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Ecological Appraisal

**LAND ADJACENT TO:
STABLES COTTAGE
BANGOR-ON-DEE
WREXHAM (COUNTY OF)
LL13 0DA**

ON BEHALF OF: CHESTER RACE COMPANY LTD

DATE: MARCH 2021

**REPORT BY: MATTHEW WHITEHEAD
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Executive Summary

The contents of this report detail the findings of a preliminary ecological appraisal (PEA) which was undertaken on land adjacent to Stables Cottage, Bangor-on-Dee, Wrexham (County Of), LL13 0DA. Ordnance Survey Grid Reference SJ38344415.

PJ Ecological Solutions was commissioned by Chester Race Company LTD, to undertake an ecological appraisal comprising of a desk study, an extended phase 1 survey and a preliminary roost assessment (PRA), to ascertain the potential impacts of the proposals, prior to seeking planning permission for the development of the site.

This is in accordance with TAN 5 (Technical Advice Note 5 – Nature Conservation and Planning) to enable an assessment of impacts and mitigation to negate impact as a consideration, material to the determination of planning requirements.

The proposals involve the installation of six holiday accommodation units upon a small field currently used as a recreation area.

The preliminary ecological appraisal (PEA) was undertaken on the 30th of March 2021 by Matthew Whitehead BSc (Hons) AMRSB, an experienced surveyor, under guidance from Paul Roberts (UCert), an experienced surveyor and a holder of licenses for both bats and newts.

Results

A desktop study was undertaken to identify the presence of statutory and non-statutory designated sites and habitats of importance located on or in the vicinity of the proposed site. The River Dee/River Dee SSSI/River Dee and Bala Lake SAC, which runs ~570m west of the site, was identified during the study, however due to the nature of the proposals and the size of the project, no impacts are expected upon the river or the favourable status of any other local habitats.

A search was undertaken for the presence of protected species records in the locality using freely available desktop resources (MAGIC; NBN atlas). A total of 27 records were sourced, including for common pipistrelle bat (*Pipistrellus pipistrellus*) ~680m west of the site, brown long-eared bat (*Plecotus auritus*), ~400m northeast of the site and grass snake (*Natrix helvetica*) ~330m north of the site. Due to the nature of the proposals and the size of the project, no impacts are expected upon the favourable local status of these species.

The PEA survey identified the following habitats within or immediate to the application site: amenity grassland mowed to a short sward; intact native species-rich hedgerow; post and wire and post and rail fencing; a concrete parking area; a tarmacked parking area/access driveway; and seven trees within or just beyond the site's north boundary.

Each of the trees was assessed individually, and given the absolute absence of roosting features, each was individually categorised as having negligible potential to support roosting bats. It is considered likely however, that these trees, the garden of the adjacent bungalow, and the hedgerow which forms part of the site's west boundary will all provide some foraging and/or commuting utility for bat species, and so should be protected from any additional light spill caused by the proposed development.

It is also considered likely that both the trees and hedgerows will support nesting birds during the season.

The survey identified no potential reptile, hazel dormouse, otter, or water vole habitat within the vicinity of the site. No evidence of badger activity was found within the 50m zone of influence of the development area. No other protected species were recorded in the vicinity of the site.

Potential Ecological issues

The main potential ecological constraints associated with the proposed development are (i) loss/disturbance to habitats, (ii) loss of features important to foraging or commuting bats, (iii) harm/loss of features important to nesting birds.

Mitigation and Recommendations

- Screening between and around each of the holiday accommodation units will be provided by a landscaping scheme outlined on the proposed plans (see Appendix 1). This scheme will be restricted to the planting of native plant species, which will provide additional invertebrate habitat and bird nesting and foraging opportunities within the site to those which exist at present.
- Given the limited area of species-poor amenity grassland which will be lost to the proposals, such a landscaping scheme is considered more than sufficient to offset any habitat loss caused by the development of the site, and likely constitutes a net biodiversity gain for the site.
- A lighting plan sympathetic to any bat species which may utilise the trees or hedgerows for foraging or commuting purposes should be incorporated into the final plans, to ensure no bats are affected by the proposals.
- There are no plans for the removal of any of the trees or hedgerows (or parts thereof). Should this change, the removal should be timed to avoid the bird breeding season, which runs from March to September (inclusive). This is to avoid adverse impacts to any nests present.
- Any trenches should be left with a sloping end or ramp to allow any badgers, hedgehogs or other animal that may fall in to escape. Holes should be covered overnight. Pipes should be capped off at night to prevent animals entering.

Enhancements

- The proposed extension of the existing hedgerow, to provide screening from the roadside, is considered to constitute a suitable and sufficient biodiversity enhancement measure given the nature of the proposals and size of the project.
- As an additional biodiversity enhancement prescription to the native species landscaping scheme and extension of the hedge, a barn owl tree nestbox may be installed upon a suitable erection to be installed within or in the vicinity of the site.

The findings of the assessment support the conclusions that the development will not be detrimental to protected species following the provisions set out in **Section 5** of this report.

Section 1

Introduction

- 1.1 P J Ecological Solutions were commissioned by Chester Race Company LTD to undertake the ecological appraisal to ascertain whether the proposed planning application would impact on protected species or habitats.
- 1.2 The ecological appraisal comprised of a desk study, an extended phase 1 survey and a preliminary roost assessment (PRA) on land adjacent to Stables Cottage, Bangor-on-Dee, Wrexham (County Of), LL13 0DA (hereafter referred to as 'the site'). The site is centred on approximate Ordnance Survey Grid Reference SJ38344415.
- 1.3 The findings of this report have been used to inform a planning application for the installation of six holiday accommodation units upon a small field currently used as a recreation area (see Appendix 1).
- 1.4 The aims of this report are to:
 - Determine the habitat types within and immediately adjacent to the application area
 - Identify both habitats and species constraints pertinent to the development proposals
 - Detail EPS licensing requirements, reasonable avoidance measures, and mitigation and compensation measures where necessary
 - Identify opportunities for the proposed development to provide enhancements and add to the biodiversity resource within the site

Section 2 Methodology

- 2.1 This section summarises the methodologies used during the ecological studies undertaken to inform the proposed development of the site, in line with the aims set out in **Section 1** of this report.

Desk Study

- 2.2 The desk study is an important part of the ecological assessment; it provides contextual information, such as the sites proximity to designated sites and known records of protected/notable species. This information is used to supplement the findings and support the recommendations and conclusions in Section 3 & 5 of this report.

Table 2.1: Summary of resources and information requested during the desk study (March 2021).

Organisation/Resource	Information Assessed (search distance from site boundary)
NBN and MAGIC	• Statutory designations (1km) • Non-statutory designations (1km) • Protected/UK BAP species records (1km)
NBN and MAGIC	• International statutory designations (1km) • National statutory designations (1km)

- 2.3 The search areas described above, and the resources used, are considered to be sufficient to assess the potential for the proposals to affect protected species and designations of conservation concern. All pertinent information obtained during the desk study is referenced within Section 3 of this report.

Phase 1 Survey

- 2.4 Habitats were assessed by using Phase 1 Habitat Survey techniques, which is a system for environmental audit widely used within the environmental consultancy field.
- 2.5 The main habitat types and dominant plant species present per habitat type were identified and summarised in Section 3 and illustrated using photographs included within this report.
- 2.6 The phase 1 survey of the site was undertaken by Matthew Whitehead BSc (Hons) AMRSB, an experienced surveyor, under guidance from Paul Roberts (UCert), an experienced surveyor and a holder of licenses for both bats and newts, on the 30th of March 2021, in clear and dry conditions. This time of year, is considered suitable for undertaking this kind of appraisal. The appraisal was therefore not considered to have been limited by seasonal or climatic factors.

Species Surveys

Bats (Preliminary Roost Assessment: Trees)

- 2.7 An assessment of all suitable trees located on or immediately adjacent to the site boundaries was undertaken from the ground by an experience surveyor, to determine their potential to support roosting bats.
- 2.8 All trees examined were categorised in accordance with Table 8.4 of "Bat Conservation Trust's Good Practice Guidelines" based on the number and types of features known to be suitable to support roosting bats. These features include cracks and splits in limbs, cavities, woodpecker holes, loose bark and thick-stemmed ivy. Where appropriate these features were assessed using binoculars and/or endoscopes.

Birds

- 2.9 The site and the surrounding habitats were assessed for their potential to support nesting birds.

Badgers

- 2.10 A thorough site walkover was undertaken to determine the presence of Badger. The surveyor had unrestricted access to the entirety of the site. Field signs such as setts, scrapings produced during foraging behaviour, latrines, paths and paw prints were searched for.

Dormice

- 2.11 A visual survey for the presence of suitable habitat (woodland/suitable hedges with good under-storey/shrub layer and a range of food plant species, such as hazel, bramble and honeysuckle) was carried out, to assess if hazel dormice (*Muscardinus avellanarius*) were likely to be present.

Reptiles

- 2.12 An assessment of the site's suitability to support reptiles was undertaken by an experienced surveyor. Key aspects considered included the vegetation structure, extent of the site, site aspect, connectivity, and historic content.

Section 3

Results

Site Location and Historic content

- 3.1 The application site is set in a field currently used for recreational purposes. It is situated in a rural position, across the road from the Bangor-on-Dee racecourse. A tarmacked parking area featuring a bungalow (with garden) lies immediately to the north of the field, while agricultural land, predominantly used for grazing livestock, lies to its east. The B5069 runs along the field's eastern boundary, separating it from the racetrack grounds. The field boundaries consist of a mixture of native species hedgerow, post and rail fencing, post-and-wire fencing, and immature deciduous trees. Good quality hedgerows connect the field to the Dorlan deciduous woodland, ~300m to the south, and the river Dee, ~600m west of the site. The approximate field boundary of the (in red) is depicted in Figure 3.1.

Figure 3.1: Aerial view of the site (field boundary shown in red).



Desk Study – Designated sites, species and habitats of importance

Statutory Designations

- 3.2 A desk-based study was undertaken to identify the presence of statutory and non-statutory designated sites and habitats of importance on or in the vicinity of the proposed site. These include:

International recognised statutory designations

- Special Protection Areas (SPAs)
- Special Areas of Conservation (SACs)
- Ramsar Sites

National recognised statutory designations

- Sites of Special Scientific Interest (SSSIs)
- National Nature Reserves (NNRs)

Local level designations

- Local Nature Reserves (LNRs)
- Wildlife Sites (WSs)

- 3.3 A review of information available from freely available resources online (MAGIC) and COFNOD identified the River Dee/River Dee SSSI/River Dee and Bala Lake SAC, which runs ~570m west of the site, however due to the nature of the proposals and the size of the project, no impacts are expected upon the river or the favourable status of any other local habitats. A map of the site and surrounding habitats can be found in figure 3.2

Figure 3.2: Map of the Site location relative to local designated sites.



Species Records

- 3.4 A search was undertaken for the presence of protected species records in the locality using freely available desktop resources (MAGIC; NBN atlas). A total of 27 records were sourced, including for common pipistrelle bat (*Pipistrellus pipistrellus*) ~680m west of the site, brown long-eared bat (*Plecotus auritus*), ~400m northeast of the site and grass snake (*Natrix helvetica*) ~330m north of the site. Due to the nature of the proposals and the size of the project, no impacts are expected upon the favourable local status of these species.

Phase 1 Habitat Survey

- 3.5 The Habitats within the proposed development site are summarised in table 3.1. A map of the habitats and features recorded on site can be found in figure 3.3.

Table 3.1: Summary of the habitats present

Target note	Phase 1 code	Habitat description and extent
1	J.1.2	Amenity grassland, dominated by perennial ryegrass and white clover.
2	J.2.4	A stock-proof post and wire fence.
3	J.2.1.1	An intact native species-rich hedgerow, dominated by hawthorn.
4	J.2.4	A post and rail fence.
5	J.4	A concrete parking area.
6	J.2.1.1	An intact native species-rich hedgerow, dominated by beech.

Figure 3.3: Phase 1 Map. Field boundary shown in red.



Target notes

- 3.6 **Figure 3.4/TN1:** Amenity grassland dominated by perennial ryegrass mowed to a short sward. Herbaceous species present include white clover, common daisy, creeping buttercup, dandelion, and dove's-foot crane's-bill.



- 3.7 **Figure 3.5/TN2:** The stock-proof post and wire fence, which runs the length of the site's east boundary.



- 3.8 **Figure 3.6/TN3:** An intact native species-rich hedgerow, dominated by hawthorn and reinforced with post and wire fencing. Other species present include holly, bramble, nettle, ivy, cleavers, garlic mustard and a stinking iris.



- 3.9 **Figure 3.7/TN4:** A post and rail fence, which runs the length of the section of the site's west boundary which is not covered by the hedgerow.



- 3.10 **Figure 3.8/TN5:** The concrete parking area. Some pioneer species have started to colonise the section which extends into the field, including *Festuca* spp., hairy bittercress, common mouse-ear, dandelion, and spear thistle.



- 3.11 **Figure 3.9/TN6:** An intact native species-rich hedgerow, dominated by beech. Other species include elder, wild plum, bramble, ivy, nettle, red dead nettle, cleavers and a stinking iris.



Species Surveys

Bats (Preliminary Roost Assessment)

- 3.12 A total of seven trees are situated along the northern boundary of the site (as shown in figures 3.8 and 3.9, above). They are all well connected to local habitats which will provide good foraging opportunities to bat species, however no crevices or other roosting opportunities of any sort were found in any of the trees during the assessment from the ground. Further, no vegetation cover was present on any of the trees, and all the trees were subject to some level of artificial lighting. Each of the trees was assessed individually, and given the absolute absence of roosting features, each was individually categorised as having negligible potential to support roosting bats.

Birds

- 3.13 Both the boundary hedgerows and the trees assessed are considered likely to support nesting birds during the season. The fruiting species within the hedgerow will also provide a good source of forage for many bird species.

Badgers

- 3.14 There are no setts present on the proposed development site and no signs of badger activity were found upon the site or within the 50m zone of influence. Further, the desk study identified no records of badgers within the 1km search area.

Dormice

- 3.15 No records of hazel dormouse (*Muscardinus avellanarius*) were retrieved from the desk study, nor were the habitats on site considered suitable to the needs of the species. Overall, the site is assessed as having negligible potential for hazel dormice.

Reptiles

- 3.16 The habitats on site and in the periphery comprise of improved grassland, native species-rich hedgerows, fencing, pavement, and some immature trees. There are no features suitable for supporting reptiles. Overall, the site is assessed as having negligible potential for reptiles.
- 3.17 No evidence of any other European Protected Species or Species of importance was found during the surveys.

Section 4

Evaluation

Habitats Evaluation

- 4.1 The amenity grassland which characterises the site is species-poor and does not constitute a habitat of ecological importance.
- 4.2 The proposed pathway to be installed, which will connect the holiday accommodation units with the existing tarmacked area, will be constructed of permeable matting. As such, it is not expected to affect the field in which it is installed, which itself is characterised by species-poor amenity grassland.
- 4.3 The location of the application site within the field in which it is set is such that none of the hedgerows, trees or other features of ecological value in the vicinity of the field will be affected by the proposals.

Species Evaluation

Bats

- 4.4 A total of seven trees are situated along the northern boundary of the site. Each of the trees was assessed individually, and given the absolute absence of roosting features, each was individually categorised as having negligible potential to support roosting bats. It is considered likely however, that these trees, the garden of the adjacent bungalow, and the hedgerow which forms part of the site's west boundary will all provide some foraging and/or commuting utility for bat species, and so should be protected from any additional light spill caused by the proposed development.
- 4.5 All species of British bat are listed as a European Protected Species (EPS) on Schedule 2 of the Conservation Regulations (Annex IV (a) to the Habitats Directive). This affords them strict protection under the Conservation of Habitats and Species (Amendment) Regulations 2010, making it an offence to deliberately capture, injure or kill a wild animal of an EPS; deliberately disturb wild animals of an EPS wherever they are occurring, in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or in the case of hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong; deliberately take or destroy the eggs of a wild animal of an EPS; or to damage or destroy a breeding site or resting place of a wild animal of an EPS.
- 4.6 Additional protection for bats is also afforded under the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place which is used for shelter or protection, or to obstruct access to said structure or place.

Birds

- 4.7 Both the trees and hedgerows along the site's boundaries are considered likely to support nesting birds during the season. The fruiting species within the hedgerow will also provide a good source of forage for many bird species.
- 4.8 There are no plans for the removal or modification of any of the trees or hedgerows (or parts thereof), however should this change, the works should be timed to avoid the bird breeding season, which runs from March to September (inclusive). This is to avoid adverse impacts to any nests present. Further survey work will not lead to any different recommendations than working under assumed presence and reasonable avoidance measures. For this reason, no further specific survey work is recommended.
- 4.9 There is some potential for the habitat to be enhanced for birds, through the planting of additional native species hedgerows, which will provide additional nesting and foraging opportunities.
- 4.10 All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), this makes it an offence to intentionally kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while it is in use or being built; take, damage or destroy the egg of any wild bird; or to have in one's possession, or control, any wild bird (dead or alive) or egg or any part of a wild bird or egg.

Badgers, Dormice, Reptiles and Other Wildlife

- 4.11 The habitats on site were assessed as having negligible potential to support hazel dormouse or common reptile species. No signs of badger activity were found within the site or within the 50m "zone of influence. Further, no records of these species were retrieved from the desk study.

Section 5

Mitigation and recommendations

Habitats

5.1 The proposals include a landscaping scheme (see Appendix 1), which will involve the planting of shrub species between and around each of the units, and the extension of the existing hedgerow along the full length of the field's west boundary. Both these proposals will be restricted to the planting of native plant species, which will provide additional invertebrate habitat and bird nesting and foraging opportunities within the site to those which exist at present. Species considered suitable for this purpose include:

- | | | |
|--------------|----------------|----------------|
| • Holly | • Bird cherry | • Field Maple |
| • Hawthorn | • Dog rose | • Crab Apple |
| • Blackthorn | • Guelder rose | • Denbigh Plum |
| • Elder | • Hazel | |

5.2 Given the limited area of species-poor amenity grassland which will be lost to the proposals, such a landscaping scheme is considered more than sufficient to offset any habitat loss caused by the development of the site, and likely constitutes a net biodiversity gain for the site. The extension of the existing hedgerow is further considered to constitute a suitable and sufficient biodiversity enhancement measure given the nature of the proposals and size of the project.

Species

Bats

5.3 There are no plans for the removal or modification of any of the trees or hedgerows (or parts thereof), however it is recommended that a suitable lighting plan be incorporated into the final plans, to ensure that bats utilising these features are not disturbed by any additional lighting installed as part of the proposals.

Birds

5.4 There are no plans for the removal of any of the trees or hedgerows (or parts thereof), however should this change, the removal should be timed to avoid the bird breeding season, which runs from March to September (inclusive). This is to avoid adverse impacts to any nests present.

5.5 In the event that vegetation removal is required within this time period, then a method statement incorporating reasonable avoidance measures is considered necessary. Inspections of any vegetation to be removed should be undertaken by a suitably qualified ecologist immediately prior to the start of any works, to determine the presence/absence of nests. Should any active nest be found, then a buffer zone of at least 5m should be created around the nest and maintained until all chicks have fledged before works can commence/continue.

- 5.6 Further survey work will not lead to any different recommendations than working under assumed presence and reasonable avoidance measures. For this reason, no further specific survey work is recommended.

Badgers, Hedgehogs and Other Wildlife

- 5.7 If the planned works onsite involves the creation of trenches and culverts, measures must be taken to ensure badgers, hedgehogs or other wildlife do not become trapped in the open excavations.
- 5.8 To ensure badgers, hedgehogs, and other wildlife do not become trapped in trenches, culvert or workings it is recommended that the works involves creation of sloping escape ramps, which may be achieved by edge profiling of trenches/excavations or by using planks placed into them at the end of each working day and any open pipe work greater than 150 mm diameter being blanked off at the end of each working day.

Barn Owl

- 5.9 As an additional biodiversity enhancement prescription to the native species landscaping scheme, a barn owl tree nestbox may be installed upon a suitable erection within the vicinity of the site. Given the surrounding habitats, it is considered that the area around the site is ideally suited to support this species. Such boxes can be constructed or purchased but must conform to at least the minimum specifications detailed in the document '*Barn owl boxes for trees*', produced by The Barn Owl Trust (2020), and should be installed according to the instructions found within the same document.

Section 6

Conclusions

- 6.1 Appropriate assessments have been undertaken to categorise the habitats present upon or in the vicinity of the proposed site and their utility to any protected/notable species.
- 6.2 Subject to the implementation of those recommendations set out within this report, no significant impacts upon protected/notable species present on site are considered likely to arise. It is also considered that by including some, or all, of the additional recommendations, the site could be enhanced for local wildlife post-development.
- 6.3 Appropriate care must be taken, as detailed, to ensure the works do not risk harm to bat or bird species. It is recommended that a lighting plan sympathetic to any bat species which may be affected by the proposals be incorporated into the final plans.
- 6.4 Screening between and around each of the holiday accommodation units will be provided by a landscaping scheme outlined on the proposed plans (see Appendix 1). This scheme will be restricted to the planting of native plant species, which will provide additional invertebrate habitat and bird nesting and foraging opportunities within the site to those which exist at present. Given the limited area of species-poor amenity grassland which will be lost to the proposals, such a landscaping scheme is considered more than sufficient to offset any habitat loss caused by the development of the site, and likely constitutes a net biodiversity gain for the site.
- 6.5 The proposed extension of the existing hedgerow, to provide screening from the roadside, is considered to constitute a suitable and sufficient biodiversity enhancement measure given the nature of the proposals and size of the project.
- 6.6 As an additional biodiversity enhancement prescription to the native species landscaping scheme and extension of the existing hedgerow, a barn owl tree nestbox may be installed upon a suitable erection to be installed within or in the vicinity of the site.

Appendix 1

Proposed Site Layout

