

The site is located within the Croft Retail and Leisure Park which is of limited value for local wildlife. Brotherton Park and Dibbinsdale Local Nature Reserve (LNR) is located approximately 350 m west of the site. The River Mersey is located approximately 900 m east of the site. These habitats are anticipated to offer a number of valuable resources for local fauna.

No waterbodies were identified within 250 m of the site boundary.

3.2. DESIGNATED SITES

The site is located within the Impact Risk Zone of the following Sites of Special Scientific Interest (SSSI):

- Brotherton Park and Dibbinsdale LNR and SSSI, located approximately 300 m west of the site boundary. This SSSI is designated as it is the largest area of semi-natural woodland of its type in Merseyside, which supports a diverse range of rich flora and fauna species. It is a notable area for breeding birds, with 61 species breeding regularly in the area.
- The Mersey Estuary Special Protection Area (SPA), Ramsar and SSSI, located approximately 940 m east of the site boundary. This designated site is internationally important for wildfowl. The estuary provides important roosting sites for wildfowl and waders at high tide.
- New Ferry SSSI located approximately 900 m east of the site boundary. The SSSI is notified for its large areas of intertidal sand, mudflats and other habitats, which support two nationally important species of wintering waterfowl, pintail (*Anas acuta*) and black-tailed godwit (*Limosa limosa*).

Old Hall Road Woods, Bromborough Local Wildlife Site (LWS), Site Code 51, was identified approximately 770 m south east of the site boundary. The site comprises an area of broadleaved woodland.

3.3. HABITATS

The main habitats encountered during the survey are described in the following subsections. Please refer to Appendix I for the Phase 1 Habitat Plan.

3.3.1. AMENITY GRASSLAND

The majority of the site comprised an amenity grassland field, which is used recreationally by dog walkers. The amenity grassland was maintained at a low sward, making species identification difficult. Species present included perennial rye-grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), white clover (*Trifolium repens*), ribwort plantain (*Plantago lanceolata*), dandelion (*Taraxacum officinale agg.*), common mouse-ear (*Cerastium fontanum*) creeping buttercup (*Ranunculus repens*), daisy (*Bellis*)



perennis), herb-Robert (Geranium robertianum), cleavers (Galium aparine), smooth sow-thistle (Ervum tetraspermum) and greater plantain (Plantago major).



3.3.2. TREELINES

Two treelines were present within the site boundary, Treeline 1 (TL1) and Treeline 2 (TL2).

TL1 was located along the northern boundary of the site. Species present included Norway maple (*Acer platanoides*), wild cherry (*Prunus avium*), alder (*Alnus glutinosa*), field maple (*Acer campestre*), pedunculate oak (*Quercus robur*), silver birch (*Betula pendula*) and Italian alder (*Alnus cordata*).



TL2 weas located along the southern boundary of the site. Species present included red oak (*Quercus rubra*), crack willow (*Salix fragilis*), bird cherry (*Prunus padus*), blue atlas cedar (*Cedrus atlantica*), wild cherry, Corsican pine (*Pinus nigra*), downy birch (*Betula pubescens*), Italian alder, alder and silver birch.





3.3.3. INTRODUCED SHRUB

Areas of introduced shrub were present at the base of some areas of TL1 and TL2. The introduced shrub was managed on the northern side of the boundary adjacent to the supermarket car park, however, was left unmanaged on the aspect bordering the site. Species present included cotoneaster species (*Cotoneaster sp.*), bay laurel (*Laurus nobilis*), cherry laurel (*Prunus laurocerasus*), holly (*Ilex aquifolium*) and elder (*Sambucus nigra*).



3.3.4. BUILDING

A single small building, Building 1 (B1) was located within the site, which was thought to be a substation.



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3.4. PROTECTED AND NOTABLE SPECIES

3.4.1. SPECIES DISCOUNTED FROM ASSESSMENT

White-clawed crayfish (*Austropotamobius pallipes*), otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) have been discounted from assessment as no suitable aquatic habitats were located on-site or within proximity to the site.

Hazel Dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews et al, 2018). The species are not generally known to be present within the Bromborough area and as such, the species is reasonably discounted from assessment.

3.4.2. AMPHIBIANS

Consultation with rECOrd identified a number of common toad (*Bufo bufo*) records within 1 km of the site. All of the records were associated within Dibinsdale LNR and SSSI, located approximately 300 m west of the site boundary.

Consultation with MAGIC did not identify any great crested newt (*Triturus cristatus*) European Protected Species Licences within the 1 km search area, the closest licence was located approximately 6.3 km south west of the site, active during 2013 for the destruction of a great crested newt resting place.

Great crested newts' upper dispersal limit is generally considered to be up to 250 m from a waterbody (though occurrence of greater distances does exist where habitat connectivity is of high quality) (English Nature, 2001). As such, the presence of great crested newts on-site is reasonably discounted as no waterbodies were located on-site or within 250 m of the site.

Common amphibians could utilise the areas of introduced shrub within the site, however based on the site location and lack of connected habitat, common amphibians have been reasonably discounted from the site.



3.4.3. BATS

Consultation with rECOrd identified records of noctule (*Nyctalus noctula*) common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) within the 1 km search area. The records were associated with Old Hall Road Woods, Bromborough LWS located approximately 770 m south east of the site boundary.

Consultation with MAGIC Mapping did not identify the presence of a Natural England Bat Mitigation Licence within the 1 km search area. The closest licence was located approximately 1.1 km north of the site, active from 2017 to 2018 for the destruction of a common pipistrelle non-breeding roost.

B1, a single building was located within the site boundary. The building was red brick built with a flat felt roof. No crevices which could support roosting bats were identified. UPVC facias were present around the building which were well sealed with no opportunities for bat roosting. The building was assessed as having Negligible potential to support roosting bats.



A number of trees were identified as having Low potential to support roosting bats. Please see Table 3.1. Tree references have been kept in line with the Tree Impacts Plan (Tree Heritage, 2018). All of the bat potential trees are proposed for removal.



TABLE 3.1	TREE DESCRIPTIONS		
TREE REFERENCE	PHOTOGRAPH	DESCRIPTION/ ASSESSMENT	
T48		A crack willow identified as having Low potential to support roosting bats due to the presence of small crevices which could be used by crevice dwelling bat species on an occasional basis.	
T54		A crack willow identified as having Low potential to support roosting bats due to the presence of small crevices which could be used by crevice dwelling bat species on an occasional basis.	
T72		An Italian alder identified as having Low potential to support roosting bats due to the presence of small crevices which could be used by crevice dwelling bat species on an occasional basis.	



TREE REFERENCE	PHOTOGRAPH	DESCRIPTION/ ASSESSMENT
T74		An Italian alder identified as having Low potential to support roosting bats due to the presence of small crevices which could be used by crevice dwelling bat species on an occasional basis.

The majority of the site is anticipated to have limited foraging value for bats due to the large areas of amenity grassland that make up most of the site. However, the treelines located within the site will likely attract invertebrate prey for bats. The habitats within the site are unlikely to be used as commuting features, as they provide limited connectivity to the wider landscape. Habitats of higher value are located within close proximity to the east of the site i.e. Brotherton Park and Dibbinsdale LNR and SSSI, located approximately 300 m west of the site boundary.

3.4.4. BADGER

Consultation with rECOrd did not identify any badger (Meles meles) records within the 1 km search area.

The site is assessed as having limited suitability for badger due to the amenity nature of the site. No badger setts or other signs of badger were identified during the survey of the site, or within 30 m of the site boundary.

Brotherton Park and Dibbinsdale LNR and SSSI, located approximately 300 m west of the site boundary may be utilised by badger, and badger are anticipated to be present within the local area. Badger are not anticipated to commute through the site, or forage within it, due to the limited connectivity to wider habitat.

3.4.5. OTHER TERRESTRIAL MAMMALS

One record of European hedgehog (*Erinaceus europaeus*) was located within 1 km of the site boundary. The exact location of the record could not be determined.

The site was assessed as having limited suitability for hedgehogs, and this would be restricted to the areas of introduced shrub. As the introduced shrub was not dense and was restricted to small areas around the boundary of the site, hedgehog are not anticipated to be present.



3.4.6. BREEDING BIRDS

Consultation with rECOrd identified numerous records of notable birds within the search area. Species recorded included kingfisher (*Alcedo athis*), bullfinch (*Pyrrhula pyrrhula*), dunnock (*Prunella modularis*), swallow (*Hirundo rustica*), fulmar (*Fulmarus glacialis*), mandarin duck (*Aix galericulata*), mistle thrush (*Turdus viscivorus*), lesser black-backed gull (*Larus fuscus*), herring gull (*Larus argentatus*), mallard (*Anas platyrhynchos*), jack snipe (*Lymnocryptes minimus*), green woodpecker (*Picus viridis*), cuckoo (*Cuculus canorus*), stock dove (*Columba oenas*), song thrush (*Turdus philomelos*), teal (*Anas crecca*) and reed bunting (*Emberiza schoeniclus*). The records were associated with Old Hall Road Woods, Bromborough LWS located approximately 770 m south east of the site boundary.

Common passerine bird species are anticipated to be present within the treelines and introduced shrub. The site is assessed as having negligible value for ground nesting birds due to the short height of the grassland, which would provide no cover from predators, and disturbance by dog walkers.

3.4.7. **REPTILES**

Consultation with rECOrd did not identify any records of reptiles within the 1 km search area.

The site was found to provide limited value for reptiles, given the majority of the site comprised amenity grassland, which lacks the structure and habitat quality to support the species group. The species group has been reasonably discounted from the site.

3.4.8. INVERTEBRATES

The data search identified cinnabar (*Tyria jacobaeae*) and ringlet (*Aphantopus hyperantus*) within the 1 km search area. The records were associated with Old Hall Road Woods, Bromborough LWS located approximately 770 m south east of the site boundary.

Overall, the presence of notable invertebrates within the site is reasonably discounted due to a lack of good quality habitat that would support notable invertebrates. Common invertebrates are likely to be present within the treelines and introduced shrub.

3.5. INVASIVE PLANT SPECIES

Consultation with rECOrd identified multiple records of montbretia (*Crocosmia × crocosmiiflora*), Himalayan balsam, Japanese knotweed and rhododendron (*Rhododendron ponticum*) within the search area.

No invasive species were identified during the site walkover. A cotoneaster species was identified, however this is not one of the cotoneaster species listed as invasive in the *Wildlife and Countryside Act 1981* (as amended).



4. ECOLOGICAL CONSTRAINTS AND MITIGATION

4.1. DEVELOPMENT PROPOSALS

It is understood that the site will be subject to commercial development, with a number of retail units and associated car parking proposed.

4.2. **DESIGNATED SITES**

The site is located within the Impact Risk Zone of the following sites:

- Brotherton Park and Dibbinsdale LNR and SSSI.
- The Mersey Estuary SPA, Ramsar site and SSSI.
- New Ferry SSSI.

Taking into account the reasons for their designations, it is deemed highly unlikely that the development will have an impact on the designated sites due to the distance present between the site and the designated sites and the anthropogenic barriers that lay between them. The site is not deemed functionally liked land. Due to the commercial nature of the development, an increase in the number of visitors to the site is deemed highly unlikely.

Furthermore, consultation with MAGIC Mapping identified that the proposed development does not meet the requirements that would justify further consultation with Natural England for the development to proceed.

4.3. VEGETATION AND HABITATS

The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats and birds. The amenity grassland offers the lowest value habitat. The treelines comprised the areas of highest value.

4.3.1. TREELINES

Some trees will require removal to facilitate development, and where this is needed, new landscape planting should be introduced to mitigate the loss. It is recommended that the landscape planting comprises native tree species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species. All planting should be from a trusted pest-free source and, where possible, be of local provenance.

The trees within the site, or adjacent to the boundary, to be retained, are to be appropriately protected during the construction phase. Temporary protective demarcation fencing will be used to protect the trees. The fencing must extend outside the canopy of the retained trees and must remain in position until the end of development to ensure protection is provided throughout the construction phase.

The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.



4.4. PROTECTED AND NOTABLE SPECIES

4.4.1. BREEDING BIRDS

The site was assessed as having value for passerine species within the tree lines and introduced shrub.

If any vegetation requires removal, it should be removed outside of the breeding bird season (March to September inclusive). If this is not possible, a nesting bird check will be undertaken by a suitably qualified ecologist up to 24 hours before works commence. If a nest, or nest in construction, is located then a stand-off distance will be maintained until the young have fledged. The ecologist will advise on suitable stand off and provide a toolbox talk to all site contractors regarding their working limits and legal implications.

Post-development planting, as detailed in Section 4.3.1, should be introduced to mitigate the loss of any trees removed to facilitate the development. Bird boxes could also be installed throughout the development to enhance the site's value for the species group.

4.4.2. BATS

Trees T48, T54, T72 and T74 were identified as having Low potential to support roosting bats. These trees are proposed for removal. The trees will require soft felling under the supervision of a bat licenced ecologist. Soft felling ensures any potential cavities are not cut through or damaged. The trees will be placed on the ground overnight so in the unlikely instance that bats are present, they can escape.

The site was also found to have value for foraging bats within the treelines. It is recommended that the proposed Lighting Plan maintains the treelines as dark areas. It is recommended that any security lighting during construction is appropriately placed to avoid being directed at any retained trees.

To reduce the potential lighting impacts for bats, the following recommendations are advised for the lighting strategy:

- Lighting should be pre-fixed on any proposed buildings, to ensure impacts on sensitive areas of the site, such as the treelines are diminished.
- Warm white tones are preferable to blue toned lights (3000k).
- LED lights are preferable as they produce minimal UV.
- To avoid light spill skyward, ensure lights face downward.
- Make use of vegetation to block light spill into dark areas.

Lighting should follow the protocols outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018) to minimise disturbance and sky-glow off site.

It is recommended that any planting within the site be of native fruiting/flowering species in order to enhance the site for foraging bats post-completion. Additionally, a series of bat boxes could be installed throughout the development to enhance the site's roosting value for the species group.



5. FURTHER SURVEYS

No further surveys are required to support a planning application.



6. OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

6.1. DESIGN ADVICE FOR BIODIVERSITY NET GAIN

The scheme should strive to achieve biodiversity net gain, as per "Biodiversity Net Gain; Good Practice Principles for Development" CIEEM, CIRIA, IEMA (2016). Full details of this and a calculation of net gain could be completed after detailed landscape plans have been prepared. It is likely that a 10% gain in habitats will be a mandatory requirement in the near future. To aid in the achievement of 10% net gain, it is recommended that the treelines on-site are retained.



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END OF REPORT



APPENDIX I PHASE 1 HABITAT PLAN

