



Preliminary Ecological Appraisal

Oldlands Farm, Newlands Road, Bognor Regis PO22 6NN

Presented to Lysander Associates

Issued: May 2021

Delta-Simons Project No. 20-1543.05



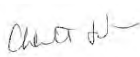
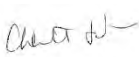
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Report Details

Client	Lysander Associates
Report Title	Preliminary Ecological Appraisal
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Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
4	Final	21 st May 2021	Red line boundary change			
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Executive Summary

Scope of Works	Delta-Simons Environmental Consultants Ltd was instructed by Lysander Associates ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of land at Oldlands Farm, off Newlands Road, to the north of Bognor Regis in West Sussex (the Site'). The PEA comprised a Phase 1 Habitat Survey and protected species assessment, which was completed on 17 th March 2021. The survey was undertaken to inform a planning application for the Site.
Current Site Status	The southern parcel of the Site is characterised by predominantly poor semi-improved grassland bisected and / or bounded by lengths of drainage ditches, fencing and hedgerow. In the northern extent of the Site was an area of bare ground, whilst scattered trees were found in the western area of the central field. At the south-western extent of the Site was an area of standing water, whilst scattered scrub ran inside the eastern boundary fence. A large expanse of land set to arable comprised the majority of the parcel of land to the north of the A259. In the western extent of this parcel, a poor semi-improved grassland field margin ran inside the boundary.
Proposed Development	It is understood that the proposed development will comprise the erection of a warehouse (Use Class B8) with ancillary office, associated vehicle parking, van storage, plant, ancillary structures, lighting, landscaping, and infrastructure works, including earthworks to facilitate a flood compensation area.
Results: Habitats on-Site	The following habitats are found on the Site: ▲ Scattered broadleaved trees; ▲ Scattered scrub; ▲ Poor semi-improved grassland; ▲ Arable; ▲ Wet ditch; ▲ Dry ditch; ▲ Standing water; ▲ Spoil; ▲ Ephemeral/ short perennial; and ▲ Bare ground.
Habitats Adjoining the Site	Further arable can be found directly north of the Site; to the east by the Bognor Regis to Barnham railway line; and to the south by industrial units associated with the Rolls Royce Warehouse 1. Further to the north, east and west, the landscape is largely rural, supporting predominantly agricultural fields, with a golf course, and the Lidsey Rife watercourse; whilst further to the south the landscape becomes more urban, with a business retail park on the outskirts of the main town.
Potential for Protected/Notable Species	The scattered broadleaved trees and limited scrub provide nesting opportunities for birds, although no evidence of recent nesting activity was recorded at the time of the survey. Ground nesting bird species were recorded at the time of the survey, such that the arable, grassland and ditches may be utilised by them for breeding. The southern parcel of land at the Site provides suitable habitat for reptile species with a mosaic of habitat formed from the grassland, ephemeral and scrub, with the dry river basin and off-Site railway offering dispersal opportunities to the Site. Furthermore, a small population of slow worm has previously been recorded at the Site. Land along

	the dry ditch adjacent to the northern parcel of land offers limited opportunities for reptiles. All five trees in the southern parcel of land at the Site were assessed as having Bat Roost Potential (BRP), two of high potential, two moderate and one low. The row of tree adjacent to the northern parcel were assessed as offering low BRP. The scattered trees, scrub, drains, and hedgerows on the boundaries in the southern parcel provide ideal foraging and commuting habitat and also connect the Site to the wider area. To the north, the parcel is more exposed and foraging opportunities are limited due to the large expanse of arable, apart from the treeline along the dry ditch and the grassland field margin. Overall, the Site was assessed as having low potential for foraging and commuting bats. The Site did not support any evidence to indicate badgers were actively using or inhabiting it, however, evidence of badgers was recorded immediately off-Site in the south and during previous surveys at the Site, and there is a suitable habitat for the species on-Site for foraging and sett building. Whilst no evidence was recorded at the Site, otter may be present within the local area and they may use the on-Site drains for commuting or foraging as part of a wider network of waterways. The wet drains were considered to be sub-optimal for water vole, known to occur locally to the Site, during the initial checks carried out on the drains. The Site has potential to support brown hare, hedgehog and roe deer, and the latter have been recorded on-Site.
Requirement for Further Surveys	The findings of the initial Site assessment have identified habitat or potential for breeding birds, reptiles, roosting and foraging bats, badger, and water voles. As such, surveys to identify the species present, and their associated distribution and densities, are recommended to inform the development proposals. These surveys are listed in Section 6.1 of this Report and are currently ongoing.
Construction and Operational Phase Recommendations and Enhancement Measures	The detailed recommendations set out within the Report are summarised below: <u>Nesting Birds</u> If clearance works are to be undertaken of the scrub, scattered broadleaved trees, arable and grassland, these should be performed either before early March or after late August in order to avoid the main bird nesting season. Conflict with the development can be avoided by clearing the Site of any suitable bird nesting habitat outside of the breeding period in advance of any proposed works. If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works. <u>Bats</u> <i>Tree with low BRP</i> ▲ Any proposed felling or management works to Tree (T)1 and Tree Group (TG)6 should be completed under a method statement which could include a single dawn survey completed during the active bat season (April-October, inclusive) on the morning prior to the works being undertaken; or alternatively ▲ A licenced bat ecologist trained to use specialist tree climbing equipment could undertake a thorough inspection of the potential roost features immediately prior to works commencing. <i>Lighting</i> The detailed lighting design for the Site should be functional and directional and in line with current guidance, full details of which can be found in Section 6.2 of this Report.

	<u>Badger</u> A pre-commencement survey should be undertaken for badger to check for sett entrances. <u>Badger, Otter & Hedgehogs</u> As is general good practice for Sites where these species may occur, it is recommended that no excavations or trenches are left uncovered overnight during the development works in order to prevent any badgers from becoming trapped. Alternatively, ramps can be provided to enable them to climb out of trenches or excavations. Site Enhancements A list of recommendations to enhance the biodiversity of the Site are found in Section 6.0 of this Report.
This Preliminary Ecological Appraisal Executive Summary is intended as a summary of the assessment of the Site based on information received by Delta-Simons at the time of production. This Executive Summary should be read in conjunction with the full Report.	

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1.0 Introduction

1.1 Purpose and Scope of the Survey

Delta-Simons Environmental Consultants Ltd was instructed by Lysander Associates ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of land at Oatlands Farm off Newlands Road, to the north of Bognor Regis, in West Sussex (hereafter referred to as the "Site"). In addition, public land immediately surrounding the Site was surveyed, where access allowed. It is understood the survey works are to be undertaken to inform a planning application for the development of a ground level car park inside a new warehouse at the Site.

The aims of the PEA were to:

- ▲ Identify habitat types on the Site using the standard methodology devised by the Joint Nature Conservation Committee (JNCC, 2010);
- ▲ Identify areas of potential for protected species/species of conservation concern within the Site;
- ▲ Identify areas of potential for protected species/species of conservation concern immediately outside the Site;
- ▲ Identify any invasive plant species included within Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ Prepare a Phase 1 Habitat Plan of the Site; and
- ▲ Propose recommendations for further surveys, where appropriate.

The Site location and the Site red line are shown in Figure 1.

1.2 Site Description

The Site is centred at Ordnance Survey (OS) grid reference SU 94547 01837, to the north of Bognor Regis in West Sussex. The wider Site covers an area of 18.87 hectares (ha), of which the southern parcel comprises 7ha, and is characterised by predominantly poor semi-improved grassland bisected and / or bounded by lengths of drainage ditches, fencing and hedgerow. In the northern extent of the Site was an area of bare ground, whilst scattered trees were found in the western area of the central field. At the south-western extent of the Site was an area of standing water, whilst scattered scrub ran inside the eastern boundary fence. A large expanse of land set to arable comprised the majority of the parcel of land to the north of the A259. In the western extent of this parcel, a poor semi-improved grassland field margin ran inside the boundary. This parcel covers an area of 11.87 ha.

Further arable land can be found to the north; to the east by the Bognor Regis to Barnham railway line; and to the south by industrial units associated with the Rolls Royce Warehouse 1. Further to the north, east and west, the landscape is largely rural, predominantly agricultural fields, with a golf course, and the Lidsey Rife watercourse; whilst further to the south, the landscape becomes more urban, with a business retail park on the outskirts of the main town.

The Site layout is shown in Figure 2.

1.3 Proposed Development

It is understood from the drawing provided by the Client that the proposed development comprises the erection of a warehouse (Use Class B8) with ancillary office, associated vehicle parking, van storage, plant, ancillary structures, lighting, landscaping, and infrastructure works, including earthworks to facilitate a flood compensation area.

2.0 Legislation & Policy Summary

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- ▲ National Planning Policy Framework (NPPF, 2019);
- ▲ The Conservation of Habitats and Species Regulations 2017 (as amended);
- ▲ The Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ The Countryside and Rights of Way (CRoW) Act 2000;
- ▲ The Natural Environment and Rural Communities Act (NERC) 2006;
- ▲ The Hedgerow Regulations 1997; and
- ▲ The Protection of Badgers Act 1992.

Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species. The legislation surrounding each faunal or floral species or group is provided in Appendix A and references are included in Appendix B.

3.0 Methodology

The PEA has been undertaken to the following current guidance: CIEEM (2017), Guidelines for Preliminary Ecological Appraisal; and BS 42020: 2013 Biodiversity. Code of Practice for Planning and Development.

3.1 Desk Study

3.1.1 Data Search

A data search was undertaken to identify statutory and non-statutory designated sites and records of protected and notable species.

In March 2021, available records of protected and notable species were collated from the local record centre, Sussex Biodiversity Record Centre (SxBRC). In addition, the non-statutory designated sites within a 2 km radius of the Site centre. A search for international statutory designated sites for nature conservation within 6 km of the Site was undertaken, together with a search for national statutory designated sites for nature conservation within 2 km of the Site centre, using the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

In addition, free and publicly accessible Ordnance survey maps and aerial photographs were searched for waterbodies on, or within, 500 m of the Site boundary. This information has been used to assess the Site for its potential for amphibians, the results of which are found in Section 4.3.

3.1.2 Review of Previous Surveys

Where available, information was gathered on any previous ecological surveys that have been conducted at the Site. The following survey report was reviewed:

- ▲ Ecology Appraisal –Land at Oldlands Farm Phase 2, Bognor Regis, September 2015, Aluco Ecology Ltd.

3.2 Survey

The habitats on the Site, were surveyed on 17th March 2021 by two Delta-Simons ecologists. Since access was not permitted to the surrounding land, it was visually assessed from the Site boundary.

The following was undertaken during the survey:

- ▲ Habitats were classified and mapped using the standard JNCC Phase 1 habitat classification and methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of Stace (2010);
- ▲ Terrestrial habitats on-Site were surveyed for the presence of, or potential for the following protected or notable species:
 - ▲ Birds: All species with special reference to key species (such as those on Schedule 1 of the WCA, 1981 (as amended), England Biodiversity Priority Species (EBP) (previously UK Biodiversity Action Plan (UKBAP) species) and Birds of Conservation Concern (BoCC) (Eaton et al., 2015);
 - ▲ Amphibians: Great Crested Newt (GCN) *Triturus cristatus*, smooth newt *Lissotriton vulgaris* and palmate newt *Lissotriton helveticus*.
 - ▲ Reptiles: common lizard *Zootoca vivipara*, adder *Vipera berus*, slow worm *Anguis fragilis* and barred grass snake *Natrix helvetica*; and
 - ▲ Mammals: bat (all species) and badger *Meles meles*.
- ▲ Aquatic habitats were assessed for their potential to support, and any signs of otter *Lutra lutra*, water vole, *Arvicola amphibius* white clawed crayfish *Austropotamobius pallipes*, GCN, and barred grass snake; and
- ▲ Widespread terrestrial and aquatic invasive species listed on Schedule 9 of the WCA 1981 (as amended) were recorded. These are Japanese knotweed, *Fallopia japonica* giant knotweed *Fallopia sachalinensis* hybrid knotweed, *Fallopia baldschuanica*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, and New Zealand pygmyweed *Crassula helmsii*.

3.2.1 Birds

Visual and/or audible identification was made of any birds on the Site or flying over the Site during the survey period. Suitable habitat was, where possible, inspected and any evidence of old nesting activity was recorded.

3.2.2 Amphibians

The terrestrial habitats at the Site were assessed for their potential to support amphibian species and a desk search was undertaken (see Section 3.1). Where access allowed, a GCN HSI assessment was carried out to evaluate the suitability of the waterbodies and their adjoining habitats for GCNs (Oldham et al., 2000). The calculated HSI score for a pond scores between 0 and 1 and is derived from an assessment of ten habitat variables known to influence the presence of newts. The HSI is categorised such that the closer to a score of 1 it is then the more suitable a pond is to support GCNs. The HSI is calculated on an individual pond basis but takes into account surrounding terrestrial habitat and local pond density. Table 1 illustrates the categorisation of HSI scores.

Table 1 - Categorisation of HSI Scores

HSI Score	Pond Suitability for GCN
< 0.5	Poor
0.5 - 0.59	Below average
0.6 - 0.69	Average
0.7 - 0.79	Good
>0.8	Excellent

3.2.3 Reptiles

A cold-searching method was employed which involved identifying suitable habitats for reptiles within areas on-Site and immediately off-Site. Natural and artificial refugia (logs, large debris and so on) were lifted and examined for the presence of reptiles and their field signs (such as shed skins).

3.2.4 Bats

The Site was assessed for its suitability to support roosting and foraging bats (see Appendix C).

3.2.5 Badgers

The Site was inspected for signs of badger activity, including sett entrances, latrines, footprints, runs through vegetation, guard hairs caught on fences and snuffle holes, and its suitability to support this species assessed.

3.2.6 Otters

Suitable habitats for otter on-Site and immediately off-Site were identified and assessed.

3.2.7 Water Voles

Suitable habitats for water vole on-Site and immediately off-Site were identified and assessed.

3.2.8 Other Protected or Notable Species

Where applicable, during the survey, evidence was recorded of any other protected or notable species, including England Biodiversity Priority (EBP) species. Habitats with the potential to support additional protected or notable species were also recorded, if present, during the survey.

3.2.9 Invasive Species

The occurrence of any invasive plant species on the Site was identified in terms of species and stand size.

3.2.10 Hedgerows

An assessment of any hedgerows at the Site, which will be adversely affected by the proposed development, was undertaken using the standard hedgerow survey methodology outlined in the Hedgerow Regulations 1997. The purpose of the assessment was to ascertain whether the hedgerows are classified as 'nationally important' and, therefore, protected under the Hedgerow Regulations 1997. The assessment involves a scoring system which relies on particular features, number of woody and floral species present within the hedgerow habitat, and the age of the hedgerow.

3.2.11 Limitations to the Survey

The survey was completed in March, when plant species identification was limited due to winter die-back. Invasive plant species, such as Himalayan balsam, as well as very small/new stands of Japanese Knotweed/Giant Hogweed, may not have been apparent at this time of year.

Ground level assessments of trees may identify apparent potential roosting features (PRFs) at height, which closer inspection may reveal to be only superficial in extent or otherwise unsuitable for bats; conversely, cryptic PRFs at height may only be visible during an up-close inspection and may therefore be missed by a ground-based assessment. Categorisation of a given tree as having Low/Moderate/High potential to support a bat roost may be revised up or down following an at-height/climbed inspection.

4.0 Results

4.1 Desk Study

The pertinent information from the data search is set out below for designated sites, whilst species are discussed in the relevant species sections.

4.1.1 Designated Sites

The results of the MAGIC data search indicate that there are no international statutory designated sites within 6 km of the Site. There is one statutory designated site within 2 km of the Site centre, the Brooks (Bersted Brooks) Local Nature Reserve (LNR), located 520 m south-west of the Site boundary, across the A29. The LNR is designated for areas of meadow, narrow reedbeds and ditches, permanent and temporary ponds, and an extensive newly planted floodplain woodland. The Brooks floods every winter, making it a good place for wetland wildlife.

There were no non-statutory designated sites within 2 km of the Site centre, however, part of the Site is designated as coastal and floodplain grazing marsh, which is listed as a Section 41 Habitat of Principal Importance, under the NERC Act.

4.1.2 SSSI Impact Risk Zone

The Site falls within the Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) for Bognor Reef SSSI, located 3.14 km south of the Site boundary, for which the Local Planning Authority (LPA) is required to consult Natural England (NE) on the likely risks from the following development proposals:

- ▲ Airports, helipads, and other aviation proposals;
- ▲ Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t;
- ▲ General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

The criteria listed are not relevant to the development proposals, such that impacts on the IRZ are not considered further in this Report.

4.1.3 Review of Previous Surveys

The ecological appraisal conducted by Aluco Ecology in 2015 covered the southern parcel of land and recorded arable on-Site, with drains and lengths of hedgerow and dense thicket were present. The Report assessed the Site as being suitable for nesting birds, roosting, and commuting bats, badgers, reptiles, otters, and brown hare. Water vole was not recorded on-Site during survey works, however, reference is made to the minor watercourse on the south-western boundary where they were recorded in 2014 by another consultancy. A badger latrine was recorded on-Site during the surveys. Reptiles were recorded to be on-Site, with a small population of slow worm present.

4.2 Survey

4.2.1 Habitats on Site

The Site is characterised by predominantly arable to the north with a row of trees along a dry drain and poor semi-improved grassland to the south, bisected and / or bounded by lengths of drainage ditches, fencing and hedgerow. In the northern extent of the Site was an area of bare ground, whilst scattered trees were found in the western area of the central field. At the south-western extent of the Site was a pond, whilst scattered scrub ran inside the eastern boundary fence.

Figure 2 shows the extent of habitat types and boundary features. Descriptions of the habitat types and dominant plant species found at the Site are provided below. Habitat descriptions are by broad habitat type, as listed in the Phase 1 Habitat Survey Manual (JNCC, 2010). Photographs of the Site survey are located in Appendix D.

Habitats recorded on Site are:

Scattered Broadleaved Trees

Four mature oak *Quercus robur* trees and a large willow *Salix* sp. coppice-stool were located near the western boundary of the southern parcel of the Site, in association with ditches (Photograph 1).

Scattered Scrub

A line of low/scattered scrub, comprising mainly bramble *Rubus fruticosus* agg., as well as hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa*, was located outside and adjacent to the eastern Site boundary of the southern parcel of land with the railway line.

There was evidence of scattered scrub previously growing along the banks of the ditches (TN1) however, this had been recently flailed/ strimmed to ground level (Photograph 2).

Poor Semi-Improved Grassland

Most of the southern parcel of the Site and the western field margins of the arable field to the north were poor semi-improved grassland (Photograph 3a) with a short sward. Species included perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata*, with ruderals comprising broadleaved dock *Rumex obtusifolia*, and spear thistle *Cirsium vulgare*.

The boundaries of the fields had a more complex collection of forb species, with cleavers *Galium aparine*, cut-leaved cranesbill *Geranium dissectum*, harts tongue fern *Asplenium scolopendrium*, lord and ladies *Asplenium scolopendrium*, Birdseye speedwell *Veronica persica*, red dead nettle *Lamium purpureum*, and sun spurge *Euphorbia helioscopia*, and the ruderal common nettle *Urtica dioica*. Bramble was also encroaching into the grassland from the boundaries.

The grassland in the south-western extent of the Site was more rank than the other fields on-Site (Photograph 3b), with a broadly similar species diversity, with the addition of teasel *Dipsacus fullonum*, as well as rushes *Juncus* sp., and reeds *Phragmites* sp. The area was noticeably wetter than the rest of the Site.

Arable

A large area of arable sown with wheat *Triticum* sp. formed the majority of the northern parcel of the Site.

Ditches

At the time of the survey, five of the drainage ditches in the southern parcel held water and one was largely dry, with the exception of dampness/pooling at the northern and southern ends (Photograph 1).

Standing Water

There was a shallow area of standing water in the southern extent of the southern parcel, which was fed by a continuation of ditches, connected to D2.

Spoil

A large spoil mound was located in the southern parcel, which had extensive bramble scrub.

Ephemeral Vegetation

The northern extent of the southern parcel of the Site was almost exclusively dominated by a low cover of bristly ox-tongue *Helminthotheca echioides*, with common ragwort *Senecio vulgaris*, and mallow *Malva sylvestris* also recorded (Photograph 4).

Bare Ground

The northern area of the southern parcel appeared to have formerly been arable and semi-improved grassland, that had experienced extensive die-back, possibly due to a flooding episode. The ground in this part of the Site

was sodden at the time of the survey, and the remains of dead grasses had the appearance of it having been subject to prolonged flooding (Photograph 5).

4.2.2 Habitats Immediately Surrounding the Site

The Site is bounded to the north by further arable; to the east by the Bognor Regis to Barnham railway line; and to the south by industrial units associated with the Rolls Royce Warehouse 1. Further to the north, east and west, the landscape is largely rural, dominated by agricultural fields, with a golf course, and the Lidsey Rife watercourse; further to the south, the landscape becomes more urban, with a business retail park on the outskirts of the main town.

4.3 Notable and Protected Species Assessment Relevant to the Site

Birds

The data search identified 20 species of birds currently listed on Schedule 1 of the WCA (1981) as amended, within 2 km of the Site centre in the past ten years which included several waders and waterfowl, kingfisher *Alcedo atthis*, and little ringed plover *Charadrius dubius* potentially utilising the Site for foraging or nesting, whilst hobby *Falco subbuteo*, merlin *Falco columbarius*, and barn owl *Tyto alba* may utilise the Site for hunting, with the potential to nest in the scattered trees. A further 24 species of birds currently listed on the Red List of BoCC (Eaton et al., 2015), were recorded within 2 km of the Site centre in the past ten years, of which those most likely to utilise the habitats on-Site included skylark *Alauda arvensis*, whinchat *Saxicola rubetra*, yellow wagtail *Motacilla flava*, starling *Sturnus vulgaris*, song thrush *Turdus philomelos*, mistle thrush *Turdus viscivorus*, house sparrow *Passer domesticus*, grey partridge *Perdix perdix*, corn bunting *Emberiza calandra*, and common ringed plover *Charadrius hiaticula*.

Habitats featured on the Site suitable for nesting birds include scattered broadleaved trees, limited areas of scrub and ephemerals, in addition to the expanse of arable in the northern parcel and grassland in the south for ground nesting birds and the vegetated ditches for waterfowl. No bird nesting activity was observed at the time of the inspection. Moorhen *Gallinula chloropus* footprints were evident in the mud associated with the banksides.

A pair of skylarks were recorded on-Site during the Survey (TN2), which are listed on the Red List of BoCC. No birds listed on Schedule 1 were recorded on-Site at the time of the survey. It should be noted that this is not a comprehensive inventory of the bird species which may be present at the Site.

Great Crested Newts

There was a single record of GCN from 2016, approximately 1.39 km east of the Site boundary, with records of smooth and palmate newts from the same pond. The Site is fragmented from the records by the A259, and Bognor Regis Golf Club.

A review of aerial photographs and OS maps revealed that there is an area of standing water on-Site (Pond 1), but no further ponds within 500 m of the Site to support breeding amphibians. There are several interconnecting drains in the wider area. The grassland, scattered scrub and banks of the ditches provided suitable terrestrial habitat for GCN and are well connected to further habitat in the wider area. The railway line to the east of the Site is not considered to be a major distribution barrier for the species. Given that the majority of the northern parcel of land comprises arable and bare ground, this is not considered ideal to support GCNs

Pond 1 was located in the southern extent of the Site (Photograph 7), and has been dug out since the previous ecological survey works were completed in 2015. The pond held approximately 100 m² of water, with a depth of < 1 m, at the time of the survey, and was vegetated with reeds *Phragmites* sp., with minimal submerged aquatic vegetation.

Table 2 - Results of HSI Assessment

Variables of Habitat Suitability Index Assessment		Pond 1
SI ¹	Pond location	1
SI ²	Pond area	0.2
SI ³	Pond drying	0.5
SI ⁴	Water quality	0.33
SI ⁵	Shade	1
SI ⁶	Waterfowl	1
SI ⁷	Fish	1
SI ⁸	Ponds	0.2
SI ⁹	Terrestrial habitat	0.67
SI ¹⁰	Macrophytes	0.5
Habitat Suitability Index		0.54
Habitat assessment - suitability for GCNs		Below Average
Need to undertake further GCN survey		No

The on-Site waterbodies were considered suitable as breeding habitat potentially for common amphibians (common frog and common toad). Given the lack of recent records, and the distance of the nearest records to the Site, coupled with the fact that the on-Site pond has been built recently and its HSI score being 'below average', GCNs are not considered further in this Report.

Reptiles

There were a total of thirteen records of reptiles within 2 km of the Site centre in the past ten years, including common lizard, slow worm and grass snake, with the closest and most recent records for all three species located 310 m north-east of the Site boundary, in fields on the opposite side of the railway line to the Site. In 2015, Alauda Ecology recorded a small population of slow worm on-Site.

There was no evidence of reptiles on-Site at the time of the survey; however, the survey was constrained by the time of year and the lack of existing/natural refugia that could be feasibly searched. Natural existing refugia that were checked included small/medium-sized logs, as well as debris, including discarded plastic fencing panels and concrete slabs, along the eastern boundary, as well as discarded roofing felt tiles outside the northern boundary. Most of these were too bedded in to be suitable for use by reptiles.

The southern parcel of the Site and its immediate surroundings were considered to offer good potential habitat for a variety of reptiles and amphibians. The boundary/internal boundary habitats, including the northern, eastern, and southern boundaries, as well as the rubble/ spoil/ brash piles (TN3, Photograph 7) offer foraging, shelter, basking and hibernation opportunities. The on-Site and nearby off-Site drains also offer foraging opportunities for grass snakes.

Bats

There were six species of bats recorded within 2 km of the Site centre in the past ten years, with further records of unidentified species of bats, which were as follows.

- ▲ Seven records of common pipistrelle *Pipistrellus pipistrellus*, between 2011 and 2016, the closest of which was 220 m south of the Site boundary in 2014, whilst the most recent of which was 610 m north of the Site boundary;
- ▲ Two records of soprano pipistrelle *Pipistrellus pygmaeus*, in 2014 and 2016, the closest of which was 620 m south-west of the Site boundary in 2014, whilst the most recent record was 720 m north-west of the Site boundary;
- ▲ Eight records of western Barbastelle *Barbastella barbastellus*, all from 2015, the closest of which was 900 m east of the Site boundary;
- ▲ Two records of noctule *Nyctalus noctula*, in 2014 and 2016, the closest of which was 220 m south of the Site boundary in 2014, whilst the most recent record was 720 m north-west of the Site boundary;
- ▲ One record of serotine *Eptesicus serotinus*, from 2015, 220 m south of the Site boundary; and
- ▲ One record of brown long-eared bat *Plecotus auritus*, from 2015, 220 m south of the Site boundary.

There were three records of roosts within 2 km of the Site centre, all of which were common pipistrelle roosts located within private properties, the largest of which, located 790 m north-west of the Site boundary recorded 14 individuals.

The Site was lacking in substantial tall/woody vegetation cover / shelter overall; however, the ditch network within and around the Site, as well as the vegetated railway corridor adjacent to the eastern boundary, was considered to offer good foraging/commuting potential for bats, whilst the expanse of arable in the northern parcel are of limited suitability. Overall, therefore, the Site was assessed as offering low habitat suitability for bats

There were five trees within the southern parcel and a row of trees in the northern parcel that were assessed for their potential to support roosting bats, details of which were as follows:

- ▲ Tree 1 (T1, Photograph 8) was a mature oak with minor ivy coverage, callus rolls, lifted bark and hollows. There was a partially healed tear on the northern aspect and a split limb on the eastern aspect. It was assessed as having **Low BRP**.
- ▲ Tree 2 (T2, Photograph 9) was a mature oak tree with a large split on the southern aspect of the main trunk, with a horizontal split in a limb and a minor callus also noted. It was assessed as having **High BRP**.
- ▲ Tree 3 (T3, Photograph 10) was a mature oak tree with rot, calluses, and tears on both the northern and southern aspects. The trunk was possibly hollow based on the condition, resulting in it being assessed as having **High BRP**.
- ▲ Tree 4 (T4, Photograph 11) was mature oak tree with tears and calluses on the southern and northern aspects, with lifting bark also noted. It was assessed as having **Moderate BRP**.
- ▲ Tree 5 (T5, Photograph 12) was a mature coppiced willow, with extensive hollows and splits throughout the main trunk. It was assessed as having **Moderate BRP**.
- ▲ Tree Group 6 (TG6), a row of semi mature willow adjacent to the eastern boundary of the northern parcel of land, with several trees assessed to support a low number of suitable bat roosting features such that they were assessed as having **Low BRP**.

Badgers

Records of badgers are sensitive and were not provided within the data search, the records are held by the local badger group, should further surveys be required then the records will be required.

The Site did not support any evidence to indicate that badgers were using or inhabiting it. A partially submerged large burrow was recorded on northern bank of Ditch 4 (TN4). There were no latrines, snuffle holes, mammal runs, or badger dung found within the survey area. There was a latrine recorded outside of the boundary fencing

(TN5, Photograph 13a). The habitats found on-Site are suitable for the species and the Site is connected to suitable off-Site habitat to the north and east, with the railway line and drains providing corridors for distribution. It is possible the Site forms part of a larger badger territory.

The spoil mound in the southern extent of the southern parcel had a covering of bramble scrub with a large burrow identified beneath it that could not be closely inspected. It was anticipated to be fox *Vulpes vulpes* (Photographs 13a & 13b). There was no clear mammal run to it.

Otters

Records of otters are sensitive within Sussex, as they are a recovering species, and as such were not provided within the data search.

No evidence of otter was recorded on-Site at the time of the survey. The drains providing low suitability for otter, which are a rare but recovering species in Sussex. The drains on-Site could act as commuting corridors for the species and are functionally connected to the nearby Lidsey Rife and Aldingbourne Rife.

Water Voles

There were 30 records of water vole within 2 km of the Site centre between 2012 and 2015, with the closest and most recent record approximately 225 m south of the Site boundary, which was recorded during survey work for the A29 extension. There were further records from the Lidsey Rife, approximately 265 m east of the Site boundary, which are functionally connected to the on-Site drains, which are culverted under the adjacent railway line.

Ditch 1 (D1, Photograph 14) was located off-Site adjacent to the southern boundary of the southern parcel, running for approximately 210 m, and was heavily shaded from a nearby warehouse. The banks were approximately 2 m wide, with the substrate consisting of soil and rubble. The water was approximately 30 cm deep, and the bankside vegetation had been recently trimmed, and consisted of bramble and nettle *Urtica dioica*, with grasses. Starwort *Callitriche* sp. and watercress *Nasturtium officinale* were recorded within the channel, which was approximately 50% vegetated. Small mammal burrows and rabbit *Oryctolagus cuniculus* warrens were recorded.

Ditch 2 (D2, Photograph 15) was located on a small section of eastern boundary in the southern extent of the southern parcel, running for approximately 80 m. The banks were between 1 – 2 m wide, with the substrate consisting of soil. The water was approximately 50 cm deep, and the bankside vegetation had been recently trimmed, and consisted of bramble and nettle, with grasses. Starwort and watercress were recorded within the channel, which was approximately completely covered by vegetation. No evidence of water vole was recorded in the drain.

Ditch 3 (D3, Photograph 16) was located in the western extent of the southern parcel, running for approximately 180 m. The ditch was mostly dry at the time of the survey, with bankside vegetation consisting of bramble, nettle and grasses which had been recently flailed. There was a large area of pooled water at the northern end of ditch D3, located under the road bridge (TN6). Algal scum was the only aquatic vegetation recorded. Small and medium mammal burrows were recorded along the ditch.

Ditch 4 (D4, Photograph 17) was located in the centre of the southern parcel, running for approximately 150 m. The banks were between 50 cm wide, with the substrate consisting of soil, there was an area of ephemeral water associated with the south-eastern extent of the drain (TN6). The water was approximately 30 cm deep, and the bankside vegetation had been recently trimmed, and consisted of bramble and nettle, with grasses and reeds. Algal scum was the only aquatic vegetation recorded. Small and medium mammal burrows were recorded along the ditch.

Ditch 5 (D5, Photograph 18) was located in the northern extent of the southern parcel, running for approximately 90 m. The banks were between 30 cm wide, with the substrate consisting of soil. The water was approximately 30 cm deep, and the bankside vegetation had been recently trimmed, and consisted of bramble and nettle, with grasses. Algal scum was the only aquatic vegetation recorded. Small mammal burrows and rabbit warrens were recorded.

Ditch 6 (D6, Photograph 19) was located in the northern extent of the southern parcel, running for approximately 30 m. The banks were between 30 cm wide, with the substrate consisting of soil. The water was approximately 20 cm deep, and the bankside vegetation had been recently strimmed, and consisted of bramble and nettle, with grasses and reeds. Algal scum was the only aquatic vegetation recorded. No evidence of water vole was recorded in the drain.

Ditch 7 (D7, Photograph 20) was a continuation of D2, located off-Site to the south of the Site, running for approximately 135. The banks were between 1 – 2 m wide, with the substrate consisting of soil. The water was approximately 50 cm deep, and the bankside vegetation had been recently strimmed, and consisted of bramble and nettle, with grasses. Starwort and watercress were recorded within the channel, which was approximately completely covered by vegetation.

Ditch 8 (D8, Photograph 21) was located off-Site to the south-west, running for approximately 160 m, it was largely dry but held water at the northern extent. The ditch was scrubbed up with willow *Salix* sp. saplings and teasel.

Ditch 9 (D9, Photograph 22) was located off-Site to the west of the southern parcel, and ran for approximately 120 m. It appeared to be part of a Sustainable Urban Drainage System (SuDS), with sloped grassy banks. It held water at the southern extent but was dry to the north.

A short length of Ditch 10 (D10) was located on the eastern boundary of the northern parcel. The ditch did not support any water at the time of the survey. A row of willow trees, with bramble scrub below, was present on the banks, with nettle and broadleaved dock also present.

No evidence confirming the presence of water voles was found, and the habitat at the time of survey was considered largely sub-optimal.

Other Protected Species

The habitats on-Site, both in the north and south, were considered suitable for brown hare *Lepus europaeus*, which have been recorded 1.35 km west of the Site boundary in 2018, whilst habitats within the southern parcel were considered suitable for west European hedgehog *Erinaceus europaeus*, recorded five times within 2 km of the Site between 2015 and 2019.

A pair of roe deer *Capreolus capreolus* were recorded on-Site in the southern parcel during the survey.

Invasive Species

There was a single record of giant hogweed from 2015, approximately 1.5 km south-west of the Site boundary. There was no evidence of invasive species found on-Site at the time of the survey.

5.0 Evaluation

Designated sites-statutory sites/non-statutory sites

The only statutory designated site within the search area is the Brooks (Bersted Brooks) LNR. This is 520 m to the west of the Site and is fragmented from it by the A29, with no terrestrial connectivity. Given its distance from the Site, and the lack of terrestrial connectivity, there is not considered to be any significant impact as a result of the proposed development.

Habitats

The Site comprises predominantly arable to the north and to the south unmanaged poor semi-improved grassland with scattered scrub and trees and a series of drainage ditches. The northern extent of the grassland is designated as coastal and floodplain grazing marsh, which is listed as a Section 41 Habitat of Principal Importance, under the NERC Act. However, given that the Site was previously long-term arable, and now comprises grassland of low floral diversity, it is no longer considered to represent this habitat.

Species

The scattered broadleaved trees, limited scrub, arable, grassland and ditches may be utilised by a range of bird species for breeding, with skylark recorded at the time of the survey. Breeding bird surveys are currently ongoing to establish the species of birds that are utilising the Site for nesting, and their distribution. Mitigation should be put in place to ensure that no nesting birds are disturbed as a result of vegetation clearance to facilitate the proposals. Furthermore, compensatory nesting habitat should be included through the installation of bird boxes on retained trees together with new tree and hedgerow planting to offer shelter and foraging opportunities as part of any future development at the Site.

The grassland provides suitable habitat for reptile species with a mosaic of habitat formed from the grassland, ephemerals, and scrub, with the dry river basin and off-Site railway offering dispersal opportunities to the Site. Reptiles have been recorded in the local area and at the Site during previous survey visits, such that further surveys are currently being undertaken to confirm the presence or likely absence of the species on-Site, so that appropriate mitigation can be put in place, as necessary.

The five trees in the southern parcel were assessed as having BRP, two high, two moderate and one low, and a tree group adjacent to the northern parcel was assessed as having low BRP. Six species of bats have been recorded within 2 km of the Site centre in the past ten years. If the trees are to be removed or impacted as part of the proposed development, there is potential for any bats using these features to be harmed if appropriate mitigation is not implemented. Further surveys to determine the presence or likely absence of roosting bats are currently ongoing. The scattered trees, scrub, drains, and hedgerows on the boundaries provide ideal foraging and commuting habitat and also connect the Site to the wider area, and the Site was assessed as having low potential for foraging and commuting bats. Given these habitats may be lost to facilitate the proposals, activity surveys currently being undertaken to determine how bats use the Site and to inform a sensitive lighting regime.

The Site did not support any evidence to indicate badgers were actively using or inhabiting it, however, evidence of badgers was recorded immediately off-Site and during previous surveys at the Site, and there is a suitable habitat for the species on-Site and in the wider area. If this species does occur locally, it is a possibility that badgers may disperse across the Site. Therefore, precautionary measures will need to be in place during the construction phase of works to ensure that they do not become trapped in any trenches or pits.

Otter may be present within the local area and they may use the on-Site drains for commuting or foraging as part of a wider network of waterways, and although the Site offers no suitable shelter, otter may venture within the Site boundary and protection measures should be in place.

The drains offer sub-optimal for water vole, and the species have been recorded on drains that are functionally connected to the Site. Initial checks carried out on the drains during the survey in March 2021, are not considered sufficient to effectively confirm presence or likely absence of the species on-Site. Further surveys to determine the species presence and any future requirements for mitigation are currently ongoing.

The Site has potential to support brown hare, hedgehog, and roe deer, with records of the former two species, and roe deer has been recorded on-Site during the survey. Whilst brown hare and roe deer will disperse away from any disturbance, mitigation should be put in place to ensure that hedgehogs are not harmed by the proposals.

6.0 Recommendations

6.1 Further Survey Requirement

The findings of the initial Site assessment have identified habitat or potential for breeding birds, reptiles, roosting and foraging bats, badger, and water voles. As such, surveys to identify presence or likely absence of these species are currently ongoing to inform the development proposals. All surveys listed in Table 3 (unless otherwise stated) are to current guidance.

Table 3 - Scope of Ongoing Protected Species Surveys

Species	Scope of Survey	Seasonal Constraints
Breeding Birds	A total of three-monthly morning visits to be made to the Site during the breeding season, with the surveyor walking a single transect route.	Survey March-July, inclusive
Reptile	Population size-class survey, comprising seven visits following the installation and bedding in of refugia across suitable habitat at the Site. The survey would inform of the necessary mitigation to offset any effect of development on reptiles.	Survey during April-October, inclusive, during suitable weather.
Bats	Roost surveys for each of the trees assessed as having High (T2 & T3) or Moderate BRP (T4 & T5). Two nocturnal survey visits for Moderate BRP Trees, with a third nocturnal visit for High BRP Trees, comprising a dusk emergence and a separate dawn return survey, separated by at least two weeks.	Surveys between May – August (inclusive), with at least two weeks between survey visits.
Bats	Site overall has low value to bats. One transect survey per season, and a remote detector left for five consecutive nights per survey, in appropriate weather conditions.	Surveys undertaken in spring, summer, and autumn
Water Vole	It is recommended that a water vole survey be undertaken of all of the drains on-Site, to determine whether or not the species is present on-Site. Up to two surveys may be required ideally one between April – June and a second between July – September.	Surveys can be undertaken between mid-April and September, inclusive.

6.2 Construction and Operational Phase Protection/Enhancement Measures

6.2.1 Species Protection

Nesting Birds

- ▲ If clearance works are to be undertaken of the scrub, scattered broadleaved trees, arable and grassland, these should be performed either before early March or after late August in order to avoid the main bird nesting season.
- ▲ Conflict with the development can be avoided by clearing the Site of any suitable bird nesting habitat outside of the breeding period in advance of any proposed works. If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works.

Bats

Trees with low BRP

- ▲ Any proposed felling or management works to T1 and TG6 should be completed under a method statement which could include a single dawn survey completed during the active bat season (April-October, inclusive) on the morning prior to the works being undertaken; or alternatively
- ▲ A licenced bat ecologist trained to use specialist tree climbing equipment could undertake a thorough inspection of the potential roost features immediately prior to works commencing.

Lighting

The detailed lighting design on Site has been designed to be functional and directional and in line with current guidance (BCT and ILP, 2018); BCT, 2014; Stone, E.L. (2013) through:

- ▲ The use of lights utilising light emitting diodes (LED) without UV elements, therefore reducing the attraction of invertebrates to the lights;
- ▲ Only luminaires with 0 % upward light ratio will be used and fitted on the horizontal to avoid excessive up-lighting, back lighting and light spill onto the western boundary trees;
- ▲ Where possible luminaires will feature peak wavelengths higher than 550 nm to avoid the component of light most disturbing to bats; and
- ▲ The lux level will be between 0 and 2 at sensitive ecological features as this is within the range of natural moonlight.

Badger, Otter & Hedgehogs

- ▲ As is general good practice for Sites where these species may occur, it is recommended that no excavations or trenches are left uncovered overnight during the development works in order to prevent any badgers from becoming trapped.
- ▲ Alternatively, ramps can be provided to enable them to climb out of trenches or excavations.

Badgers

A pre-commencement survey should be undertaken for badger to check for sett entrances.

Site Protection

All works on Site should follow an appropriate working methodology to avoid inadvertent damage to any habitats and associated fauna retained on, or surrounding, the Site. This includes the following:

- ▲ All works should be undertaken in accordance with the UK governments 'Pollution Prevention for Business's' guidance (www.gov.uk); and
- ▲ Where works will impact protected and notable species of flora and fauna a suitable method statement should be incorporated into the Site Construction Environmental Management Plan (CEMP).

General Site Enhancement

Following the issue of the NPPF (2019), by the Ministry of Housing, Communities and Local Government, "*Planning policies and decisions should contribute to and enhance the local environment by (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...*"; and, recommend the following principles of design have been followed:

- ▲ Planting has been designed to enhance retained vegetation and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site. Also, where trees are proposed to be planted, a functional understorey has been included.

7.0 Disclaimer

The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons does not warrant or guarantee that the Site is free of Bats or other protected species.

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This Report, therefore, cannot predict with absolute certainty that animal species will or will not occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

No part of the survey included an assessment of the materials and conditions of any buildings. No part of the survey included an asbestos assessment, nor did it represent an appraisal of other deleterious materials or hazardous substances.

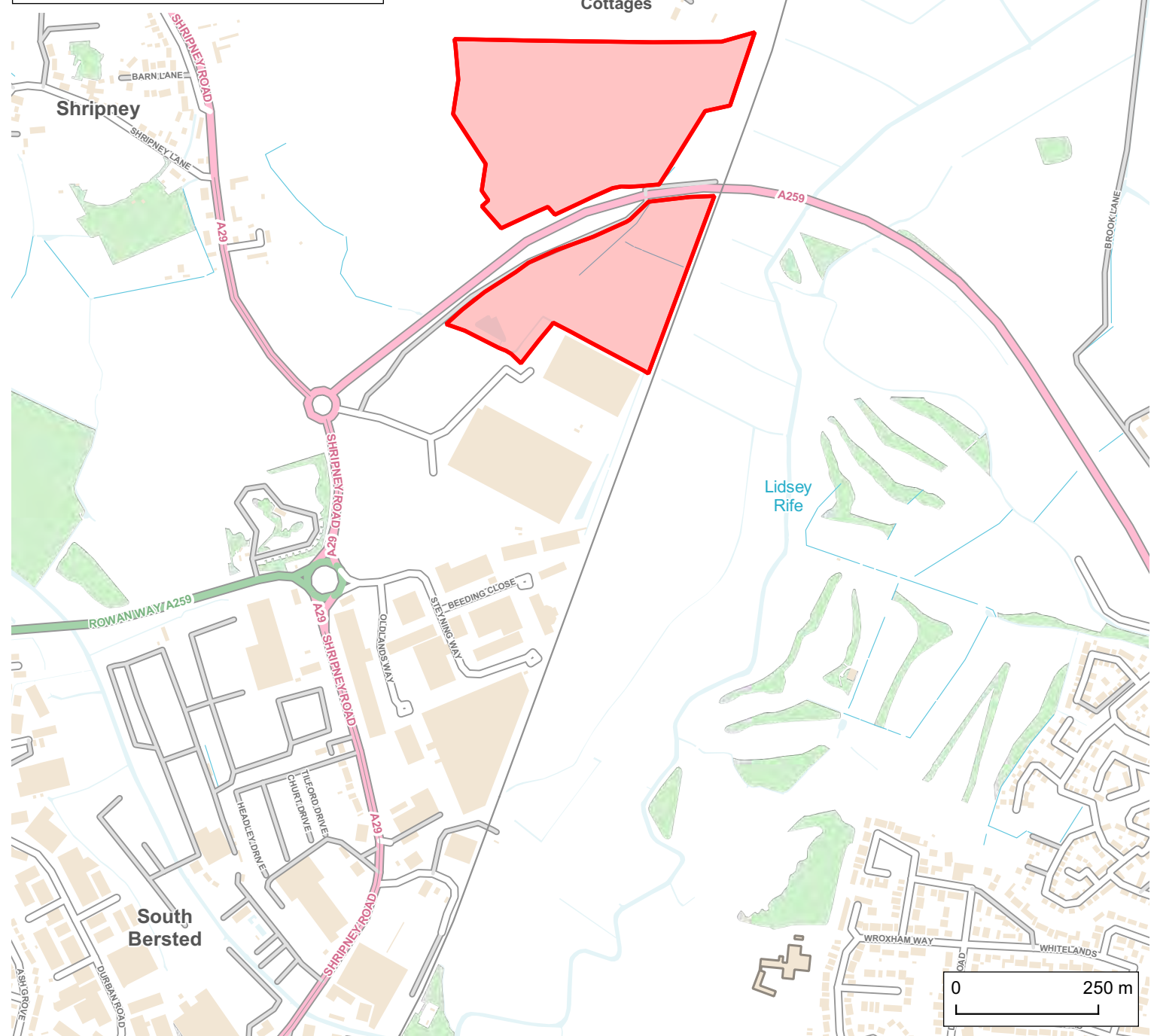
This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.0 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Figure 1 – Site Location Map



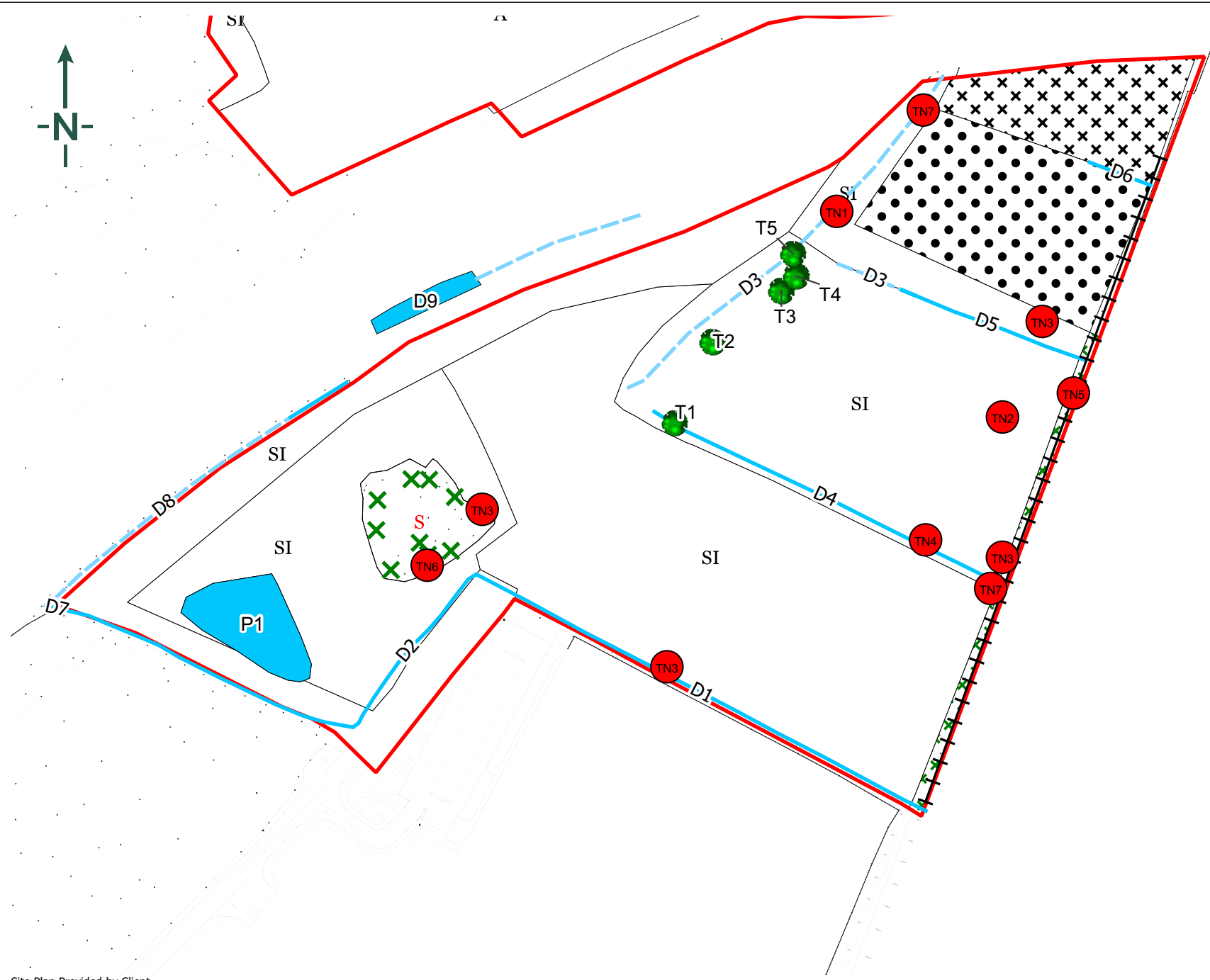
LEGEND

Site Boundary



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Figures 2a-b – Phase 1 Habitat Survey Plan



LEGEND

- Site Boundary
- Scattered broadleaved trees
- Target note
- Wet Ditch
- Dry ditch
- Fence
- Scattered scrub
- Poor semi-improved grassland
- Standing water
- Spoil
- Arable
- Ephemeral/short perennial
- Bare ground

Site Plan Provided by Client



LEGEND

-  Site Boundary
-  Scattered broadleaved trees
-  Target note
-  Wet Ditch
-  Dry ditch
-  Scattered scrub
-  Poor semi-improved grassland
-  Standing water
-  Arable
-  Ephemeral/short perennial
-  Bare ground

Site Plan Provided by Client

TITLE:
Phase 1 Habitat Survey Plan
Bognor Regis, Oldlands Farm
West Sussex

DRAWN BY: CD	SCALE (@A4): 1:3,200	PROJECT NO: 20-1543.05
CHECKED BY: JS	REVISION: -	FIGURE NO: 2b
DATE: 20 May 2021		

Appendix A – Relevant Legislation

Relevant Legislation

National Planning Policy Framework

The revised National Planning Policy Framework (NPPF), sets out, amongst other points, how '*Planning policies and decisions should contribute to and enhance the natural and local environment by:*

"Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity..."

The NPPF states that this should be achieved through local planning development frameworks and gives recommendations for criteria based policies which recognise the hierarchy of designated sites which range from internationally important habitat, to sites of importance at a local level and ensure that protection is "*in a manner commensurate with their statutory status or identified quality in the development plan.*"

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF:

- ▲ "If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- ▲ Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons¹ and a suitable compensation strategy exists;
- ▲ Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; and
- ▲ Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

It is also worth noting that where there are potential impacts upon internationally designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites) as a result of a proposed development, "*The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.*"

In addition, the Office of the Deputy Prime Minister circular 06/2005 remains current. It states that '*The presence of a protected species is a material consideration when a planning authority is considering a development proposal*'. The circular advises that local authorities should consult Natural England before granting planning permission if the proposals could adversely affect a protected species.'

The Conservation of Habitats and Species Regulations 2017, as amended

The Conservation of Habitats and Species Regulations 2017, as amended, are the British response to the Habitats & Species Directive 1992, and consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

The Regulations for the protection of European Protected Species (EPS) have been amended and consolidated with key changes including the removal of most of the defences from Regulation 40 and Regulation 43 including the removal of the 'incidental result of an otherwise lawful operation' defence, and the increase in the threshold for the offence of deliberately disturbing a EPS. Proposals that will affect European protected species may require a licence from Natural England to allow an otherwise unlawful act. In the 2009 a new offence of

¹ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

'breaching condition of an EPS licence' was added to the regulations. The licensing process is separate from and planning process. European protected species include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others.

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

This is the primary legislation covering endangered species in England and sets out the framework for the designation of Sites of Special Scientific Interest (SSSIs). It confers differing levels of protection on species themselves, their habitats or both depending on their conservation status. Species offered protection by the Act are listed in a series of schedules. These Schedules are subject to a rolling review every five years. Protected species are listed under Section 1 (birds), Schedule 5 (animals other than birds and invertebrates) and Schedule 8 (plants).

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. Section 41 (England) list habitats and species of principal importance to the conservation of biodiversity in England. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is against the law to remove or destroy certain hedgerows without permission from the local authority.

Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length more than 30 years old and contain certain species of plant. The authority will assess the importance of the hedgerow using criteria set out in the regulations.

Species

Birds

All wild birds are protected under Section 1 of the WCA 1981 (as amended). Subsection 1(1) makes it an offence to intentionally kill, injure, or take any wild bird; take, damage or destroy the nest of any such bird whilst it is in use or being built; or take or destroy an egg of any such wild bird. It is, furthermore, an offence to either intentionally, or recklessly, disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. The law covers all species of wild birds including common, pest or opportunistic species.

Amphibians

All native amphibians are protected under the WCA 1981 (as amended), with some species also protected under the European Habitats Directive (92/43/EC), transposed in England and Wales through the Conservation of Habitats and Species Regulations 2017. All amphibians are protected from keeping, transporting, selling or exchanging. This means that in practice reasonable measures must be taken to avoid their incidental mortality.

The Great Crested Newt (GCN) is protected under the Conservation of Habitats and Species Regulations 2017 and Schedule 5/9(4)(b) and (c) of the WCA 1981 (as amended). It is an offence to deliberately kill, injure, capture GCN or to deliberately disturb this species, or to intentionally or recklessly obstruct access to their places of shelter or protection, to damage or destroy their breeding sites or resting places, or to intentionally or recklessly disturb a GCN whilst in a place of shelter or protection. The legislation applies to all stages of the life cycle including eggs, larvae and juveniles. It should be noted that GCNs spend the majority of their lives on land,

venturing up to 500 m (but more usually 250 m) from their breeding ponds and as such any ground works within 500 m of a breeding pond could potentially have an adverse effect on GCNs.

Reptiles

All six native species of reptiles are protected under the 1981 WCA (as amended), from intentional killing or injury. As such, all reasonable steps must be taken to avoid their incidental mortality when carrying out works.

Bats

All bats and their resting places are protected under Section 9(4)(b) and (c) of the WCA 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017.

It is an offence to destroy or damage a breeding site or resting place of a bat, to intentionally or recklessly obstruct access to any place of shelter or protection for bats, to deliberately disturb bat species, to intentionally or recklessly disturb a bat whilst in its place of shelter or protection, or deliberately capture, injure or kill a bat. It should be noted that a breeding site or resting place of a bat is protected whether or not bats are present, as long as it is likely that they will return, and any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Badgers

Badgers *Meles meles* and their setts are protected under the 1992 Protection of Badgers Act. Under this Act it is an offence to wilfully kill, injure, take, possess or cruelly ill-treat badgers, or to attempt to do so. It is also an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a sett, or to disturb an occupied sett, either by intent or negligence. When interpreting the Act, Natural England defines a sett as any structure within an area used by badgers that shows signs of having been occupied by badgers within the last 12 months.

Otters

Otter *Lutra lutra* is afforded strict protection under Section 9 of the WCA 1981 (as amended) on Schedule 5 of the WCA 1981 (as amended) and Annex IV of the Conservation of Habitats and Species Regulations (2017). They also receive protection through their inclusion in Schedule 5 of the WCA 1981 (as amended).

Under the legislation, it is an offence to intentionally capture; injure or kill an otter; intentionally or recklessly damage or destroy a breeding site or resting place of an otter; intentionally or recklessly disturb an otter while it is occupying a structure or place which it uses for shelter or protection; obstruct access to any structure or place which it uses for that purpose; possess or control a live or dead animal, or part of; sell, offer for sale, possess or transport for the purpose of sale, a live or dead animal or part of one.

Water Voles

The water vole *Arvicola amphibius* received limited legal protection up until April 1998 through its inclusion in Schedule 5 of the WCA 1981 (as amended) for some offences. This protection was extended on 6th April 2008, so the water vole is now fully protected under Section 9, which includes protection of their resting places.

Legal protection makes it an offence to:

- ▲ Intentionally kill, injure or take (capture) a water vole;
- ▲ Possess or control a live or dead water vole, or any part of a water vole;
- ▲ Intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection; or intentionally or recklessly disturb water voles while they are using such a place; and
- ▲ Sell, offer for sale or advertise for live or dead water voles.

Invasive Species

Invasive species are plant species which are prohibited from release into the wild. There is an extensive list (currently 42) which are set out in section 14(2) of the WCA 1981 (as amended) which states that '*if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.*'

The most widespread of these are Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* which are also covered by several pieces of legislation. The Environmental Protection Act 1990 (as amended) is a broad ranging piece of legislation that singles out Japanese knotweed and giant hogweed for special mention. The Act places a 'Duty of Care' on the producer and anyone they employ to dispose of soil or other material contaminated with Japanese knotweed or giant hogweed, such material becomes a controlled waste, which can only be taken to licensed landfill and must be dealt with in an appropriate way.

Appendix B – References

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Appendix C – Assessment of Structures, Trees and Habitats for Bats

Assessment of Structures, Trees and Habitats for Bats

Guidance on Assessing the Potential Suitability of Development Sites to Support Bats (adapted from Collins, J. (ed)).

Suitability	Description	
	Roosting	Commuting and Foraging
Negligible	An inspected structure or tree which is considered to have no features of importance for roosting bats. No further constraints apply to the method or timing of proposed works.	Negligible habitat features on-Site to support commuting or foraging bats.
Low	A structure with at least one or more features suitable to support opportunistic individual bats. However, inadequate space, shelter, protection and conditions, and the low suitability of surrounding habitats means that it is unlikely to be used as a maternity or hibernation roost site. A tree of adequate age and stature to support potential roosting features, however, either no features, or only features of limited potential recorded from the ground.	Habitat with potential to support low numbers of commuting bats due to its quality and connectivity. For example, a gappy hedgerow or unvegetated stream that is isolated from the surrounding landscape. Alternatively, suitable but isolated habitats suitable to support low numbers of foraging bats such as a lone tree or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that are of adequate size, shelter and protection, with suitable conditions and surrounding habitat to support a bat roost not of high conservation status (with respect to roost type not individual species conservation status).	Linear habitat continuity connecting to the wider landscape offering potential to support commuting bats, such as rows of trees and scrub or linked back gardens. Habitat such as trees, scrub, grassland or a waterbody with connectivity to the wider landscape offering foraging opportunities for bats.
High	A structure or tree with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis and for long periods of time due to their size, shelter, protection, conditions and the surrounding habitat.	Continuous high-quality habitat with strong connectivity to the wider landscape that is likely to be used by commuting bats on a regular basis, such as flowing waterbodies, hedgerows, rows of trees and woodland edges. High quality habitat with strong connectivity to the wider landscape that is likely to be regularly used by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to, and connected to, known roost sites.

Appendix D – Target Notes

Target Notes

Target Note 1 – Recently cleared scrub vegetation on drain

Target Note 2 – Pair of skylarks within field

Target Note 3 – Rubble, spoil, and brash piles

Target Note 4 – Possible sett entrance, partially submerged.

Target Note 5 – Badger latrine outside of Site boundary

Target Note 6 – Possible badger sett entrance

Target Note 7 – Areas of ephemeral pooled water associated with drains

Appendix E – Site Photographs

Site Photographs



Photograph 1 – Scattered trees along ditches



Photograph 2 – Scattered scrub



Photograph 3a – Poor semi-improved grassland



Photograph 3b – Southern grassland



Photograph 4 – Ephemeral vegetation



Photograph 5 – Bare ground, flooded



Photograph 6 – Pond 1



Photograph 7 – Brash piles



Photograph 8 – Tree 1



Photograph 9 – Tree 2



Photograph 10 – Tree 3



Photograph 11 – Tree 4



Photograph 12 – Tree 5



Photograph 13a – Badger latrine



Photograph 13b – Spoil with bramble scrub and possible sett entrance



Photograph 13c – Possible sett entrance



Photograph 14 – Ditch 1



Photograph 15 – Ditch 2



Photograph 16 – Ditch 3



Photograph 17 – Ditch 4



Photograph 18 – Ditch 5



Photograph 19 – Ditch 6



Photograph 20 – Ditch 7



Photograph 21 – Ditch 8



Photograph 22 – Ditch 9