



Elite Ecology

Passionate about Ecology

**12 Riley Lane,
Kirkburton**



Preliminary Ecological Appraisal

May 2019

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0. Executive Summary

This report has been prepared at the request of Mr. Adam Knight (Simply Architectural Ltd) on behalf of Mr. Robert Napier (Proprietor). Elite Ecology were commissioned to undertake a Preliminary Ecological Appraisal at the land at 12 Riley Lane, Kirkburton, Huddersfield, Yorkshire, HD8 0RY (SE 19603 12798). This survey effort involved both a desktop study and field survey being undertaken.

Under the current proposals, one residential dwelling will be constructed on the parcel of land. This will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site.

WYES were commissioned to carry out an ecological data search of all protected species and sites recorded within a 2km radius of the site. No records lay on the proposed re-development site itself.

The preliminary ecological appraisal survey revealed numerous habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within Appendix D. The following habitats were recorded on site (in habitat code order):

- A3.3 – Mixed Scattered Trees
- J1.2 – Amenity Grassland
- J3.6 – Buildings

No designated sites that were revealed by the Ecological Data Search provided by WYES fell on the proposed re-development site itself. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

Birds: Due to the trees potential to support roosting bats, two activity surveys are required during the bat activity survey season of May to September, with most surveys requiring completion before the end of August

Birds: All tree removal should be undertaken outside of the bird breeding season (the bird breeding season runs from March to August, inclusive). If vegetation is required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this vegetation is removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981.

Hedgehogs: If the works are undertaken between the 1st November and 31st March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site.

Herpetiles: Due to the potential features on site, it is recommended that site supervision is undertaken during the removal of the dry stone walls, trees, ornamental shrubs and compost heap. The compost heaps should be translocated to elsewhere on site rather than being lost. If any great crested newts (*Triturus cristatus*) are encountered during site supervision, all works must stop and further advice and/or licensing sought. A method statement document should be produced and followed.

Site Enhancements

For the proposed site enhancements, please see section 5.4 of this report.

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1 Introduction

1.1 Report rationale

This report has been prepared at the request of Mr. Adam Knight (Simply Architectural Ltd) on behalf of Mr. Robert Napier (Proprietor). Elite Ecology were commissioned to undertake a Preliminary Ecological Appraisal at the land at 12 Riley Lane, Kirkburton, Huddersfield, Yorkshire, HD8 0RY (SE 19603 12798). This survey effort involved both a desktop study and field survey being undertaken.

The main purpose of this assessment was to identify the broad habitats (as stated in the JNCC Phase 1 Handbook) and the flora species present within the survey area, with any further evidence of protected species usage and/or features of potential ecological interest also included. The field survey was carried out on the 30th April 2019 by Mr. Richard Millington (BSc (Hons), ACIEEM) and Mr. Matthew Hodgson (L3DCM).

1.2 Site description and works

The site is situated in the rural Yorkshire village of Kirkburton and is located approximately 5.1 miles from the city centre of Huddersfield. The population of Kirkburton in the 2011 Census was 4,299.

The site itself measures approximately 0.04ha and is set in a well maintained private garden. The boundary is tree lined, with a dry stone wall running along the western side, with the internal area made up mainly of amenity grassland, ornamental planting and a stone footpath leading you through the site. The other features within the site are some faux stone arch ruins. The area is surrounded to the north by playing fields, a woodland corridor along the eastern boundary, a housing development to the south and agricultural land to the west. The habitats identified on and around the site could all be utilized by protected species. Photographs of the site are found within Appendix E.

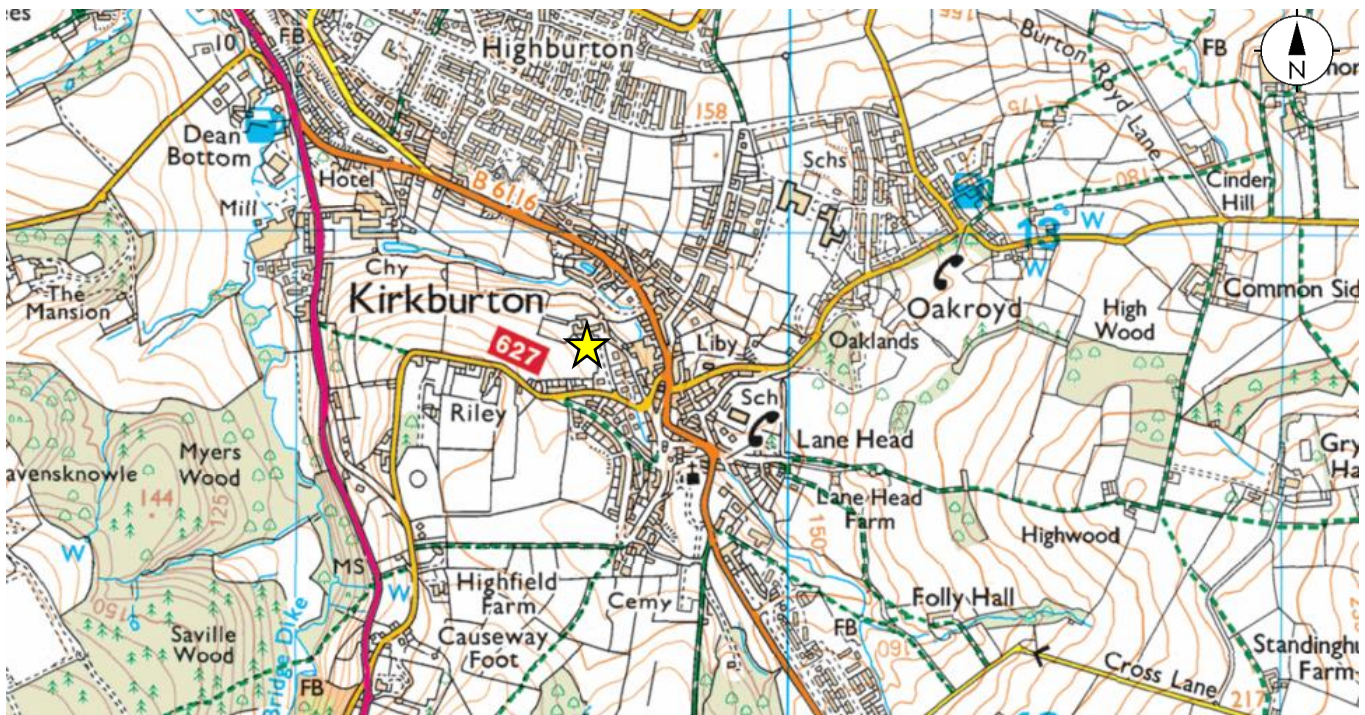
Within the wider landscape, further habitats are present. These come in the form of additional structures (and their associated gardens/yards), scattered trees and parkland. The habitats that surround the site also have the potential to be utilized by a variety of protected species.

Under the current proposals, one residential dwelling will be constructed on the parcel of land. This will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site.

Figure 1: An aerial map showing the location of the land proposed for development at 12 Riley Lane, Kirkburton (yellow star) in relation to some of the local landscape.



Figure 2: An OS map obtained from Bing showing the 12 Riley Lane, Kirkburton (yellow star).



2 Survey Methodology

2.1 Desktop Survey

A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

The local records centre were contacted to provide data on all protected species and designated sites within 2km of the proposed development site. West Yorkshire Ecology Service (WYES) were the relevant local record centre for this project.

2.2 Field Survey

A Preliminary Ecological Appraisal (previously referred to as an Extended Phase 1 Habitat Survey) was carried out using the method outlined in the JNCC Handbook for *Phase 1 Habitat Survey: a technique for environmental audit (2010)*. This method aims to map and describe the broad habitat types and notable features present on the surveyed site.

As part of the field survey, the floral species will be identified and noted down. This will consider the dominant, abundant, frequent, occasional and rare (DAFOR) species within each habitat on the survey site. The impacts of the proposed development scheme will be assessed by this report.

Each habitat will be assessed for the presence and/or the potential presence of protected species. The impacts of the proposed scheme of works on all potential protected species on site will be assessed. From this, either remedial action or recommended phase 2 presence/absence surveys will be devised.

Some of the classification codes and colours listed within the JNCC handbook may have been slightly modified for this project.

Habitat Surveys can be carried out at any time of the year, with the optimal time period falling between the months of April through until September. This survey was carried out in April 2019, which is inside of the optimal time period for flora surveys. Elite Ecology feels confident that the majority of the floral species located on the site were competently identified during the survey effort. In addition to this, Elite Ecology feels confident that this report reflects an accurate representation of the site's suitability for protected species to be present.

All sites surveyed by Elite Ecology will be run against the relevant Local Wildlife Site Criteria to assess whether or not they meet the required standards.

3 Desktop Survey Results

3.1 Statutory Sites

The ecological data received from WYES confirmed the presence of no statutory protected sites (e.g. LNR, SSSI, SPA, SAC or Ramsar) within the 2km search radius from the site.

3.2 Non-Statutory Sites

The ecological data received from WYES confirmed the presence of 35 non-statutory protected sites within 2km of the site. The non-statutory sites are Sites of Importance for Nature Conservation (SINC), Sites of Local Importance for Nature Conservation (SLINC) and Potential Sites of Interest (PSI). These sites are as follows:

- Allen Wood
- Birks Wood
- Carr Wood
- Dean Bottom Dike
- Farnley Tyas
- Gelder Wood
- Lepton Great Wood
- Shelley Wood
- Shepley Mill Wood
- Thunderbridge
- Upper and Lower Stones Wood
- Wood View Meadows

None of the sites identified lie on the survey site, although Dean Bottom Dike lies adjacent to the survey site.

3.3 Woodland Sites

The information provided by WYES revealed no Ancient, Semi-natural or Ancient Replanted Woodland sites have been identified within the 2km search radius.

3.4 Regionally Important Geological Sites (RIGS)

The information provided by WYES revealed four RIGS within the 2km search radius. These are as follows:

- Lepton Great Wood Local
- Burton Dene Quarry
- Hartley Bank Quarry
- Upper and Lower Stones Wood

3.5 **Species Records**

3.5.1 Amphibians

Within the Ecological Data Search provided by WYES, multiple records of amphibians were detected, belonging to four species. A table with the collated amphibian species recorded can be found within Appendix B.

3.5.2 Birds

Within the Ecological Data Search provided by WYES, multiple bird species were detected within the 2km search radius. A table with the collated bird species recorded can be found within Appendix B.

3.5.3 Crustacean

The Ecological Data Search provided by WYES revealed no records of crustaceans within the 2km search radius.

3.5.4 Fish

Within the Ecological Data Search provided by WYES, one species of protected or rare fish species was revealed within 2km of the site. This came in the form of European Eel (*Anguilla anguilla*).

3.5.5 Flora

Within the Ecological Data Search provided by WYES, several floral species were revealed. No records fall on the proposed re-development site itself. A table with the collated floral species recorded can be found within Appendix B.

3.5.6 Invertebrates

The Ecological Data Search revealed one invertebrate species that has been recorded within 2km of the site. This comes in the form of small heath (*Coenonympha pamphilus*) butterflies.

3.5.7 Mammals

Within the Ecological Data Search provided by WYES, multiple mammal species were detected within the 2km search radius of the site. A table with the collated mammal species recorded can be found within Appendix B.

3.5.8 Molluscs

The Ecological Data Search revealed records of no mollusc records within 2km of the site.

3.5.9 Reptiles

Within the Ecological Data Search provided by WYES, no records of reptiles were revealed within the 2km radius of the site.

4 Field Survey

4.1 Habitats

The preliminary ecological appraisal survey revealed multiple habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within Appendix D. The following habitats were recorded on site (in habitat code order):

4.1.1 A3.3 – Scattered Trees

The proposed development site has a tree belt along the access driveway to the east. The species composition of these trees are goat willow (*Salix caprea*), hazel (*Corylus avellana*), leylandii (*Cupressus x leylandii*), maple (*Acer* sp.), scots pine (*Pinus sylvestris*) and silver birch (*Betula pendula*). These trees have the potential to support protected species. Please see section 4.2 for more information.

4.1.2 J1.2 – Amenity Grassland

The site consisted of a well-maintained private amenity grass land with a border of horticultural plants. The species composition of this habitat was dominated by grasses such as annual meadow grass (*Poa annua*) and perennial ryegrass (*Lolium perenne*), with broad-leaved dock (*Rumex obtusifolius*), creeping thistle (*Cirsium arvense*), daisy (*Bellis perennis*), dandelion (*Taraxacum officinale*), nettle (*Urtica dioica*) and ribwort plantain (*Plantago lanceolata*). This habitat has been deemed to be of negligible protected species potential.

4.1.3 J3.6 – Buildings

There are no current buildings on site, although there are stone arches on site. These are artificial ruins and have never been linked to any buildings. This structure has some cracks and crevices, although it has been deemed that none of these penetrate deep enough to be used as roosting locations by bats.

4.2 Species

The preliminary ecological appraisal survey revealed that the habitats that have been outlined for the proposed development area do contain protected species potential. The following assessment has also taken into account the adjacent habitats and connectivity to the wider landscape for all protected and rare species.

4.2.1 Amphibians (including great crested newts)

The site is surrounded by farmland and a communal woodland space with a stream, these have potential of been a suitable habitat for amphibians. There are no known ponds within 250m of the site (small development), although their absence cannot be assumed due to the habitats. Further precautionary measures are required (please see section 5.3).

4.2.2 Badgers

The field survey uncovered no evidence of badger (*Meles meles*) presence located on the proposed development site or within the sphere of influence.

4.2.3 Bats

Some of the trees on the proposed development site are suitable for roosting bats. As these trees are proposed for removal, further surveys are required to ascertain bat presence/absence (please see section 5.3).

4.2.4 Birds

The scattered trees on site contain the potential to support nesting birds, although no evidence of any nests were found during the site survey. Therefore, further precautionary measures are necessary for the survey site (please see section 5.3).

4.2.5 Reptiles

The site has good connectivity to nearby suitable habitat, with features on site (in the way of dry-stone walls, log piles and composite areas) all conducive to reptiles. For this reason, it can be assumed that it is possible that reptiles are present on site and further precautions are recommended (please see section 5.3).

4.2.6 Other Species

The habitats on site have the potential to support the local hedgehog (*Erinaceus europaeus*) populations. Therefore, further precautions are required (please see section 5.3).

4.3 **Potential impacts of the works**

Based upon the results from the desktop survey, field survey and using a degree of academic supposition, the uncompensated development impacts have been summarised as follows:

➤ Amphibians – Low

No known ponds are present in the vicinity of the site. However, suitable habitat is present adjacent to the site.

➤ Badgers – Negligible

No evidence of badgers was found. Therefore, no impacts will occur on this species.

➤ Bats – Moderate-to-High

There are a few potential roosting features on site within the mature trees with some of these proposed for removal.

➤ Birds – High

Bird nests could be built within the hedgerows and trees. Although the current plans are to keep most of the trees, a few will be removed to make room for the new building. Therefore, the proposed scheme of works will be of a low negative impact.

➤ Flora – Negligible

No protected or rare floral species were identified on the survey site.

➤ Reptiles – Moderate

The proposed re-development site may impact negatively on any of the local reptile populations due to the potential features they could utilise on site.

5 Recommendations

5.1 Designated Sites

No designated sites that were revealed by the Ecological Data Search provided by WYES fell on the proposed re-development site itself. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

5.2 Habitats

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

5.3 Species

The site was found to contain the potential to support protected and/or rare species. Therefore, the following recommendations are required for the site:

5.3.1 Bats

Due to the trees potential to support roosting bats, two activity surveys are required during the bat activity survey season of May to September, with most surveys requiring completion before the end of August.

5.3.2 Birds

All tree removal should be undertaken outside of the bird breeding season (the bird breeding season runs from March to August, inclusive). If vegetation is required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this vegetation is removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to **all** active bird nests under the Wildlife and Countryside Act 1981.

5.3.3. Hedgehogs

If the works are undertaken between the 1st November and 31st March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site.

5.3.4 Herpetiles

Due to the potential features on site, it is recommended that site supervision is undertaken during the removal of the dry stone walls, trees, ornamental shrubs and compost heap. The compost heaps should be translocated to elsewhere on site rather than being lost. If any great crested newts (*Triturus cristatus*) are encountered during site supervision, all works must stop and further advice and/or licensing sought. A method statement document should be produced and followed.

5.4 **Site Enhancements**

For the proposed development works, the following site enhancement measures could be incorporated into the site post-development. These measures are optional but are bespoke to the site surveyed for the enhancement of biodiversity.

5.4.1 Flora

At present, the site is not considered to have a diverse range of flora. Therefore, it is recommended that a small section of the site is converted into a 'wild meadow' that uses native wildflower seed mixes. A variety of these can be found on the [Meadowmania](#) or [Wildflower Turf](#) webpages.

5.4.2 Hedgehogs

The site could be enhanced for the local hedgehog populations by installing two [Eco Hedgehog Nest Boxes](#) within the hedgerows around the site. This will create more opportunities for hedgehogs within the local landscape.

5.4.3 Invertebrates

At present, the site is not considered to be of any importance to local invertebrate populations. In conjunction with the wildflower planting, it is recommended that one [Bumblebee Box](#) are incorporated into the scheme, along with one [Bug Hotel](#). This will enhance the site for the local invertebrate populations, which will thus attract species further up in the trophic level

6 References

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7 Appendices

Appendix A: Site Plans

Appendix B: Desktop Study Table

Appendix C: Desktop Study Map

Appendix D: Phase 1 Habitat Map

Appendix E: Site Photographs

Appendix F: Biodiversity Legislation and Policy

Appendix A: Site Plans.

These site plans are for illustration purposes only. For a clearer copy of the plans, please contact Mr. Adam Knight (Simply Architectural Ltd.) on adam.knight@simplyarchitectural.co.uk

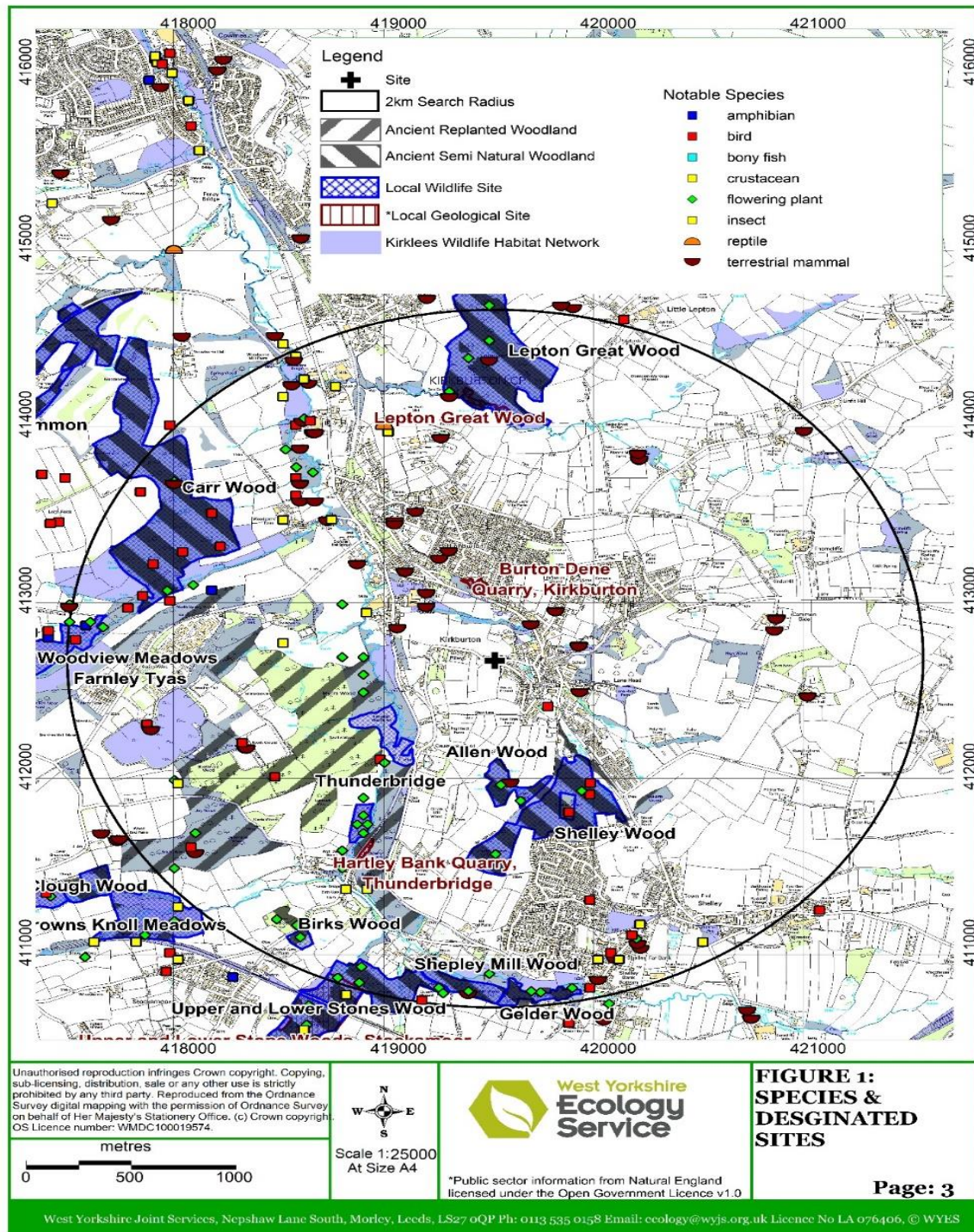


Appendix B: The Ecological Data Tables

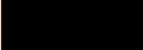
Amphibians	
Common Name	Latin Name
Common Frog	<i>Rana temporaria</i>
Common Toad	<i>Bufo bufo</i>
Great Crested Newt	<i>Triturus cristatus</i>
Smooth Newt	<i>Lissotriton vulgaris</i>
Birds	
Common Name	Latin Name
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Black Redstart	<i>Phoenicircus ochruros</i>
Brambling	<i>Fringilla montifringilla</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Common (Mealy) Redpoll	<i>Acanthis flammea</i>
Dunnock	<i>Prunella modularis</i>
Hobby	<i>Falco subbuteo</i>
House Martin	<i>Delichon urbicum</i>
House Sparrow	<i>Passer domesticus</i>
Kestrel	<i>Falco tinnunculus</i>
Lapwing	<i>Vanellus vanellus</i>
Lesser Redpoll	<i>Acanthis cabaret</i>
Linnet	<i>Linaria cannabina</i>
Mallard	<i>Anas platyrhynchos</i>
Meadow Pipit	<i>Anthus pratensis</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Peregrine	<i>Falco peregrinus</i>
Redstart	<i>Phoenicurus phoenicurus</i>
Reed Bunting	<i>Emberiza schoeniclus</i>
Ring Ouzel	<i>Turdus toquatus</i>
Skylark	<i>Alauda arvensis</i>
Song Thrush	<i>Turdus philomelos</i>
Spotted Flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Stock Dove	<i>Columba oenas</i>
Swift	<i>Apus apus</i>
Tree Sparrow	<i>Passer montanus</i>
Whinchat	<i>Saxicola rubetra</i>
Willow Tit	<i>Poecile montana</i>
Willow Warbler	<i>Phylloscopus trochilus</i>
Yellowhammer	<i>Emberiza citrinella</i>
Yellow Wagtail	<i>Motacilla flava</i>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Black Redstart	<i>Phoenicircus ochruros</i>
Brambling	<i>Fringilla montifringilla</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Common (Mealy) Redpoll	<i>Acanthis flammea</i>
Dunnock	<i>Prunella modularis</i>
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Lapwing	<i>Vanellus vanellus</i>
Lesser Redpoll	<i>Acanthis cabaret</i>
Linnet	<i>Linaria cannabina</i>
Mallard	<i>Anas platyrhynchos</i>

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Meadow Pipit	<i>Anthus pratensis</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Peregrine	<i>Falco peregrinus</i>
Redstart	<i>Phoenicurus phoenicurus</i>
Reed Bunting	<i>Emberiza schoeniclus</i>
Ring Ouzel	<i>Turdus toquatus</i>
Skylark	<i>Alauda arvensis</i>
Song Thrush	<i>Turdus philomelos</i>
Spotted Flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Stock Dove	<i>Columba oenas</i>
Swift	<i>Apus apus</i>
Tree Sparrow	<i>Passer montanus</i>
Whinchat	<i>Saxicola rubetra</i>
Willow Tit	<i>Poecile montana</i>
Willow Warbler	<i>Phylloscopus trochilus</i>
Yellowhammer	<i>Emberiza citrinella</i>
Yellow Wagtail	<i>Motacilla flava</i>
Fish	
Common Name	Latin Name
European Eel	<i>Anguilla anguilla</i>
Flora	
Common Name	Latin Name
Bluebell	<i>Hyacinthoides non-scripta</i>
Broad-leaved Helleborine	<i>Epipactis helleborine</i>
Southern Marsh Orchid	<i>Dactylorhiza praetermissa</i>
Wild Pansy	<i>Viola tricolor</i>
Invertebrates	
Common Name	Latin Name
Small Heath	<i>Coenonympha pamphilus</i>
Mammals	
Common Name	Latin Name
a bat	<i>Chiroptera</i>
a myotis bat	<i>Myotis</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Noctule Bat	<i>Nyctalus noctula</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
Water Vole	<i>Arvicola amphibius</i>

Appendix C: The Ecological Data Search Maps

Appendix D: Phase 1 Habitat Map

KEY	
	Site Boundary
	A3.3 – Mixed Scattered Trees
	J1.2 Amenity Grassland
	J3.6 – Buildings

Appendix E: Site Photographs

Plate 1: An image of the amenity grass land on site.



Plate 2: An image of the scattered trees and stone arch located around the site to the North.



Plate 3: A photograph of the stone arch and foot path located on site.



Appendix F: Biodiversity Legislation and Policy

General Legislation and Policy:

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

The reader is referred to the original legislation for the definitive interpretation.

Badger

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger; and
- interfere with a badger sett by:
 - damaging a sett or any part thereof;
 - destroying a sett;
 - obstructing access to a sett;
 - causing a dog to enter a sett; and
 - disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2010
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2018 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Freshwater White-clawed Crayfish

The white-clawed crayfish is partially protected under Wildlife and Countryside Act 1981 (as amended). It is listed on schedule 5 and therefore afforded protection under Section 9 (1 and 5). Therefore, it is an offence to take white-clawed crayfish and to sell, or attempt to sell, any part of the species, alive or dead, or intend to buy or sell.

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under a variety of legislation and conventions. These include:

- Bern Convention (Appendix II)
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Conservation of Habitats and Species Regulations 2010
- EU Habitats Directive (Annex II and IV)
- Nature Conservation (Scotland) Act 2004
- NERC Act 2006 (Section 41 England; Section 42 Wales)
- Wildlife and Countryside Act 1981 (as amended)

In addition to this, the great crested newt has been listed as a priority species on the UK Biodiversity Action Plan (UKBAP).

This legislation covers all aspects of newt life stages (eggs, efts and adult newts) and makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats etc.) Regulations 1994, to permit activities for the purposes of:

- Regulation 44(2)(e): Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, or
- Regulation 44(2)(f): Preventing the spread of disease
- Regulation 44(2)(g): Preventing serious damage to any form of property or fisheries

Or

- If there is no satisfactory alternative.

The above regulations allow people to carry out activities which would otherwise be illegal.

Hazel Dormouse

Hazel Dormouse and their habitats are protected by:

- Wildlife and Countryside Act 1981 (as amended)
- Countryside Rights of Way (CROW) 2000
- The Natural Environment and Rural Communities Act 2006
- Conservation of Habitat and Species Regulations 2010

These make it an offence to:

- Capture, injure or kill a Hazel Dormouse
- Disturb a Hazel Dormouse
- Damage or destroy breeding or nesting sites in use by Hazel Dormice
- Disturb a Dormouse whilst it is occupying a structure or place that they use for shelter or protection
- Obstruct access to any structure or place that the Dormouse uses for shelter and protection.
- To possess or control any live or dead specimens.

Otter

Otters are fully protected by the European Habitats Directive (92/43/EEC) by being incorporated in annex II of the legislation. In addition to this, otters are listed on schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take an otter.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by otters.
- To intentionally or recklessly disturb an otter whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell otters.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Water Voles

Water Voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take a water vole.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by water voles.
- To intentionally or recklessly disturb a water vole whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell water voles.

Non-Native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix G: Bats and Artificial Light

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotis bats (*Myotis* spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specifies that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

➤ **To introduce lighting curfews or use of PIR sensors.**

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

➤ **To consider no lighting solutions where possible.**

Options such as white lining, good signage and LED cats eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

➤ **To use only high pressure sodium or warm white LED lamps where possible.**

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

➤ **To minimise the spread of light.**

The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

➤ **To consider the height of the lighting column.**

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

➤ **To avoid reflective surfaces below lights.**

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

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