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**PROPOSED CARE HOME AND SUPPORTED  
LIVING ACCOMMODATION AT  
DARWIN DRIVE  
SHERWOOD ENERGY VILLAGE  
OLLERTON**

**HABITATS AND PROTECTED SPECIES REPORT**

**(September 2023)**

**REPORT REF: 2354 - PHA**



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## 1.0 INTRODUCTION

- 1.1 Paul Hicking Associates were commissioned by Millhouse Care to conduct a Habitat and Protected Species Assessment at land at Darwin Drive, Sherwood Energy Village, Ollerton, Nottinghamshire in order to assess the potential impact by the new residential development.

### **Previous Survey History for Protected Species and Habitats**

- 1.2 There is no previous survey history for the site.

### **Site Description**

- 1.3 Location

The development site is located and accessed off Darwin Drive within the Sherwood Energy Park, within the town of Ollerton on the edge of Sherwood Forest. This c0.489ha irregular shaped site comprises of part of a former hardstanding used for car parking and containing habitats comprising of modified and neutral grassland, dry ditch and scattered trees.

The development proposals comprise of the construction of a new care home for up to 75 residents and supported living accommodation for up to 30 residents with associated hard and soft landscaping.

- 1.4 Aerial and context photograph of the survey site.



## **2.0 METHODOLOGY**

2.1 This section describes how the essential evidence supporting this report was gathered and what equipment and techniques were used.

### **Desk Top Study**

2.2 A desktop study was carried out to determine the presence of any protected or notable species records or designated statutory or non-statutory sites of nature conservation value (such as Sites of Special Scientific Interest or Local Wildlife Sites) within a 1km radius of the site. This included the study of ordinance survey maps and aerial photographs including Google Earth and 'Where's the path' maps.

2.3 The MAGIC ([www.magic.gov.uk](http://www.magic.gov.uk)) and the NBN Gateway ([www.nbn.org.uk](http://www.nbn.org.uk)) were visited along with data obtained from the Nottinghamshire Biological and Geological Records Centre (NBGRC) to identify records of protected species within a 1km radius of the site.

2.4 The OS grid reference is SK 6615 6745 and the site can be found on: -

- OS Explorer 270 – Sherwood Forest
- OS Landranger 120 – Mansfield & Worksop

### **Topographical Survey**

2.5 A topographical survey was made available for the site (see Appendix 1). This survey was provided in an AutoCAD format and includes the position of all significant trees and hedgerows on or immediately adjacent to the site. The survey also includes all other landscape features such as the position of existing buildings and structures, pathways and access roads. Changes in ground levels were also recorded on the survey and are related back to known ordinance survey levels and co-ordinates.

### **Habitat Survey**

2.6 The terrestrial Habitat survey was carried out on the 17<sup>th</sup> August 2023 by experience surveyor and practical habitat manager Mr. P Hicking to determine the general ecological value of the habitats within the site. The surrounding area was also extensively walked to determine the sites connectivity to other adjacent habitats. A list of plant species was catalogued in accordance with habitat type and tested against Ratcliffe's Criteria. Habitats were mapped and classified in accordance with the Phase 1 Habitat Survey Methodology of the UK Habitat Classification (ukhab, 2021). The data was then checked against the data obtained from the desktop study to determine how the study site sits within the local network of habitats and its potential contribution.

## 2.7 Sherwood Forest Special Protection Area (SPA)

The survey site lies within the boundary of the Sherwood Forest Special Protection Area and therefore the study of this site has been extended to provide an assessment of any potential impact of the proposed development on breeding Nightjar (*Caprimulgus europaeus*) and Woodlark (*Lullula arborea*) within the proposed Sherwood Forest SPA in response to the following Natural England Recommendations;

- Natural England recommends that those Local Planning Authorities with and in close proximity to the Sherwood Forest region of Nottinghamshire, in the course of exercising their statutory functions, are mindful of the outcome of the Public Inquiry into the proposed Rufford Energy Recovery Facility (ERF) development and the matter arising as to whether the substantial breeding population of nightjar and woodlark in the Sherwood Forest Region warrants its classification as a Special Protection Area (SPA) under the EU Birds Directive, or at least its identification as a potential SPA (ppSPA).
- Although an SPA designation is yet to be determined for the Sherwood Forest Area Natural England suggest that as part of a risk-based approach to forward planning and decision making, development plans and proposals are accompanied by an additional and robust assessment of the likely impacts arising from the proposals on breeding nightjar and woodlark in the Sherwood Area. This should ideally cover the potential direct, indirect and cumulative impacts.

## 2.8 Weather Conditions

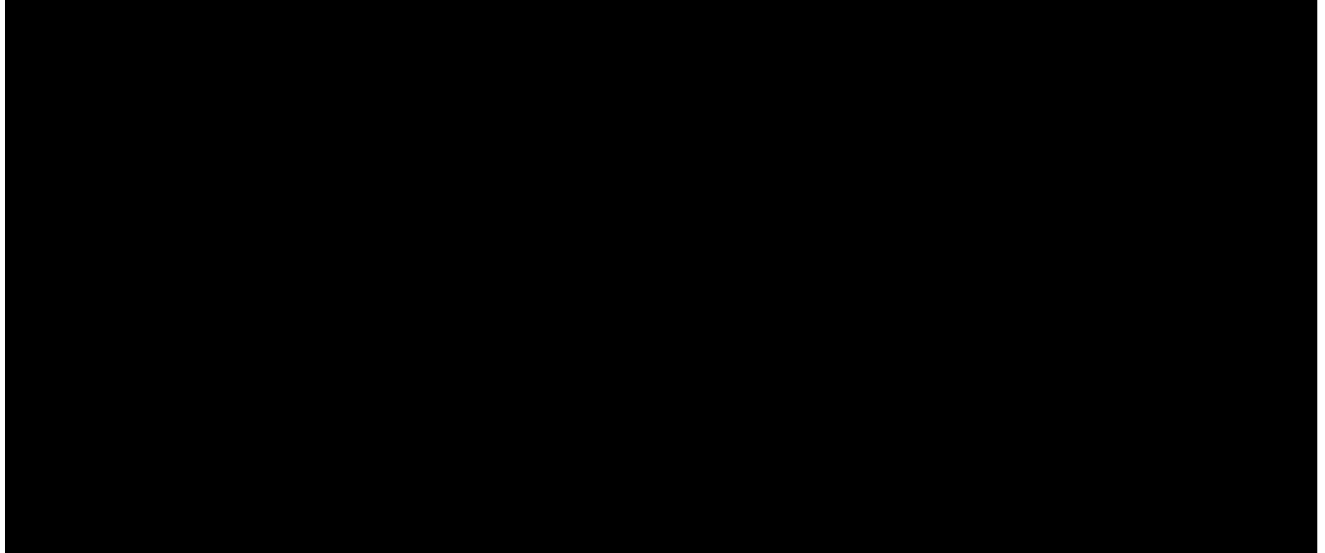
Table 1:

Date	Weather Conditions
17/08/2023	22°C Dry and sunny with light breeze 0-1, 10% cloud cover.

2.9 Invasive species – The site was thoroughly search for the presence of invasive species such as Japanese Knotweed (*Fallopia japonica*) or Himalayan balsam (*Impatiens glandulifera*).

## Fauna Survey

- 2.10 A protected species survey was conducted. Sightings or signs of protected species were recorded along with the suitability and connectivity of the habitats present to support protected species and are detailed as follows:



- 2.12 Mammals – There is potential for the presence of small mammals such as Hedgehog (*Erinaceus europaeus*) and signs were looked for including runways and droppings along with an assessment of available food source and habitat structure.

- 2.13 Birds – The site was fully assessed for its potential suitability to support breeding birds along with an assessment of resident bird populations. All site records for birds were taken from site visual observations or by call. Leica 8 x 42 binoculars were used to observe and identify bird species. All birds could be observed without the aid of additional optical equipment i.e. a telescope.

Using the British Trust for Ornithology (BTO) Common Bird Census survey techniques species were recorded to note their abundance along with particular attention to the presence of any protected or Local Biodiversity Plan (LBAP) species which would be likely to use these habitats. This data was compared with data obtained from the desktop study. Existing trees and ground vegetation were also inspected for their potential to support breeding birds.

- 2.14 Great Crested Newt – The surrounding area, where possible, was extensively walked to determine the presence of ponds and networks which may support this species. Data obtained within the desktop study was also reviewed to determine if this species had been recorded within the vicinity of the study site.

- 2.15 Amphibians Generally – The site and surrounding vicinity, where possible, was extensively walked to determine the potential for the presence of other amphibians such as Common Toad (*Bufo bufo*), Common Frog (*Rana temporaria*), Smooth (*Lissotriton vulgaris*) and Palmate Newt (*Lissotriton*

*helveticus*). Data obtained within the desktop study was also reviewed to determine if any of these species had been recorded within the vicinity of the study site.

2.16 Reptiles – The site and surrounding vicinity was extensively walked to determine the potential for the presence of reptiles such as Grass snake (*Natrix natrix*) and Slow-worm (*Anguis fragilis*). Data obtained within the desktop study was also reviewed to determine if any of these species had been recorded within the vicinity of the study site. The survey timing was also during the winter period when ground cover is at its minimum and therefore the potential habitat density along the river bank could not be assessed.

2.17 Invertebrates – are most effectively surveyed in May-August at the height of the flight period for most invertebrates. However, some invertebrates are active during the winter months including winter moth species. The study site was therefore assessed for its potential for the presence of invertebrates such as butterflies, bees, moths and Odonata (dragonflies and damselflies). Recommendation for the protection of habitats or introduction of enhancement features for invertebrates are based on this site assessment.

2.18 Bats:

Daytime Bat Survey

2.19 **Buildings.** There are no buildings within the development site.

**Trees.** An examination of the trees was undertaken to search for the presence of features which could be of potential for bats such as splits, cracks, rot holes, coverings of ivy, peeling bark or similar. The potential for the trees to support roosting bats will be ranked in accordance with the criteria set out in the publication entitled 'Bat Surveys – Good Practice Guidelines,' by the Bat Conservation Trust (BCT)

Tree(s) were initially assessed from the ground during the walkover survey. Any trees of interest were identified and recorded for further investigation. Tree assessments may produce one of several outcomes that are categorised below:

Roost: Direct or indirect evidence of bats was observed during the tree assessment. Ecologist involvement will be required that may require further survey work that should be undertaken at suitable times of the year. Additional surveys can be used to inform European Protected Species licence (EPS) from the local Statutory Nature Conservation Organisation (SNCO) if the proposed development is considered likely to cause an offence.

Category 1\* (High Potential): No evidence of bats was observed but the potential for bats is very good due to a variety of suitable features, good conditions and / or surrounding habitat or known bat roosts located within close proximity of the site. This category of trees



is generally considered capable of supporting larger roosts than Category 1. Ecologist involvement is required.

Category 1 (Moderate Potential): No evidence of bats was observed but the definite potential for bats due to a limited number of suitable features within the tree(s). This category of trees is generally capable of supporting single bats. Further ecologist involvement is considered likely to be required, and precautions should be taken including a method statement outlining best practice guidelines and procedures in case new evidence is found e.g. soft felling, avoidance wherever possible.

Category 2 (Low Potential): No evidence of bats was observed and potential for bats being present is considered unlikely. Crevices or cracks may be found but have limited potential for bats. Further ecologist involvement not considered necessary.

Category 3 (No Potential): No evidence of bats was observed and potential for bats being present is considered negligible. No further action is considered necessary.

Trees that have been identified as Roost, Category 1\* or Category 1 may require further investigation, including aerial tree surveys. Once trees have been aurally surveyed, they may be re-categorised as higher or lower risk.

## 2.20 **Survey Limitations.**

The information obtained from within the desk-top data search (i.e. biological data records) is not an exhaustive source of information and is depended upon any local or focused survey activity undertaken within the data search area. The absence or a negative result of a species does not indicate the absence of a protected species from the survey site or surrounding search area.

All areas and/or linear dimensions provided within this report are approximate taken from survey mapping or data provided. The survey appraisal is limited to the boundaries of the client ownership and where permitted public access routes and footpaths.

The Phase 1 Preliminary Ecological Appraisal was undertaken within the optimum habitat and activity (bats, birds, mammals, amphibians and reptiles), survey period April to mid-October (JNCC, 2010). All species lists provided should not be considered as exhaustive or a complete inventory and are those relative to establish the classification of the habitats type.

**3.0 RESULTS**

3.1 The section states the findings of the survey effort.

**Habitats.**

3.2 Maps published by the Ordnance Survey were consulted to ascertain the potential ecological connectivity of the area. Aerial photographs were also studied to detect possible navigable routes for between the study site and locations that might provide suitable foraging areas or potential alternative sites for roosting, nesting and hibernation. There are no UK Biodiversity Action Plan (UKBAP) habitats within the study site. Habitats outside the development site comprise of the following:

Outside the development site.

- Commercial development.
- Residential development.
- Public footpaths and access roads.
- Open park grassland and woodland.

3.3 There are no statutory designated sites or local wildlife sites of nature conservation within the survey site however, the following Site of Special Scientific Interest (SSSI) and Special Area of Conservation within close proximity and within 1km of the study site;

Table 2: Designated sites within 1km of the development site:

Name	Designation	Ref No.	Habitats
Birklands & Bilhaugh SAC	SSSI	1/91	An extensive remnant of the historic Sherwood Forest including excellent examples of the characteristic heathland and woodland communities. Interest:- Botanical, Odonata, Moth Beetles/bug, Amphibian and Reptile.
Sherwood Forest	ppSPA		
Wellow Park	SSSI		A fine example of semi-natural broad-leaved woodland. Interest:- Botanical.

3.4 The site comprises of the following habitats:

- g4 – modified grassland.
- g3 – neutral grassland.
- u1190 – sustainable urban drainage feature.
- w10 - scattered native species broadleaved trees.

u1c – artificial unvegetated, unsealed and sealed surface.

The locations of the above habitats within the study site are shown within Appendix 1.

**3.5 g4 – modified grassland.**

There are two grassland habitats present within the site, the first is modified grassland which forms the majority of landscape border, verge and ditch habitats and comprises of perennial rye grass (*Lolium perenne*) with occasional herb of red cover (*Trifolium pratense*), hawkbit (*Leontodon sp.*), ragwort (*Jacobaea vulgaris*), dandelion (*Taraxacum sp.*) and ribwort plantain (*Plantago lanceolata*). Outer edges along the southern verge grassland contain a dense sward of spearmint (*Mentha spicata*).

**3.6 g3 – neutral grassland.**

The second grassland habitat is located within the south-western corner of the site and seems to be an area intentionally planted to include a rich wildflower mix including evening primrose (*Oenothera biennis*), smallflower hairy willowherb (*Epilobium parviflorum*), field speedwell (*Veronica agrestis*), St John's wort (*Hypericum perforatum*), field parsley (*Aphanes arvensis*), Hawk's-beard (*Crepis sp.*), Chamomile (*Chamaemelum nobile*), white clover (*Trifolium repens*), black medic (*Medicago lupulina*), wild dandelion (*Taraxacum sp.*).

**3.7 u1190 – sustainable urban drainage feature.**

There are several shallow ditches present within the site which have been formed as part of a landscaping scheme for the car park. The ditches vary between a dry grassland within the southern half of the site comprising of a grass and herb mix of perennial rye grass (*Lolium perenne*), narrow leaf plantain (*plantago lanceolata*), red fescue, (*Festuca rubra*), common bent (*Agrostis capillaris*), sedge (*Corex sp.*) broom (*Cytisus scoparius*), bird's-foot trefoil (*Lotus corniculatus*) and a wet grassland comprising of great reedmace (*Typha latifoli*), common reed (*Phragmites australis*), rosebay willowherb (*Chamaenerion angustifolium*) along with scattered trees and shrubs of willow (*Salix sp.*), hawthorn (*Crataegus monogyna*), silver birch (*Betula pendula*) and dog rose (*Rose canina*). The ditch habitats do not have a formal drainage outlet or outfall to a drainage network.

**3.8 w10 – scattered native trees.**

Scattered native trees comprise of cherry (*Prunus avium*), willow (*Salix sp.*), hawthorn (*Crataegus monogyna*), silver birch (*Betula pendula*) and dog rose (*Rose canina*) and are planted within the urban drainage features and along the site boundary.

**3.9 u1c – artificial unvegetated, unsealed and sealed surface.**

This habitats forms the surface of the car parking areas and the entrance road and comprises of a stoned/gravel surface and tarmac road surface. There are large stone boulders within the outer edges of and forming barrier access the car parking zones

## Fauna.

- 3.11 **Mammals Generally** – The site is relatively open with good connectivity to the wider ecological network. The surrounding area has good connectivity for hedgehog and a wider range of small mammals and this is supported by biological records for hedgehog as shown in table 3 below;

Table 3: The following species have been recorded within 0.5km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
<b>Mammals</b>		
West European hedgehog	<i>Erinaceus europaeus</i>	Latest recorded 2022

## 3.12 Birds.

A total of 9 species were recorded during the survey including two red listed species and one amber listed species (at least one third of the species recorded present are of conservation concern). A migrant wheatear was present within the site during the survey. This is likely to be a post-breeding migrant. No ground nesting birds are present within the survey site but ground nesting Skylark are present within the grassland nearby to the survey site. The site is considered sub-optimal for nesting barn owl (*Tyto alba*) as there are no structure of building to support breeding. Open grassland and ditches are optimal habitat for foraging. There are biological records for barn owl within the Ollerton area.

The total list of species recorded relative to the study site are included within table 4 and relevant county records within table 5 below.

Table 4: The following species were recorded within the study site and surrounding area.

English Name	Scientific Name	No.	Details
<b>Birds</b>			
Wheatear	<i>Oenanthe oenanthe</i>	1	AMBER LISTED

Blackbird	<i>Turdus merula</i>	1	
Carrion crow	<i>Corvus corone</i>	1	
Wood Pigeon	<i>Columba palumbus</i>	1	RED LISTED
Feral pigeon	<i>Columba livia</i>	20	
Starling	<i>Sturnus vulgaris</i>	2	RED LISTED
Magpie	<i>Pica pica</i>	1	
Pied wagtail	<i>Motacilla alba</i>	2	
Goldfinch	<i>Carduelis carduelis</i>	2	

Table 5: The following species were recorded within 1km of the study site and surrounding area.

English Name	Scientific Name	No. of Records/Most recent Date
<b>Birds</b>		
Song thrush	<i>Turdus philomelos</i>	Latest record 2015
Mistle thrush	<i>Turdus viscivorus</i>	Latest record 2015
Swift	<i>Apus apus</i>	Latest record 2015
Linnet	<i>Delichon urbicum</i>	Latest record 2015
Lapwing	<i>Vanellus vanellus</i>	Latest record 2015
Barn owl	<i>Tyto alba</i>	Latest record 2015
Fieldfare	<i>Turdus pilaris</i>	Latest record 2015
Redwing	<i>Turdus iliacus</i>	Latest record 2015
Wren	<i>Troglodytes troglodytes</i>	Latest record 2015
Blackcap	<i>Sylvia atricapilla</i>	Latest record 2015
Starling	<i>Sturnus vulgaris</i>	Latest record 2015
Tawny owl	<i>Strix aluco</i>	Latest record 2015
Turtle Dove	<i>Streptopelia turtur</i>	Latest record 2015
Siskin	<i>Spinus spinus</i>	Latest record 2015
Woodcock	<i>Scolopax rusticola</i>	Latest record 2015
Goldcrest	<i>Regulus regulus</i>	Latest record 2015
Dunnock	<i>Prunella modularis</i>	Latest record 2015
Green woodpecker	<i>Picus viridis</i>	Latest record 2015
Magpie	<i>Pica pica</i>	Latest record 2015
Chaffinch	<i>Fringilla coelebs</i>	Latest record 2015
Pheasant	<i>Phasianus colchicus</i>	Latest record 2015
Grey partridge	<i>Perdix perdix</i>	Latest record 2015
House sparrow	<i>Passer domesticus</i>	Latest record 2015
Tree sparrow	<i>Passer montanus</i>	Latest record 2015
Great tit	<i>Parus major</i>	Latest record 2015
Blue Tit	<i>Cyanistes caeruleus</i>	Latest record 2015

Long-tailed tit	<i>Aegithalos caudatus</i>	Latest record 2015
Pied wagtail	<i>Motacilla alba</i>	Latest record 2015
Woodlark	<i>Lullula arborea</i>	Latest record 2015
Swallow	<i>Hirundo rustica</i>	Latest record 2015
Chaffinch	<i>Fringilla coelebs</i>	Latest record 2015
Kestrel	<i>Falco tinnunculus</i>	Latest record 2015
Yellowhammer	<i>Embriza citrinella</i>	Latest record 2015
Carrion crow	<i>Corvus corone</i>	Latest record 2015
Rook	<i>Corvus frugilegus</i>	Latest record 2015
Woodpigeon	<i>Columba palumbus</i>	Latest record 2015
Stock dove	<i>Columba oenas</i>	Latest record 2015
Swift	<i>Apus apus</i>	Latest record 2015
Skylark	<i>Alauda arvensis</i>	Latest record 2015
Whitethroat	<i>Curruca communis</i>	Latest record 2015

The above records show the presence of a community of species associated with the habitats within the survey site and the surrounding area.

**Sherwood SPA** Nightjar (*Caprimulus europaeus*) and Woodlark (*Triturus cristatus*) – The grassland habitats within the survey site are considered sub-optimal habitat for Nightjar as this species requires heathland and woodland clear-fell habitats for display flight, feeding and ground nesting. Woodlark require areas of short, sparse naturally developed turf with a high abundance of invertebrate prey on bare ground. Habitats within the site provide some foraging for woodlark but are sub-optimal for breeding as the site does not provide the tussock habitat cover to form a nest. No woodlark were observed present during the survey. There are biological records for Nightjar and Woodlark within the surrounding area and these are known and well recorded observation sites. There are no biological records for Nightjar or Woodlark within the survey site but there are records for woodlark within the immediate surrounding vicinity of Ollerton.

- 3.13 **Great Crested Newt** (*Triturus cristatus*) – There are no suitable breeding habitats (i.e. ponds), present within the site. No ponds were identified from the OS maps within 500m of the boundary. There are no biological records to support the presence of newts within 1km of the site. The site is enclosed by roads and pathways, connectivity is considered sub-optimal for Great created newt.
- 3.14 **Amphibians** – The ditch habitats provide some optimal habitat for the dispersal of amphibians such as common frog and toad may be present and this is supported by local biological records for common frog and toad within 0.5km with the latest record in 2022. No amphibians were found within the survey site.

- 3.15 **Reptiles** – The open grassland habitats with stone ground and large boulders provide habitat for reptiles. No reptiles were found within the site however, the potential presence of reptiles is supported by biological records for common lizard (*Zootoca vivipara*) to the north east of the energy park in 2023.
- 3.16 **Invertebrates** – The habitats present within the site offer some potential for range of common invertebrates including butterflies and bees and where compacted the gravel and stone ground structure offers potential as an hibernacula for invertebrates. A small range of individual butterfly were recorded during within the site including, Small white (*Pieris rapae*), Speckled wood (*Pararge aegeria*) and Peacock (*Aglais io*) associated with the field margin and hedgerow habitats. There are no data records for the survey site however, data records indicate the presence of 14-spot ladybird (*Propylea quatturdecimpunctata*), harlequin ladybird (*Harmonia axyridis*), tawny and chocolate mining bee (*Andrena fulva and scotica*), painted lady (*Vanessa cardui*) and red admiral (*Vanessa atalanta*).
- 3.17 **Invasive species** – There are no invasive non-native species within or adjacent to the survey site.
- 3.18 **Bats** – Trees within the survey site are young to semi-mature in age range and structure and are without defects or features which could support roosting bats and are therefore classed at **Category 3** potential for roosting bats. Habitats within the site are more associated with commuting and foraging habitats for bats.
- 3.19 There biological record for at least 4 species of bat which have been record to be associated within 1km of the survey site.

Table 6: The following species were recorded within the study site and surrounding area;

English Name	Scientific Name	No. of Records/Most recent Date
<b>Bats</b>		
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Latest recorded 2023
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Latest recorded 2023
Brown long-eared	<i>Plecotus auritus</i>	Latest recorded 2023
Noctule	<i>Nyctalus noctula</i>	Latest recorded 2023

#### 4.0 PLANNING AND NATURE CONSERVATION POLICY

4.1 This section provides an overview of National Planning Policy Framework (NPPF) adopted by Newark and Sherwood District Council for policies in relation to nature conservation and biodiversity.

##### **The Five Point Approach.**

4.2 The National Planning Policy Framework (NPPF 2021) describes the Government's national policies on the protection of biodiversity [and geological] conservation through the planning system. The NPPF 2021 emphasises the need for planning authorities to ensure that the potential effects of planning decisions on biodiversity conservation are fully considered. A five-point best practice approach to the assessment of such effects within the development control process is recommended:

1. **Information** – gathering a sufficient evidence base on which to make sound planning decisions.
2. **Avoidance** – adverse effects on habitats and species should be avoided where possible.
3. **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects.
4. **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm.
5. **New benefits** – many planning decisions present the opportunity to deliver enhancements for habitats or species.

The assessment of ecological effects set out within this report is based on the above five-point approach, where appropriate.

##### **Newark and Sherwood District Council Core Policy.**

4.3 The District of Newark and Sherwood contains a range of habitats each supporting its own characteristic species. The district also has a number of sites which receive specific protection because of their national or county/ regional importance for nature conservation.

4.4 The United Kingdom Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP), list a series of Priority Habitats of conservation concern that are considered to be priorities for nature conservation. **The following UKBAP and LBAP habitats and species of concern are present within or adjacent to the study site;**

Native species neutral grassland and sustainable urban drainage features;

Native species scattered trees;

Common and birds of conservation concern i.e., swift (*Apus apus*)



## 5.0 ASSESSMENT

### Constraints On The Survey Information.

- 5.1 Many species, including some which are protected by law, are highly mobile and may colonise or utilise a site at any time. Also, habitats may change over time in terms of their ecological value and the survey results reported here will therefore become less reliable as time progresses.
- 5.2 The site was assessed during the visit to establish the potential presence or absence of protected species. No continual survey monitoring (other than breeding birds), has been undertaken therefore a lack of evidence of a protected species at this time does not necessarily indicate an absence of the species.

### Potential impacts.

- 5.3 **Designated sites** – there are no designated sites within the survey site. The designated sites outlined within this report are sufficiently separated from the survey site by distance, urban and commercial development and road network. The proposals with therefore have no direct physical impact upon designated sites. Current threats and impacts upon the ppSPA and SSSI habitats include climate change and air quality, restricted habitats through the presence of surrounding farmland and development, restricting and limiting the expansion of the SSSI habitats, reduced air quality through the use of insecticides and soil disturbance and pressure from tourism and footfall within the forest.

The proposals outlined are for a care and supported living facility and therefore is unlikely to contribute towards the impacts outlined above.

- 5.4 **Control of dust** – all contractors have a duty of care to control dust as part of their health and safety under the Control of Substances Hazardous to Health (COSHH). The localised sandy soils will be of particular concern during the initial site-strip phase of any approved development.

### Habitats.

g4 – modified grassland.

g3 – neutral grassland.

u1190 – sustainable urban drainage feature.

w10 - scattered native species broadleaved trees.

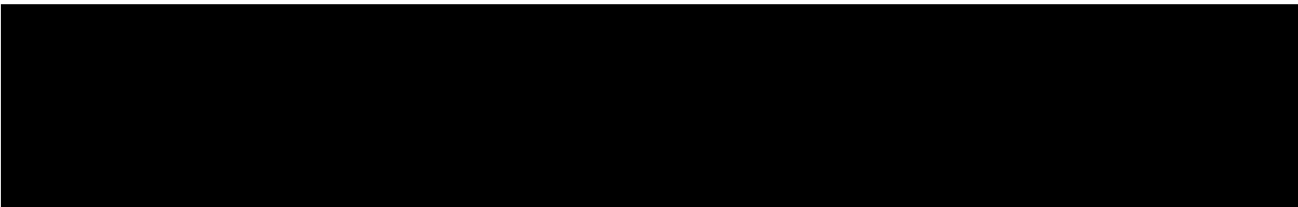
u1c – artificial unvegetated, unsealed and sealed surface.

- 5.5 **g4 – modified grassland** – This habitat is considered to be **poor** in value for biodiversity as it is regularly cut to a short sward maintaining a low level of species diversity however, it does form the main structure of the urban drainage features. It is recommended that the development retain this habitat and where possible enhance towards a greater species diversity. New modified grassland

habitats will most likely be introduced as they will form amenity grassland/lawns within the formal landscaping.

- 5.6 **g3 – neutral grassland** - This habitat is **moderate** in value for biodiversity due to the species diversity present and its ability to support a range of grass and herb species. The development should aim to retain as much of this habitat as possible and where possible aim for the provision of additional neutral grassland habitats.
- 5.7 **U1190 – sustainable urban drainage feature** - This habitat is **moderate** in value for biodiversity due to the species diversity present. The development should aim to retain as much of this habitat as possible and provide new within the landscaping design proposals.
- 5.8 **w10 – scattered native broadleaved trees** - This habitat is currently **moderate** in value for biodiversity due to the age range and structure of the young to semi-mature trees present within the site. Where possible trees are to be retained. Young trees and with care may have potential to be transplanted. Where trees are to be removed they are to be replaced with new trees on a 2:1 basis.
- 5.9 **u1c – artificial unvegetated, unsealed and sealed surface** – The majority of this habitat will be lost to the development and new unsealed and sealed surfaces are likely to be introduced. The creation of new sealed and unsealed surfaces should be kept to a minimum to maximise the potential to retain and provide new native species habitats.

#### **Fauna.**

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- 5.11 **Mammals Generally** – The site has the potential for the presence of small mammals and therefore precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.12 **Birds** – A community of common and summer migrant bird species were recorded present including two red listed species and one amber listed species of conservation concern

To avoid conflict with the legislation for breeding birds habitat removal must be undertaken outside the bird breeding season (March-September). If habitat clearance is unavoidable during the breeding season then the following action should be undertaken:

Prior to the commencement of works, the area including any affected vegetation, should be thoroughly searched for nesting birds. If a bird's nest is found then it should remain undisturbed

and a 5m buffer zone should be created around the nest including above and below it. The zone around the nest site is to remain free of construction activities and disturbance until the young have fledged and left.

All existing retained habitats are to be managed and where possible enhanced including where possible the formation of new hedgerows. New habitat planting is to be carefully designed to provide a food source for birds and density for the provision of nest and roost sites to replace those lost or are currently absent. due to the development.

Sherwood SPA - The presence of nightjar considered highly unlikely as the survey site does not contain the required habitats associated with this species. The development will therefore not impact upon this species.

The grassland and bare ground provide some potential foraging habitat for Woodlark. No birds were recorded during the survey but this does not exclude the potential presence in forthcoming seasons and therefore an awareness should always be maintained. Woodlark can be curious birds and if on passage may investigate any piles of sand or earth which have been deposited within a building site and make use of these for nesting. It is advised that any builders sand or earth piles are covered over when not in use.

- 5.13 **Great Crested Newt** – The site is not considered to offer potential to support GCN and no further survey work is recommended.
- 5.14 **Reptiles** – The habitats present within the development site provide some potential for reptiles but this may be limited due to the absence of safe passage to and from the site however, precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.15 **Amphibians** – common amphibians such as frog and toad are likely to be present along the hedgerow boundaries. The proposed development will not impact onto existing habitats and features however, precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.16 **Invertebrates** – Overly underestimated in most mitigation work, invertebrates are vital to the health of habitats and provide a means of food source to a variety of species and for some there has been a decline in their number, most notably bee populations. Based on the survey work carried out so far existing habitats have a capacity to support a limited range of invertebrate populations. Habitats lost to accommodate the new development are to be replaced and any retained habitats are to be enhanced with new native species planting of local provenance carefully selected to attract and support invertebrates.

- 5.17 **Invasive species** – There are no invasive non-native species within the site and no further survey work is required.
- 5.18 **Bats** – There are no features within the survey site which could support roosting or hibernating bats and therefore activity is restricted to foraging and commuting. The proposed development offers the opportunity to incorporate permanent roost features for bats within each of the new buildings.
- 5.19 The design of external lighting should be carefully considered to avoid impact on existing trees and potential flight zones and is to be designed in accordance with the Bat Conservation Trust guidelines for external lighting.
- 5.20 **DATA RECORDS** – The information gathered from the various sources available mainly focused on known local wildlife sites. These sites are well visited and are common areas of study. The study site is a private site and not commonly available for study. The absence of data for this site does not preclude the assumption of the absence of species and every effort has been made to provide a thorough understanding of the sites availability for species. The data obtained has therefore been used to provide an indication of species present within the surrounding area, however this has limitations due to date of submission and should therefore be used to guide the direction of the area of study and potential update and reconfirm presence or absence.

**Legislation.**

- 5.21 **Amphibians (Common Species)** – Common amphibian species (i.e. common frog, common toad, smooth newt and palmate newt) are afforded partial legal protection under UK legislation, i.e. Schedule 5, Section 9 (5) of the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way (CROW) Act 2000. This legislation prohibits:

Sale;  
Transportation; and  
Advertising for sale.

- 5.23 Birds – The bird breeding season generally lasts from early March to September for most species. All birds are protected under the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way (CRoW) Act 2000. This legislation makes it illegal, both intentionally and recklessly to:
- Kill, injure or take any wild bird.
  - Take, damage or destroy the nest of any wild bird while it is being built or in use.
  - Take or destroy the eggs of any wild bird; and
  - Possess or control any wild bird or egg unless obtained legally.
- 5.24 Birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are afforded additional protection, which makes it an offense to disturb a bird while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such bird.
- 5.25 Great Crested Newt – Great Crested Newt and their habitat are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way (CRoW) Act 2000 and The Conservation of Habitats and Species Regulations 2010 (as amended). This makes it an offense to kill, injure or disturb great crested newts and destroy any place used for rest or shelter by a newt. The great crested newt is also listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. If a development activity is likely to result in disturbance or killing of a great crested newt, damage to its habitat etc, then a licence will usually be required from Natural England.
- 5.26 Reptiles – There are six native species of reptiles in the UK, including slow-worm, common lizard, grass snake and adder, smooth snake and sand lizard, which are afforded varying degrees of protection under UK and European Legislation. Slow-worm, viviparous/common lizard, adder and grass snake are protected under Schedule 5, Section 9 (1 and 5) of the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way (CRoW) Act 2000 against deliberate or reckless killing, injuring and sale.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### Habitats and Protected Species.

- 6.1 The development site is not subject to any statutory or non-statutory nature conservation designation. No designated sites will be directly or indirectly impacted by the proposed development. A further Habitats Regulations Assessment (HRA) is to be provided in-line with the development proposals.
- 6.2 The site comprises of unsealed stone and gravel surface, large stone boulders, grassland and drainage features with trees shrubs with some potential to support breeding birds along with the potential presence for amphibians and reptiles and therefore precautionary measures must be in place prior to and throughout the construction phase of the development for the protection of species and control of dust. This may be secured by a suitably worded planning condition for the implementation of a Construction Ecological Management Plan (CEMP) and Reasonable Avoidance Measures Statement (RAMs).
- 6.3 All retained trees and habitats are to be protected in accordance with BS 5837 ; 2012 during the construction period of the development and a subsequent management plan is to be put in place to maintain the health, structure and density of this habitat.
- 6.4 The following is a guide is also recommended for the protection of mammals, amphibians and reptiles during the construction works.

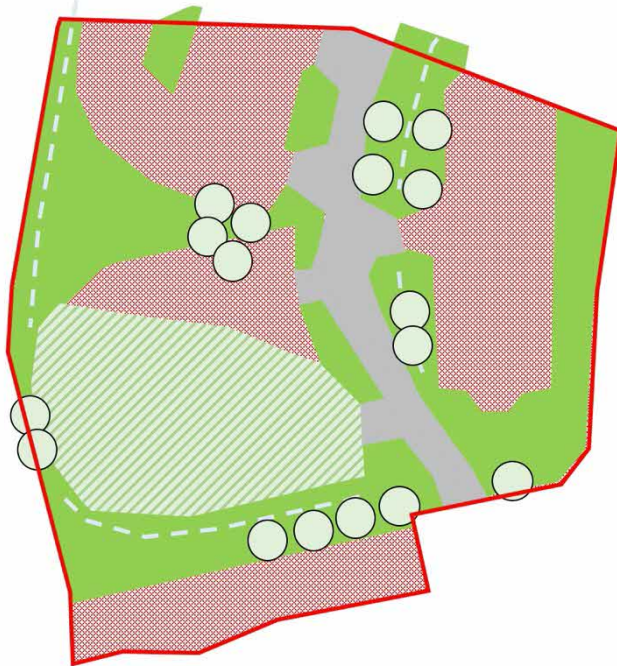
No foundation work should be left uncovered, overnight or for any length of time to avoid mammals becoming trapped in foundation or services trenches. Where this is unavoidable then trenches should be left with a sloping end or ramp to allow any animal that may fall in to escape.

Pipes over 150mm in diameter should be capped off at night to prevent animals entering.








The site is to be recheck for the presence of hedgehog if the project is delayed at any time.

- 6.5 Where habitats are to be lost the development should seek to include new species rich habitats (including new hedgerow planting), which vary in structure and density and to comprise of native species of local provenance (using recorded habitats and species within this report as a base-line guide). The development should aim to maximise the retention of existing habitats and the creation of new habitats that aim to achieve a biodiversity net gain (minimum 10%), proven and supported by the DEFRA Metric 4.0 calculation method. The development should also aim to include permanent features for nesting birds, and roosting bats, gaps below fences to allow passage of small mammals such as hedgehog. This may be secured by a planning condition for the implementation of a Landscape Ecological Management Plan (LEMP) detailing the type, quantity and location of each feature and habitat type.

APPENDIX 1 – HABITATS PLAN



Key

-  Site boundary
-  g4 modified grassland
-  g3 neutral grassland
-  u1c artificial unvegetated, unsealed surface
-  Sealed surface
-  w10 scattered tree
-  u1190 sustainable drainage feature

**APPENDIX 2 - SITE PHOTOGRAPHS**





