Recycling Facility, Gorsty Hill Road, Upper Tean, ST10 4EL

Ecological Scoping Report

for Renew Land Ltd

Report Reference:	SE484/J/01/LH
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Contents

This report is based on survey data gathered in April 2013 at this site at Gorsty Hill Road, Upper Tean, ST10 4EL.

1.0 Summary

1.1 Solum Environmental was commissioned in April 2013 by Lee Dawkin of Renew Land Ltd to undertake an ecological scoping survey at a recycling facility at Gorsty Hill Road, Upper Tean, ST10 4EL. Survey was commissioned on behalf of Renew Land to inform of any ecological constraints to a potential planning application. The site is a working recycling facility covering 0.8 ha, comprising large areas of hardstanding, office and storage buildings and a slope to a grassy bank at the rear. The area surrounding this site is rural with fields and farms.

1.2 Desktop survey was undertaken and showed no protected sites within 2km of the survey and no waterbodies within or immediately beyond the survey boundaries. Local records were supplied by Staffordshire Ecological Record which highlighted a single record of a great crested newt (GCN) within 1km of the site over the past ten years.

1.3 Field survey was conducted by Dr David Hackett (Director) and Laura Holmes (Ecologist) on 30th April 2013 in good conditions. This site generally showed low potential to support protected species due to the lack of vegetation and suitable structures on the site and the lack of suitable foraging habitat in the surrounding area. Two target notes were recorded: a single swallow's nest (a bird species of amber conservation concern) within the storage area of Building 1 (office building) and a patch of native bluebells close to the northern boundary of the site.

1.4 It is recommended that existing trees are retained at this site wherever possible during re-development and that native, species-rich hedgerows with trees are planted around the site's boundary for the benefit of nesting birds and foraging bats. In addition two swallow boxes should be erected on suitable buildings within the re-development and the site's planting plans should include insect-attracting species which provide further suitable bat foraging habitat.

1.5 Any necessary felling or works to trees should take place outside the bird breeding season (ie March to October, slightly extended from September at this site given the presence of swallows' nests).

1.6 The area of native bluebells to the north-west boundary of the site should be protected and the bluebells allowed to spread by natural colonisation.

1.7 Provided the above recommendations are carried out in full, there is likely to be a net gain in biodiversity at this site as a result of the proposed re-development.

2.0 Introduction

2.1 Background and Commission

2.1.1 Solum Environmental was commissioned in April 2013 by Lee Dawkin of Renew Land Ltd to undertake an ecological scoping survey at a recycling facility at Gorsty Hill Road, Upper Tean, ST10 4EL. Survey was commissioned on behalf of Renew Land to highlight any ecological constraints to a potential planning application to re-develop this site.

2.1.2 Our understanding is that the proposed re-development project will include:

- demolition of existing buildings; and
- landscaping and re-development of the site.

2.1.3 Outline plans were not available to surveyors at this early stage however a red-line boundary of the site was provided to inform ecological surveyors of the extent of proposed re-development works.

2.2 Aims of the Survey

2.2.1 This ecological scoping survey aimed to:

- identify and evaluate the site's current ecological value;
- identify any protected habitats and species within or adjacent to this site;
- highlight any potential ecological constraints to the proposed re-development of this site; and
- advise on any further ecological survey, mitigation or licensing requirements, where re-development is likely to impact on either protected species or habitats.

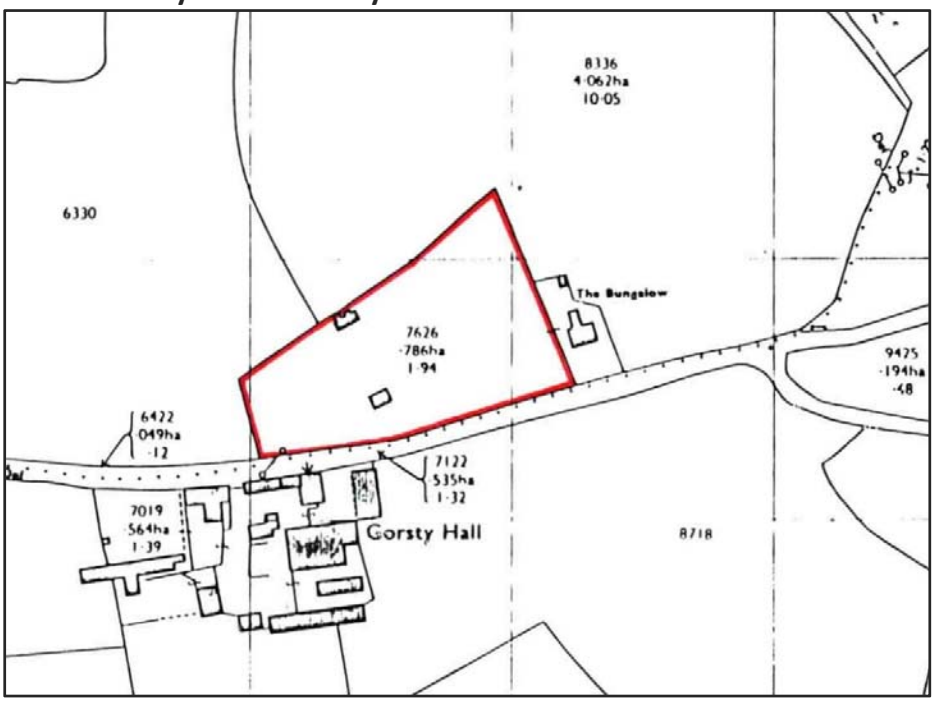
2.3 Site Context

2.3.1 The site survey area is shown as a red-line boundary at Plan 1 below. The site's wider location is shown at Plan 2 below.

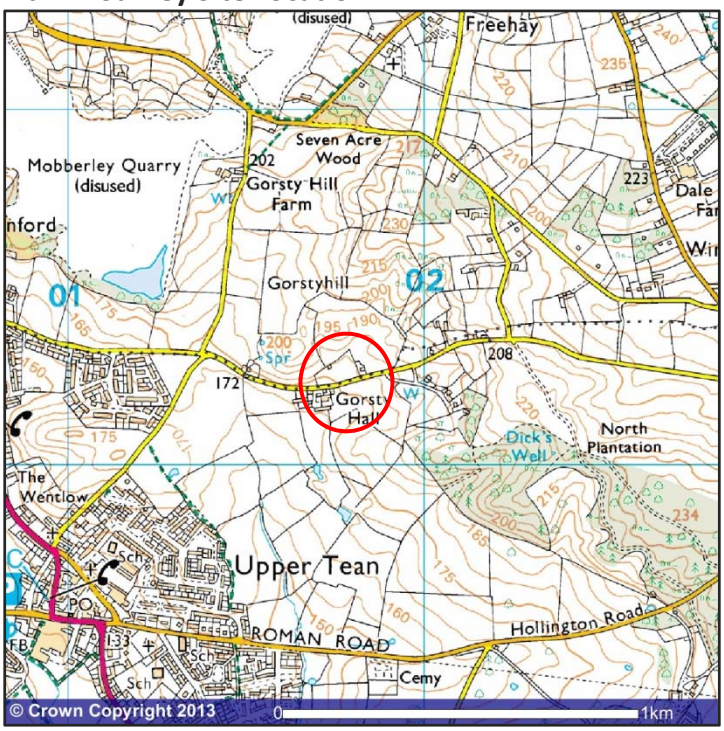
2.3.2 The site is a working recycling facility covering approximately 0.8 ha, comprising large areas of hardstanding, office and storage buildings with a slope to a grassy bank at the rear of the site. The area immediately surrounding the site is rural with fields and farms.

2.3.3 The grid reference for the approximate centre of this site is SK018402.

Plan 1: Survey Site Boundary



Plan 2: Survey Site Location



3.0 Legal Protection and Planning Guidance

3.1 National Planning Policy Framework (NPPF)

3.1.1 The NPPF came into force in March 2012. It sets out the Government's planning policies for England and how these are expected to be applied. It gives guidance to local planning authorities on the content of their local plans but is also a material consideration in determining planning applications. **The NPPF states that the planning system should provide a net gain for biodiversity wherever possible.** The NPPF replaces much of the previous planning policy guidance, including PPS9: Biodiversity and Geological Conservation. However, the Government Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System (which accompanied PPS9) remains valid.

3.2 Biodiversity Action Plans

3.2.1 **UK Biodiversity Action Plans:** The **UK Biodiversity Action Plan (UKBAP)** was established in response to the **Convention on Biological Diversity 1992**, signed by 150 members at the Rio Earth Summit, which aimed to promote sustainable development amongst all signatories. Specific action plans have been prepared for highly protected species. As well as a national Biodiversity Action Plan, local Biodiversity Action Plans identify species of note at local level throughout the UK. The survey site is covered by the Staffordshire Central Farmland Biodiversity Action Plan.

3.3 Priority Habitats and Species

3.3.1 Under the terms of the Natural Environment and Rural Communities Act 2006, all public bodies are required to have regard to the conservation of biodiversity when carrying out their activities. This means that efforts must be made to consider priority and protected species and habitats in particular. There would be a presumption in the land-use planning process against any development that would result in loss to an area of priority habitat or harm to the population of any priority species.

3.4 Vegetation

3.4.1 The Wildlife and Countryside Act 1981 (as amended) lists plants which are statutorily protected. In relation to development these plants are rare and are not often encountered. The bluebell is scheduled, with commercial bulb-picking from the wild being prohibited. There is also a category of plants which it is an offence to introduce to the wild. This category includes Japanese knotweed, which is often found on brownfield sites. Care is needed to avoid spreading the species around the site during earthworks, and to ensure that any removal of infested soils off-site is to a licensed tip. Giant hogweed and Himalayan balsam are also listed in this category of invasive alien plant species. In addition the Ragwort Control Act came into force on 20 February 2004 and enables the Secretary of State to make a Code of practice to prevent the spread of common ragwort.

3.5 Hedgerows

3.5.1 As a priority habitat for conservation concern, hedgerows also receive further protection under the Hedgerow Regulations 1997. Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Local planning authority permission is normally required before removing hedges that are at least 20 metres (66 feet) in length, more than 30 years old and contain certain plant species. The authority will assess the importance of the hedgerow using criteria set out in the regulations. The local planning authority is also the enforcement body for offences created by the Regulations. If a hedgerow is removed without permission, there may be an unlimited fine and the hedgerow may have to be replaced.

3.6 Great Crested Newts (*Triturus cristatus*)

3.6.1 A European Protected Species (EPS) and fully protected under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Under the legislation it is an offence to:

- I*ntentionally or deliberately capture, kill or injure great crested newts (GCNs).*
- I*ntentionally or recklessly disturb them in a place used for shelter or protection.*
- *Damage or destroy a breeding site or resting place.*
- *Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.*

- *Possess a great crested newt, or any part of it, unless acquired legally.*
- *Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.*

3.6.2 **Where Great crested newts (GCNs) are present at a proposed development site it is usually possible to continue with the project, re-locating the animals in advance of development, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified GCN-specialist ecologist.** Each licence application must be supported by:

- full optimal-season great crested newt survey results and analysis;
- a suitable mitigation strategy that ensures that the favourable conservation status of the GCN population will be maintained (this usually involves the provision by the developer of additional land with ponds as compensation for loss of habitat and breeding sites). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- a method statement explaining how GCNs will be accommodated legally if found during the development process.

3.7 Bats (*Chiroptera*)

3.7.1 All species of bats are European Protected Species and their breeding and nesting sites (roosts) are given a high degree of legal protection under the terms of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. In addition, all bats are the subject of a UK-wide Biodiversity Action Plan (BAP). This combined legislation offers bats, their roost sites and resting places strict protection from intentional or reckless disturbance (see wording of GCN legislation above). It should be noted that, under the legislation, a bat roost is defined as any structure or place which is used by bats to shelter, breed or perch whilst feeding. As bats tend to reuse the same roosts, the roost is legally protected, whether the bats are present at the time or not.

3.7.2 **Where bats are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified bat-specialist ecologist.** Each licence application must be supported by:

- full optimal-season bat survey results and analysis;
- a suitable mitigation strategy that ensures that the favourable conservation status of the bat population will be maintained (this usually involves the provision by the developer of replacement permanent bat roosts, additional bat boxes and both bat-friendly planting and lighting within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- a method statement explaining how bats will be accommodated legally if found during the development process.

3.8 Badgers (*Meles meles*)

3.8.1 All badgers are protected from harm under the Protection of Badgers Act (1992). Under this act it is an offence:

- to kill, injure or take a badger, or to attempt to do so;
- to use badger tongs in the course of killing or taking, or attempting to kill or take, any badger;
- to kill or take a badger with a firearm which does not fall within the specifications laid down in the Act;
- to dig for a badger;
- to cruelly ill-treat a badger;
- to possess or control a live badger;
- to sell or offer for sale a live badger;
- to mark, or attach any ring, tag or marking device to a badger;
- to possess or control any dead badger, any part of one, or anything derived from one;
- to interfere with a badger set by (a) damaging a sett or any part of one; (b) destroying a sett; (c) obstructing access to or any entrance of a sett; (d) causing a dog to enter a sett; or (e) disturbing a badger when it is occupying a sett.

3.8.2 **Where badgers are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. A licence is always required to shut**

down a badger sett or for works within 30m of a badger sett. The licence application process can be complex and can only be conducted by a suitably qualified badger-specialist ecologist. Each licence application must be supported by:

- full optimal-season badger survey results and analysis;
- a suitable mitigation strategy that ensures that the favourable conservation status of the badger population will be maintained (this usually involves the provision by the developer of replacement artificial setts, planting of suitable fruit-bearing shrubs, erection of badger gates and underpasses within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- a method statement explaining how badgers will be accommodated legally if found during the development process.

3.9 Otters (*Lutra lutra*)

3.9.1 Otters are a European Protected Species (EPS) and fully protected under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Otters and their resting places are fully protected, it is an offence to deliberately, capture, injure or kill them or to damage, destroy or obstruct their breeding or resting places. It is also an offence to disturb otters in their breeding or resting places.

3.9.2 **Where otters are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified otter-specialist ecologist.** Each licence application must be supported by:

- full optimal-season otter survey results and analysis;
- a suitable mitigation strategy that ensures that the favourable conservation status of the otter population will be maintained (this usually involves the provision by the developer of replacement waterbodies and holts within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- a method statement explaining how otters will be accommodated legally if found during the development process.

3.10 Water Voles (*Arvicola amphibius*)

3.10.1 From 6th April 2008, water voles and their resting places gained full protection under the Wildlife and Countryside Act (1981). It is an offence to deliberately, capture, injure or kill them or to damage, destroy or obstruct their breeding or resting places. It continues to be an offence to disturb them in their breeding or resting places.

3.10.2 **Where water voles are present at a proposed development site it is usually possible to continue with the project, re-locating the animals in advance of development, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified water vole-specialist ecologist.** Each licence application must be supported by:

- full optimal-season water vole survey results and analysis;
- a suitable mitigation strategy that ensures that the favourable conservation status of the water vole population will be maintained (this usually involves the provision by the developer of additional land with ponds as compensation for loss of habitat and breeding sites). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- a method statement explaining how water voles will be accommodated legally if found during the development process.

3.11 Breeding Birds

3.11.1 All wild birds, their nests and their eggs are protected by the Wildlife & Countryside Act 1981 (as amended). It is an offence (with certain exceptions), to intentionally or recklessly kill, injure or take any wild bird (this includes chicks); to take, damage or destroy any wild bird's nest while it is use or being built; and to take or destroy the egg of any wild bird. The definition of a wild bird is 'any bird of a kind which is resident in or a visitor to Great Britain in a wild state'.

3.11.2 Species named in Schedule 1 of the Act are given special protection and it is an offence to disturb these species at the nest of while they are caring for dependant young. The RSPB and the UK's leading bird conservation organisations work together to regularly review the status of birds within the UK. A total of 246 species are assessed against a set of objective criteria to place each on one of three lists - green, amber and red – indicating an increasing level of conservation concern. These lists provide a tool for guiding conservation actions for birds in the UK and for setting priorities for action on individual species. The last review of these lists was completed in May 2009.

3.11.3 For certain species, eg feral pigeon, general licences are available for an authorised person to lawfully carry out the actions outlined above providing that it is in the overriding interest of public health or air safety and that all other attempts to prevent the problem caused by the species have failed.

3.12 Barn Owls (*Tyto alba*)

3.12.1 The Barn owl has seen significant declines in recent history primarily due to habitat loss and the destruction, removal or renovation of traditional nesting sites. It is currently included in the amber-list of species of medium conservation concern, having been classified as a Species of European Conservation Concern (SPEC). In Great Britain it is listed on Schedule 1 of the Wildlife & Countryside Act (1981) as amended. It is an offence to disturb any wild bird included in Schedule 1 while it is building a nest or is at, on or near a nest containing eggs or young; or disturbs dependent young of such a bird. Note that if any of the above resulted from a person being reckless, even if they had no intention of committing the offence, their action would still be considered an offence. A person is not guilty of an offence if it can be shown that the act was 'the incidental result of a lawful operation and could not have been reasonably avoided'; only a court can decide what is 'reasonable' in any set of circumstances.

3.13 Reptiles

3.13.1 The four widespread species of reptile in the UK (ie common lizard, slow-worm, grass snake and adder) are all protected under the terms of the Wildlife and Countryside Act 1981 (as amended), however they are not fully protected under European law. This level of protection prohibits the intentional killing and injuring and trade of these reptiles. Where a survey identifies potential habitat for reptiles at a development site, a reptile survey may be needed prior to submission of a planning application and mitigation may be required by Natural England for any loss of reptile habitat as a result of a site's re-development.

4.0 Methodologies

4.1 Desktop Survey Methodology

4.1.1 Desk study was carried out to identify any nearby national and local nature conservation designations, and any protected species records which already exist for this area. The M*agi*C website was interrogated to determine whether any statutory or non-statutory conservation sites lay within 1km of the survey are. The data supplied was assimilated and reviewed.

4.1.2 A thorough examination of Ordnance Survey base maps and Google Earth aerial photographs was conducted to locate any waterbodies lying within 250m of this survey boundary. These waterbodies could include not only ponds, but also streams, brooks, rivers, canals, ditches, ash lagoons and temporary pools of water where GCNs could potentially breed.

4.1.3 Ecological records were requested from the local ecological records centre (Staffordshire Ecological Record). Details were obtained of all protected species recorded within a 1km radius of the site. The National (UK) and local (Staffordshire) Biodiversity Action Plans (BAPs) were also interrogated for protected habitats and species relevant to this site.

4.1.4 The landowner of this site was asked for anecdotal reports of any protected species observed.

4.2 Field Survey Methodology

4.2.1 Field survey was conducted by Dr David Hackett, Director at Solum Environmental, during daylight hours on 30th April 2013. Laura Holmes assisted with this survey. Weather was dry with 80% cloud cover and 8mph winds. The temperature was 8°C.

4.2.2 **Extended Phase 1 Habitat Survey** was conducted following best practice methodology (JNCC, 1993, as amended 2010). This survey work included visual inspection of the site and adjacent habitat. Broad habitat compartments around the site were noted in order to establish the potential for movement of fauna between habitats. The presence (or potential to support) protected species was noted, and particular note was made of any invasive species present. Target notes were recorded of any points of ecological value and photographs were taken throughout this survey.

4.2.3 **Great crested newts**: During scoping survey the team examine the potential of any waterbodies lying within the survey boundaries to support GCNs, using the Habitat Suitability Index (HSI) method. Although HSI is not a substitute for optimal-season full protected species survey, it provides an objective score for each pond, which can then inform a decision as to whether or not further detailed survey should be undertaken. In addition any terrestrial habitats on site are assessed for their potential to support GCNs and other amphibians, and any suitable refugia that cab be lifted are examined for GCNs and other amphibians. Throughout these surveys best-practice methodologies set out by Froglife and Natural England are employed.

4.2.4 **Bats**: The survey followed best practice guidance for early-stage bat survey as set out by the Bat Conservation Trust and Natural England. This included an external inspection of all buildings and mature trees to identify any potential roost sites (such as cracks or holes in brickwork or trees, loose roofing tiles, gaps between the eaves, soffit board and outside walls etc) and any suitable entry points into internal voids around the eaves (including soffits, fascia and barge boarding and under tiles). Any walls, windows (and ledges) beneath these features were examined for the presence of bat droppings. The interior of most buildings was not accessed at this scoping stage, however access to the interior of some of the outbuildings was possible and an internal inspection of these was also made. In addition a general assessment was made of the habitat available for foraging bats within the survey area.

4.2.5 **Badgers:** A walkover of the site and all of its boundaries was conducted in an attempt to identify any evidence of badger activity following best-practice guidelines as described by Natural England, the Badger Trust and Harris,

Creswell & Jeffries (1989). Specifically surveyors checked for setts, latrines, pathways and fence/ hedge crossing points and any associated trapped hairs, scratching posts and ground disturbed by foraging.

4.2.6 **Otters:** During scoping surveys, the banks of any watercourses and waterbodies within the survey area are examined for evidence, spraints (droppings), slides (areas of worn bank at favoured entry points into the water), feeding remains and otter prints.

4.2.7 **Water voles:** During scoping surveys any banks bordering any watercourses or waterbodies are examined for burrow entrances, terrestrial nests, latrines, feeding platforms and prints that would suggest evidence of water vole activity.

4.2.8 **Breeding birds:** The survey area was assessed for its breeding bird potential. This included an external examination of all buildings to identify any evidence of previous season nesting by birds, eg visible old nests or droppings beneath wall cavities etc. Access to the interior of some of the outbuildings was possible and an internal inspection of these was also made.

4.2.9 **Reptiles:** Both the habitat within the survey area and that of the surrounding landscape was assessed for its potential to support reptiles.

4.3 Timing of Field Surveys in Relation to Optimal Seasons

4.3.1 April is optimal for Extended Phase 1 Habitat Survey (on which this ecological scoping survey is based) and for HSI survey for GCNs.

4.3.2 Species such as great crested newt, reptiles and bats are becoming active in April so any signs of presence would be more visible.

4.4 Survey Team Members

4.4.1 Dr David Hackett BSc MLD PhD MCIEEM CEnv is Director and Senior Ecological Project Manager at Solum Environmental. David Hackett is a highly experienced ecological project manager and surveyor with over 17 years' professional experience of project managing and coordinating ecological survey, and specialises in plant, bat and badger ecology. He is Ecological Project Manager for a 1000 ha redevelopment site in Bishopton, Scotland, supporting 12 badger clans and over 60 individuals, and works closely with SNH to ensure that the resident badger population continue to thrive. David is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist and a member of Cheshire Bat Group.

4.4.2 Laura Holmes BSc GCIEEM is Ecologist at Solum Environmental Ltd. She has a first-class honours degree in Biological Sciences and has worked in the ecological sector for six years for Cheshire Wildlife Trust, The NBN and rECOrd, the Cheshire local biodiversity records centre. She is experienced in the field identification of plants, amphibians and small mammals. Laura is a member of the Cheshire Bat Group, South Lancashire Bat Group and is a volunteer surveyor for PondNet.

4.5 Survey Constraints

4.5.1 No constraints to survey were identified.

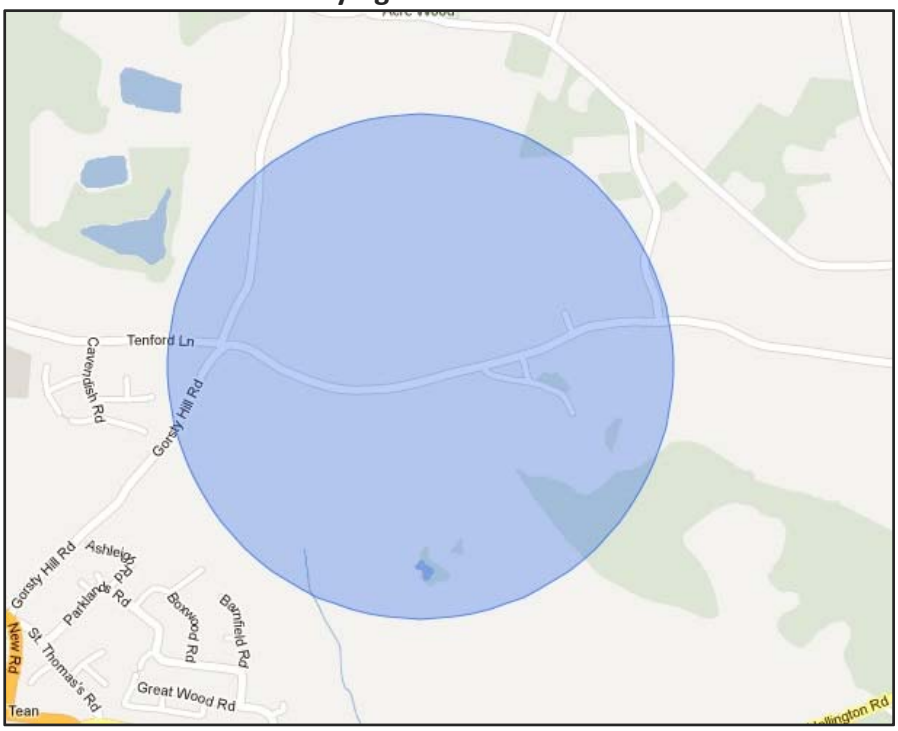
5.0 Survey Results

5.1 Desktop Survey Results

5.1.1 The MagiC site check returned no sites of local, national or international protected status within 2km of the survey site.

5.1.2 Desktop survey identified no waterbodies lying within the site boundaries and two waterbodies lying within 250m of the site boundaries to the south of the site, separated from the site by a busy road. The location of waterbodies lying within 250m of the site boundaries is given in Plan 3 below.

Plan 3: All Waterbodies Lying Within 250m of Site Boundaries



5.1.3 Relevant local records for this area were obtained from Staffordshire Ecological Record. The following species have been recorded within 1km of the survey area over the past ten years.

Table 1: LER Records of Protected Species within 1km of Site over Past Ten Years

Latin Name	Common Name	Recorded	Protection
Triturus cristatus	Great crested newt	2007	Protected under Conservation of Habitats and Species Regulations (2010)

5.2 Surveyors, Dates and Weather Conditions

5.2.1 Table 2 below sets out dates, times and weather conditions for each survey conducted, along with names of surveyors present.

Table 2: Field Surveys - Surveyors, Dates and Weather Conditions

Survey Type	Survey Date + Start Time	Surveyors	Weather Conditions
Ecological scoping survey	30th April 2013 10:00	David Hackett (Lead surveyor) Laura Holmes	8°C, dry, 80% cloud cover.

5.3 Habitats, Vegetation, Hedgerows, Trees

5.3.1 The site comprises a largely hard-surfaced recycling facility, office and storage areas with a narrow band of vegetation, largely trees and scattered hawthorns to the north and west. The site sits near the top of a hill sloping to the south. The surrounding land is largely agricultural landscape; there is a small tree-lined road immediately to the south with a farm (Gorsty Hall) slightly to the south-west. There is a bungalow immediately to the east of the site.

5.3.2 The following habitats were recorded within the survey area (these habitats are mapped at Appendix 1: Extended Phase One Habitat Plan):

Table 3: Habitat Types Recorded On Site

JNCC Code	Habitat Type
J4	Hardstanding
J1.3	Ephemeral/Short Perennial
A3.1	Scattered trees
J2.4	Fence
J2.5	Wall

5.3.3 Four buildings lie within the survey boundary (these buildings are also mapped at Appendix 1. Photographs and descriptions of each building are provided in Table 6 below):

Building 1 Office building
Building 2 Open-fronted barn
Building 3 Storage unit
Building 4 Open-fronted storage unit

5.3.4 Building 1 (office building) lies within the centre of the site within the area of hardstanding. Building 2 (open-fronted barn) lies in the centre of the northern site boundary. Buildings 3 (storage unit) and 4 (open-fronted storage unit) lie in the centre of the western site boundary.

5.3.5 Scattered birch, ash, willow, sycamore and grey poplar were present along the boundaries of the site but none of these were mature or veteran trees.

5.3.6 Table 4 lists significant plant and tree species recorded at this site. Species were designated as significant if they were:

- invasive weeds;
- rare or unusual plants;
- highly protected;
- Biodiversity Action Plan species;

- present in high numbers; or
- exceptional specimens.

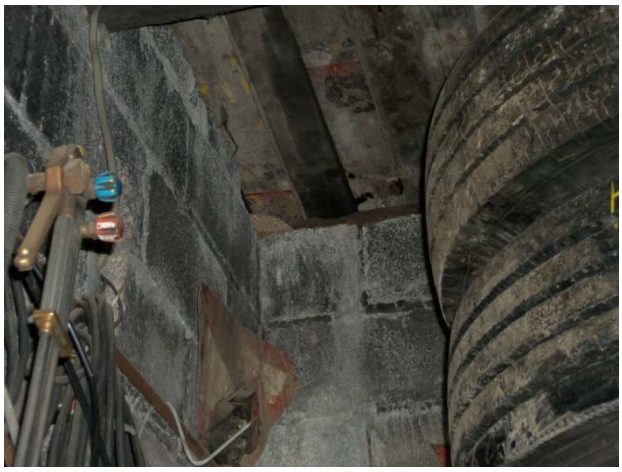
Table 4: Significant Plant and Tree Species Recorded On Site

Latin Name	Common Name	Protection
Hyacinthoides non-scripta	Native bluebell	Protected under the Wildlife and Countryside Act 1981.

5.4 All Target Notes

5.4.1 The following target notes were recorded at this site, in relation to both habitats and species:

Table 5: All Target Notes Including Photographs

Target Note No.	Description	Photographs
1	Swallow's nest in storage area of Building 1 (office building)	
2	Patch of native bluebells close to northern boundary of site	

5.5 Great Crested Newts (*Triturus cristatus*)

5.5.1 There were no waterbodies on or immediately adjacent to the site. There are ponds over 100m to the south, but separated from the site by a busy road.

5.5.2 No amphibians were discovered beneath the few suitable potential refugia within the site.

5.6 Bats (*Chiroptera*)

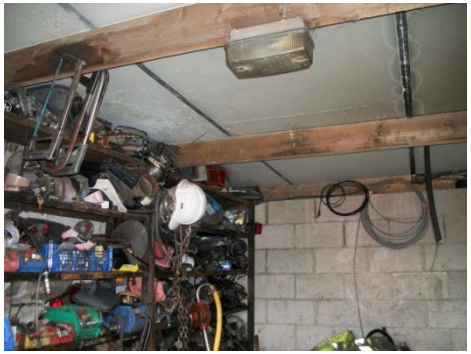
5.6.1 This site generally showed low potential to support bat roosting and foraging, due to the lack of vegetation on the site and the lack of suitable foraging habitat in the surrounding area.

5.6.2 Table 6 below provides photographs and descriptions of each building and sets out an assessment of each building's potential to support bats.

5.6.3 There were no mature trees, underground structures or other features which showed potential to support roosting bats.

Table 6: Assessment of Buildings on Site for Bat Roost Potential (inc Photographs)

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
1	Office Building	   	The single-storey office building comprises three sections: a redbrick flat felting-roofed office block, a breezeblock flat, felting-roofed extension used for storage and a breezeblock and angled felting-roof extension also used for storage. There were some gaps underneath and at the ends of the roofing felt, all of which were checked with a high-powered torch and found to be cobwebby, indicating no recent use. There were also gaps under the wooden beams between sections but no signs of bat use were found. The breezeblock buildings were found to be cold and damp. No droppings or other evidence of bat use was found internally or externally.	Very low

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
2	Open-fronted barn		This is a recently constructed structure comprising breezeblock walls to 2m, with corrugated iron walls and roof with metal beams. No droppings or other evidence of bat use was found internally or externally.	Very low
3	Storage unit	 	Single-storey breezeblock building used for storage with a flat roof and no loft void. There are some gaps where the roof material meets the walls but these were all checked by high-powered torch and found to be cobwebby, indicating no recent use by bats. No droppings or other evidence of bat use was found internally or externally.	Very low

Bldg No.	Building Name	Photographs	Description	Bat Roost Potential
4	Open-fronted storage unit	 	Single-storey building used for storage with a flat corrugated iron roof with wooden beams internally and no loft void. Walls are breezeblock to 1m then corrugated iron. No droppings or other evidence of bat use was found internally or externally.	Very low

5.7 Badgers (*Meles meles*)

5.7.1 No evidence of badgers was found within the site boundary or on the improved grassland fields to the north. The site has very low potential to support badgers due to the lack of suitable habitat.

5.8 Otters (*Lutra lutra*)

5.8.1 No evidence of otters was found within the site boundary or on the improved grassland fields to the north. The site has very low potential to support otters due to the lack of suitable habitat.

5.9 Water Voles (*Arvicola amphibius*)

5.9.1 No evidence of water voles was found within the site boundary or on the improved grassland fields to the north. The site has very low potential to support water voles due to the lack of suitable habitat.

5.10 Breeding Birds

5.10.1 A swallow's nest was noted within the storage area of Building 1 (office building – see Target Note 1). Swallows are on the BTO's amber list of Birds of Conservation Concern.

5.10.2 A single dunnock (*Prunella modularis*) was observed flying within the site boundary but no nest was located. The scrub area around the northern boundary slope would provide suitable habitat for dunnocks to breed. Dunnocks are also on the BTO's amber list of Birds of Conservation Concern.

5.10.3 No other active nests were observed on any buildings or within the wider survey area.

5.11 Barn Owls (*Tyto alba*)

5.11.1 No evidence of barn owls was found within the site boundary. The site has very low potential to support barn owls due to the lack of suitable foraging habitat within the site and surrounding area.

5.12 Reptiles

5.12.1 No evidence of reptiles was recorded. The habitat within the survey area and the land surrounding the site was considered unlikely to support reptiles.

5.13 Other Species Observed

5.13.1 Other species observed on site were:

- Buzzard (*Buteo buteo*)
- Robin (*Erithacus rubecula*)
- Blackbird (*Turdus merula*)

5.13.2 Each of the above bird species are BTO green-listed, so not currently birds of conservation concern.

6.0 Conclusions and Recommendations

6.1 Assessment of Site's Current Ecological Value

6.1.1 The limited vegetation and current use as a recycling facility means this site has very low ecological value.

6.2 Habitats, Hedgerows, Vegetation, Trees

6.2.1 The few trees around the site are not mature and intact, and so currently offer limited ecological value to other species. There is limited vegetation as the majority of the site is hardstanding and the rest contains bramble scrub and an area of disturbed ground.

6.2.2 Wherever possible trees should be retained at this site during the proposed re-development.

6.3 Great Crested Newts

6.3.1 There was no suitable habitat for great crested newts at this site, no evidence of newts was found at the site and there are no ponds within 250m of the site that are not separated by a significant barrier. Subsequently this site has very low potential to support GCNs or other protected amphibians and no further survey is needed.

6.4 Bats

6.4.1 The buildings on the site all offer very low roost potential for bats and no evidence of bats was found. There are no trees of sufficient age or that offer features suitable for roosting bats. Subsequently this site has very low potential to support bats and no further survey is needed.

6.5 Badgers

6.5.1 The site offers very low potential to support badgers and no evidence of badgers using the site was found. Therefore no further survey is needed.

6.6 Breeding Birds

6.6.1 Swallows currently use part of Building 1 (office building) as a nesting site. These species are site-faithful and will return in mid-April to breed. Therefore no work should be undertaken on this building between the months of April and October inclusive as such work would be likely to destroy active nests. Two swallow boxes should be erected on suitable buildings within the proposed re-development (see details provided at Appendix 2).

6.6.2 The scattered trees and area of scrub offer a limited potential for breeding birds and therefore no tree felling or vegetation clearance should take place between March and October inclusive.

6.6.3 However, this site does not generally represent good breeding habitat for birds and no further survey for birds is needed.

6.7 Biodiversity Enhancement Measures

6.7.1 The area of native bluebells in the northern portion of this site should be protected and allowed to spread by natural colonisation.

6.7.2 Re-development at this site generally offers a good opportunity to enhance its biodiversity value. The creation of species-rich hedgerows with trees around the site's perimeter would provide opportunities for nesting birds and foraging bats.

6.7.3 Planting plans for this site should include a range of insect-attracting shrubs, including night-flowering species, in order to enhance the site's value as potential feeding habitat for bats (see details provided at Appendix 3).

6.8 All Ecological Recommendations

R1 **Trees are to be retained at this site wherever possible during re-development.**

R2 **Any necessary felling or works to trees should take place outside the bird breeding season. The bird breeding season normally runs from March to September inclusive, however given the presence of swallows' nests (a BTO amber-list species) this should be extended at this site to mid-October. Should these works be essential during the bird breeding season then all trees and buildings to be affected should be checked for the presence of breeding birds by a fully qualified and experienced bird surveyor 24 hours prior to the works taking place. Works should only take place once the ecologist is satisfied that no active nests will be affected.**

R3 **No work should be undertaken to Building 1 (office building) containing the swallow's nest between the months of April and October inclusive.**

R4 **Suitable alternative nesting sites should be provided for swallows within any proposed redevelopment of the site.**

R5 **The area of native bluebells should be protected and its spread allowed by natural colonisation.**

R6 **Wherever possible native, species-rich hedgerows with trees should be planted around the site, for the benefit of nesting birds and foraging bats.**

R7 **Planting plans for this site should include a range of species which provide foraging habitat for bats.**

7.0 Contacts, References and Bibliography

7.1 Ecologist Contacts

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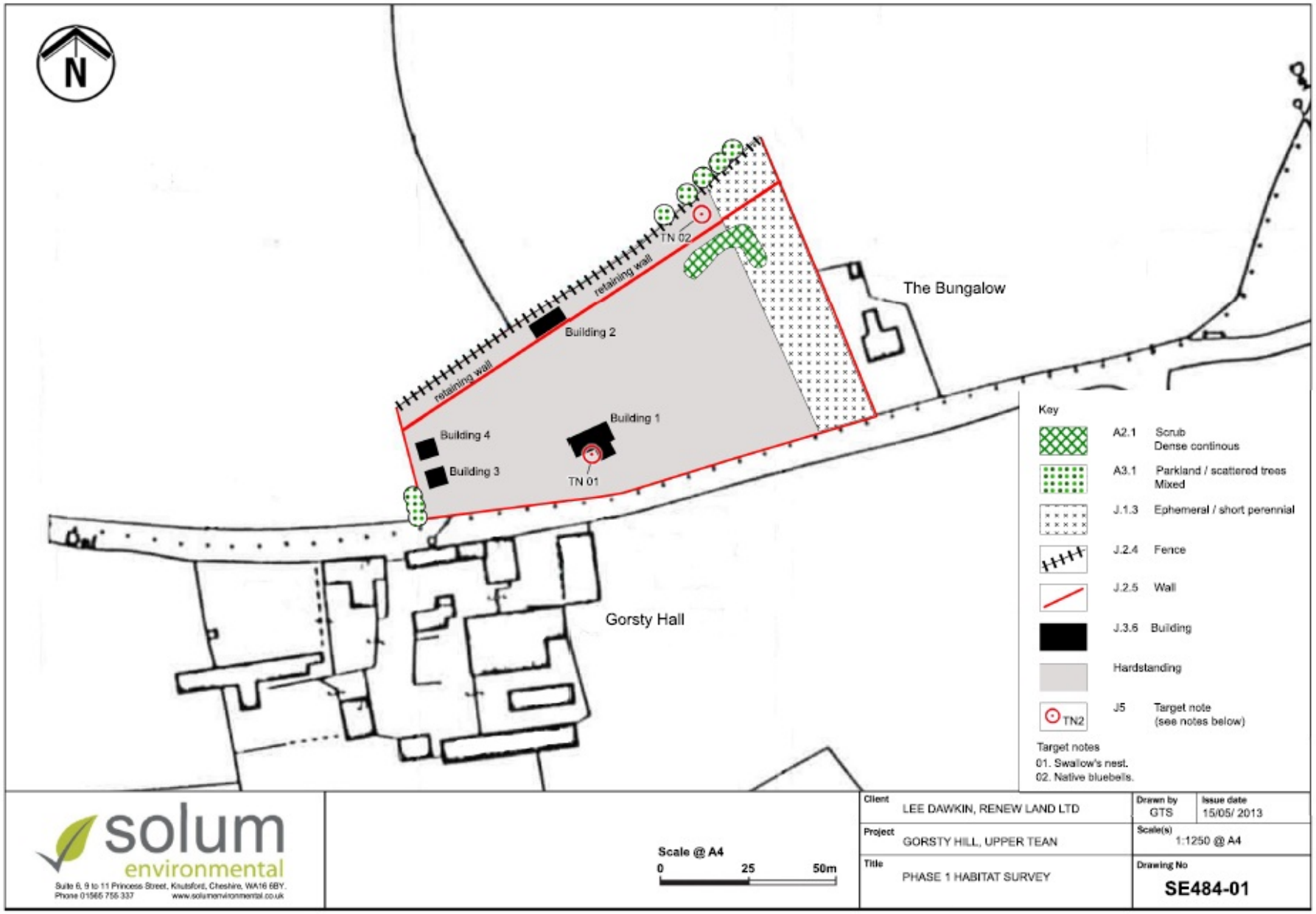
7.2 References and Bibliography

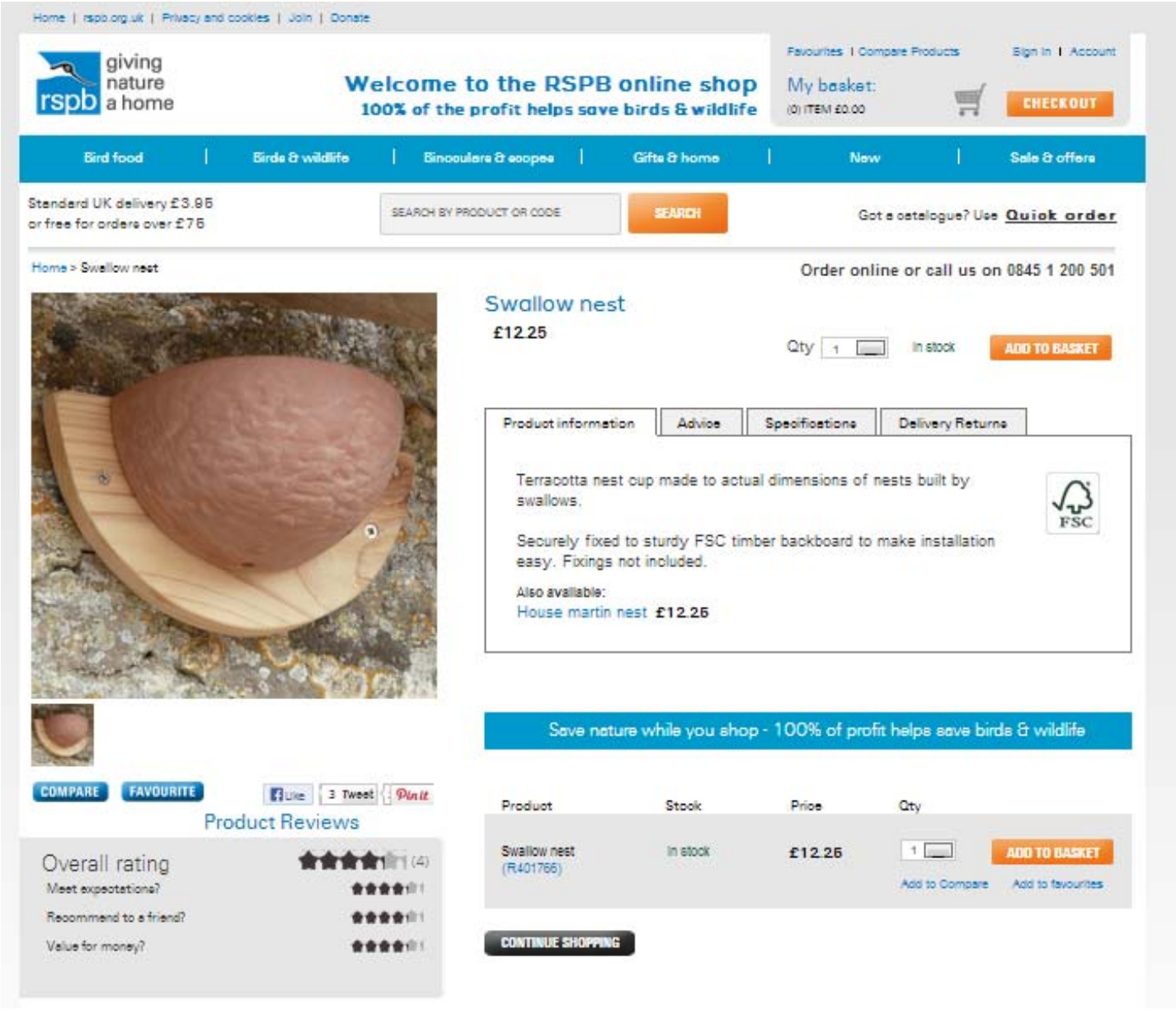
- JNCC Handbook for Phase One Habitat Survey (2010)
- The Bat Workers Manual 3rd ed (2004), Mitchell Jones, JNCC , Peterborough
- A Guide to British Bats (2001) Jones, K & Walsh, A, The Mammal Society, London
- The Identification of British Bats (1993), Yalden, D, The Mammal Society, London
- Bats (2003), Waters,D & Warren, R, The Mammal Society, London
- Bat Surveys: Good Practice Guidelines, 2nd Edition (2012), Hundt L, Bat Conservation Trust
- A Field Guide To Monitoring Nests (2011), Ferguson-Lees, J., Castell, R. & Leech, D. (British Trust for Ornithology)
- British Trust for Ornithology, Species of Conservation Concern
- Natural England (2007), Badgers and Development A Best Practice Guide, Peterborough
- Krebs C (2006) Mammals in: Sutherland WJ (ed) Ecological census techniques, 2nd Edition, 351-369. Cambridge University Press, Cambridge.
- Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers. Mammal Society;
- Scottish Natural Heritage (2003). Best Practice Guidance - Badger Surveys. Inverness Badger Survey 2003. Commissioned Report No. 096.
- MJ Wiggington (1999), British Red Data Books: 1 Vascular Plants, JNCC, Peterborough.
- Wildlife and Countryside Act, (1981), as amended. HMSO, London.
- The Conservation (Natural Habitats, &c.) Regulations 1994. HMSO, London.
- The Conservation and Habitats Regulations 2010. HMSO London
- EA (1995), Guidelines for Baseline Ecological Assessment, Institute of Environmental Assessment. E&FN Spon, An Imprint of Chapman and Hall, London.
- UK BAP www.ukbap.org.uk

Appendix 1: Extended Phase One Habitat Map



Appendix 2: Swallow Nest Box Details

The following swallow nest boxes are available from http://shopping.rspb.org.uk/swallow-nest.html



Appendix 3: Planting List to Encourage Bat Species

Planting to enhance a site for bats should aim to provide a habitat rich in insects, and with the potential for alternative roosting sites. The following are examples of plant species, which can be used where appropriate, to enhance a landscape for bats**.**

Trees and Shrubs (of local provenance where possible)

Oak	*Quercus robur*
Ash	*Fraxinus excelsior*
Silver Birch	*Betula pendula*
Field Maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Alder	*Alnus glutinosa*
Goat Willow	*Salix caprea*
Guelder Rose	*Viburnum opulus*
Hazel	*Coryllus avellana*
Blackthorn	*Prunus spinosa*
Elder	*Sambucus nigra*

Night-scented flowers

As bats usually feed at dusk and dawn it is advantageous to use night-scented flowers which will attract moths and other night-flying insects:

Nottingham Catchfly	*Silene nutans*
Night -flowering Catchfly	*S. noctiflora*
Bladder Campion	*S. vulgaris*
Night-scented Stock	*Matthiola bicornis*
Dame's-violet	*Hesperis matronalis*
Common Evening-primrose	*Oenothera biennis*
Soapwort	*Saponaria officinalis*

Scented herbs

Chives	*Allium schoenoprasum*
Sage	*Salvia officinalis*
Marjoram	*Origanum vulgare*
Borage	*Borago officinalus*
Mint	*Mentha* sp.

Climbers

Honeysuckle (native)	*Lonicer periclymenum*
Traveller's-joys	*Clematis vitalba*
Dog-rose	*Rosa canina*
Sweet-briar	*R. rubiginosa*
Field-rose	*R. arvensis*
Ivy	*Hedera helix*
Bramble	*Rubus fruticosus* agg.

Where re-seeding is to take place the choice of a 'conservation mix' of grass seed would be preferential. The management of grassland areas as hay meadows, without use of herbicides/fertilisers and allowing the grass to go to seed prior to cutting is beneficial in allowing larval stages of the insects to develop.