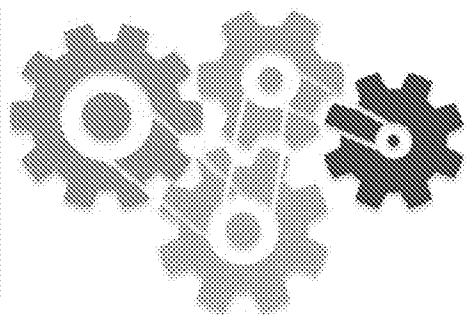


Ref: 17-3878

Land at Tars
Farm, Church
Lane,
Barnham,
West Sussex,
PO22 0DB

Preliminary Ecological Appraisal Report

February
2018



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Revision	-	B
Date	07/03/2018	22/02/2019
Prepared by	P. Holden (on behalf of Syntegra Consulting Ltd)	P. Holden (on behalf of Syntegra Consulting Ltd)
Checked by	S. Prior	
Authorised by	F. Bolton	P. Holden

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Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

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Executive Summary

Land at Tars Farm, Church Lane, Barnham, West Sussex, PO22 0DB, is being promoted for development by Mr Paul Voller. The proposed development is for four residential plots and associated drainage works. In order to accommodate the residential plots, the site will remove one derelict outbuilding, have selective vegetation clearance and the potential for ground levelling in select areas. With mitigation and precautionary measures in place, the scheme is entirely deliverable.

The proposed development site comprises of an agricultural field with a hard-standing car park. The site is mainly poor semi-improved grassland with areas of scattered scrub, hard standing, semi-mature and mature trees. To the north of the site is further residential land, to the east, Church Lane and further agricultural land, to the south is further residential land, and to the west is a stream, further agricultural land and railway.

The scrub, debris/rubble brush piles and grassland on site provide potential foraging, traversing and shelter for hedgehogs. The scrub, tall grassland, debris/rubble piles, and stream on site provide potential foraging, shelter and traversing grounds for reptiles. The hedgerow and trees provide potential nesting grounds for local birds. The hedgerow, stream, trees and scrub areas provide potential foraging and traversing grounds for local bats. The stream and bank habitats were considered to be suitable for use by water vole. The trees on site were subject to preliminary ground level tree roost inspections, the trees on site were considered to be of nil potential for roosting bats. The derelict buildings on site were considered to be of nil potential for roosting bats.

Habitats on the site are considered to be of some ecological value and the presence of protected species is probable. The stream, trees, hedgerows and scrub provide potential habitat and use by protected species such as bats, hedgehogs, water vole, reptiles and nesting birds. The trees on site were deemed as nil potential for roosting bats. The nature of the proposed development (i.e. selective vegetation clearance, removal of derelict buildings and potential levelling of the land to accommodate the proposed residential plot), and the size of the site are all factors which will combine to result in a minor negative impact upon surrounding habitats, protected species and wildlife in general which can be compensated with mitigation, precautionary measures and enhancement in place. With targeted recommendations to enhance biodiversity, the development of the site is likely to increase its ecological value and provide net gains to biodiversity in accordance with chapter 11 of the National Planning Policy Framework (NPPF) (DfCLG, 2012) and relevant wildlife legislation. The following further surveys and precautionary methods are recommended:

- Site clearance of boundary and on-site vegetation, to be undertaken outside the bird nesting season (March to the end of August) or immediately after an ecologist has confirmed the absence of active nests;
- Careful clearance of any rubble/debris piles, southern/western vegetation areas with the ecologist on site during the active reptile season (mid-March-mid October inclusive);

- Clearance of rubble/debris piles along with any vegetation done with care within the active periods for hedgehogs (March to October inclusive);
- Further water vole surveys will be required should works be proposed within 5 metres of the bank;
- 5 metre buffer zone with erosion guards in place along the western stream boundary, area to have EP1 grassland and sedge plugs planted within the bank to accommodate potential water vole;
- Lighting plan in place to ensure a dark corridor in place along the western and northern boundary of the site to ensure future traversing and foraging grounds;
- All trees that are scheduled for retention under the development proposals should be protected during construction following BS5387:12 (*Trees in relation to design, demolition and construction – Recommendations*).

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1. Introduction and Aims

1.1 Syntegra Group was commissioned by the applicant, Paul Voller, to undertake a Preliminary Ecological Appraisal (PEA) at Tars Farm, Church Lane, Barnham, West Sussex, PO22 0DB (Grid ref: SU 959 041). The proposed development is for four residential plots and associated drainage works. In order to accommodate the residential plots, the site will remove one derelict outbuilding, have selective vegetation clearance and the potential for ground levelling in select areas.

1.2 The objectives of this PEA and daytime bat survey were to:

- Map the main ecological features within the site and compile a plant species list for each habitat type;
- make an initial assessment of the presence or likely absence of species of conservation concern, and identify the presence or likely absence of bats and nesting birds;
- identify any legal and planning policy constraints relevant to nature conservation which may affect the development;
- determine any potential further ecological issue;
- determine the need for further surveys and mitigation;
- make recommendations for minimising impacts on biodiversity and providing net gains in biodiversity, where possible, in accordance with Chapter 11: *Conserving and Enhancing the Natural Environment*, of the National Planning Policy Framework (NPPF) (DfCLG,2012).

1.3 The site survey was undertaken by suitably qualified ecologist Patricia Holden MSc MCIEEM on the 23rd February 2018. The weather conditions were suitable with 60% overcast with a slight breeze. The timing of the survey was outside of the optimal surveying period, but still allows for the ecologist to make a robust assessment of the habitats present and their overall potential to support protected species.

1.4 The current use of the land is agricultural use with active grazing of the fields, and the grounds have signs of regular management.

2. Methodology

Preliminary Ecological Appraisal

2.1 The methods outlined in the CIEEM Guidance for Preliminary Ecological Appraisals (2017) were used for this survey. The field survey comprised of an extended Phase 1 survey (JNCC,

2010) of the proposed development site. This is a standard technique for obtaining baseline ecological information for areas of land, including proposed development sites.

- 2.2 Incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species, other species of conservation concern and any listed species of principal importance under the NERC Act (2006). When appraising the overall potential of protected species during the survey, the habitat(s) on site were assessed as present, high, moderate, low and negligible.
- 2.3 Invasive species listed under Schedule 9 of the Wildlife Countryside Act (1981 as amended) were searched for and recorded.
- 2.4 The survey was undertaken by Patricia Holden MSc MCIEEM, a full member of the Chartered Institute of Ecology and Ecology Management and follows the institutes Code of Professional conduct when undertaking ecological surveys (CIEEM 2016).

Desktop Study

- 2.5 Syntegra Consulting undertook a basic internet-based search of statutory designated sites within 2km of the site using the Natural England/DEFRA web-based MAGIC database (www.MAGIC.gov.uk) for MAGIC. The applicant has not agreed to commission a local biological records search, in line with CIEEM Guidelines, as such local sites and protected species records within 2km of the site are not reported in this report.
- 2.6 Ordnance survey maps and aerial images of the site were examined online using bing.com/maps and maps.google.co.uk.

Preliminary Ground Level Tree Roost Assessment

- 2.7 The surveys were carried out by Patricia Holden MCIEEM, an experienced ecologist who has undertaken numerous bat surveys and has undergone professional training in bat surveying techniques (Bat Licence # 2016-20365-CLS-CLS). The survey followed guidelines by the Bat Conservation Trust (2016) Bat Surveys Good Practice Guidelines 3rd edition.

3. Constraints

- 3.1 The surveys were undertaken outside the optimal period in the year for botanical surveys, although some short-lived annual species may not have been identified. It is considered that no rare or threatened plant species are present on the site and therefore the timing of the survey does not significantly impact upon the findings detailed in this report as the ecologist was able to classify and assess the value of the habitats on site. It is possible that certain flowering herbs and or ephemerals may have not been recorded during the winter survey and an extensive species list was not obtained but it is considered that the species characteristic

to the habitats on site were recorded. The survey provides a snapshot of the site and does not show seasonal differences.

- 3.2 The daytime bat inspection was undertaken during the inactive period by bats (BCT 2016). The ground level tree roost assessment, can identify features suitable for roosting bats but cannot inform whether bats are truly roosting within a surveyed tree.
- 3.3 The basic record search carried out only identifies national sites of statutory and non-statutory designation. For a more detailed search to inform county and or **local** designations, it is recommended that the client commissions a biological records data search. It is always advised that a record search is commissioned from a local biological records centre as this information is useful to inform the ecologist of any species that have been recorded within a 2km radius of the site and aid in informing precautionary and/or mitigation measures at the site.
- 3.4 *The client is responsible for reading and understanding the advice given in this report. The client must ensure that, where recommended, mitigation is followed through.*

4. **Results**

Extended Phase 1 Habitat Survey

- 4.1 The site is a rectangular shaped plot. The site is agricultural land with the fields used for pasture grazing. The site is typical of pasture land comprising of areas of poor semi-improved grassland, scattered scrub, hedgerows, semi-mature and mature trees and an area of hard standing. The northern boundary of the site has a driveway with areas of Improved grassland and mature trees bound by further residential land, the eastern boundary of the site is agricultural pasture fields bound by further residential land, to the south is agricultural fields with pockets of scattered scrub bound by further residential land, to the west is hard standing, a stream with scattered trees, scrub and further agricultural land. The wider landscape comprises of further residential land, agricultural fields, railway and minor roads.



Figure 1: Google Image of the Site

4.3 No ponds are located within a 500m radius of the site, and a small stream/watercourse is located directly west of the red line boundary.

4.4 There are five broad habitat types found within the site and on the site boundaries, these are:

- Hard standing
- Poor Semi-Improved Grassland
- Scrub
- Hedgerow/ Scattered Trees
- Stream

4.5 Each habitat type is described below:

Hard standing

4.6 Within the eastern section of the site is the start of the driveway that continues along the northern boundary to a car parking area located in the south-western section of the site. No emergent vegetation is within the hard-standing areas.

Poor Semi-Improved Grassland

4.7 Within the central area of the site and along the western boundary is an area of poor semi-improved grassland. The central grassland, is used for pasture grazing by livestock and shows signs of regular management. The sward at the time of the survey had ranges of heights less than 1cm. To the western section of the site is a strip of unmanaged grassland with average heights of 35cm. Species include: cock's foot *Dactylis glomerata*, creeping bent *Agrostis stolonifera*, rye grass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, with occasional buttercup *Ranunculus repens*, chickweed *Stellaria media*, white clover *Trifolium repens*, groundsel *Senecio vulgaris*, silverweed *Argentina anserina*, tormentil *Potentilla erecta*, common sedge *Carex sp*, meadow grass *Poa sp*, dock *Rumex crispus*, and ribwort *Plantago lanceolata*.

Scrub

4.8 Within the south-western corner of the site is a section of scrub, that ranges from scattered to dense. The scrub areas are adjacent to the derelict buildings and within the derelict outbuildings. Within this area were occasional rubble/debris piles. Species include: elder *Sambucus nigra*, bramble *Rubus fruticosus*, cleavers *Galium aparine*, dock *Rumex sp*, nettle *Urtica dioica*, cocks foot, ivy *Hedera helix*, and cow parsley *Anthriscus sylvestris*.

Scattered Trees/Hedgerow

4.9 Within the site boundaries are defunct hedgerows, scattered semi-mature and mature trees. Along the southern boundary is defunct leylandii hedgerow with a section of beech *Fagus sylvatica*, one semi-mature oak *Quercus robur* overhangs from the adjacent residential

boundary. Along the stream boundary (western) has elder, leylandii and hawthorn *Crataegus monogyna*. Within the offsite northern boundary is a defunct leylandii hedgerow, a mature beech, oak and chestnut tree *Castanea* sp. It should be noted that these trees are concentrated within the site boundaries.

Stream

- 4.10 Within the western boundary is a stream and bank. The bank areas appear unmanaged. Species within the bank and stream include: nettle, cock's foot, rye grass, sedges *Carex* sp, pendulous sedge *Carex pendula*, marsh marigold *Caltha palustris*, hemlock *Oenanthe* sp, lesser celandine *Ficaria verna*, ivy, dock, Phragmites, and flag iris *pseudacorus*.

Preliminary ground level tree roost assessment and building inspections

- 4.11 The trees on and adjacent to the site were inspected by the ecologist at ground level. The surveys identified features suitable for use or of potential use by roosting bats. Within the site boundaries were several semi-mature and mature trees including oaks, beech and horse chestnut.
- 4.12 In summary, the adjacent offsite southern oak tree had limited features suitable for use by roosting bats and was deemed as nil potential.
- 4.13 In summary, the western semi-mature bank trees had no features suitable for use by roosting bats and were deemed as nil potential.
- 4.14 In summary, the northern offsite oak, horse chestnut and beech had limited features suitable for use by roosting bats and were deemed as nil potential.
- 4.15 The derelict building is located in the SW boundary of the site had internal and external daytime bat inspections. The single building noted that both the roof spaces and wall spaces were caved. The building offered nil potential for use by roosting bats and was deemed negligible roosting potential.

5. Impact Assessment and Recommendations

Statutory Sites

- 5.1 The MAGIC search returned no statutory or non-statutory sites of nature conservation within 2km of the site.

Protected Habitats

- 5.2 The site does not have any listed Wessex priority habitats on site, nor does it have any qualify features to meet any of the listed priority habitats. The hedgerow boundary does not meet the criteria for a listed Wessex priority habitat. It is not considered that the boundary

hedgerow would be classified as 'important' under the Hedgerow Regulations (1997) due to the defunct structure and lack of species diversity displayed.

- 5.3 All trees and hedgerows on and adjacent to the site that are scheduled for retention under the development proposals should be protected during the demolition and construction phases of the development following BS5387:12 (Trees in relation to design, demolition and construction – Recommendations).

Protected Species

Plants

- 5.4 All plant species recorded on the site are common and widespread, and it is considered that no rare or threatened plant species are present on the site. It is likely that some short lived annual plant species, especially within the stream banks, were missed due to the timing of the survey. It is recommended that a buffer area of 5 metres is created within the western boundary, this area is to be prepared and then replanted with a mixture of sedge plugs and Emorsgate EP1, in place to create additional food sources for potential water voles, local invertebrates, bats and birds. The area once established will have an annual early autumn strimming, to a height of 35cm. There is scope to further enhance the site by incorporating wildlife planting within the plot, including native and wildlife friendly hedgerows, trees, shrubs, flowers and bulbs.

Bats

- 5.5 All bat species are legally protected under Section 9 of the Wildlife and Countryside Act (1981) (as amended) and Regulation 41 of The Conservation of Habitats and Species Regulations (2010) making bats a material consideration in the planning process. The MAGIC search for an EPSL within 2km returned two known applications, both were 1km north west of the site for the destruction of a common pipistrelle roost.
- 5.6 The proposals have no proposed tree removal, the boundary trees on site were fully inspected and noted to have limited to no potential crevice roosting features and are of nil potential for supporting a bat roost.
- 5.7 The site is classified as 'small' in size under The Bat Conservation Trust Guidelines and sections of the site are considered to contain 'medium to high' quality foraging habitat, as it largely comprises of grassland, scrub, stream, hedgerow and trees. The boundary trees provide good traversing habitats. It is thought the site has potential for use for foraging and traversing grounds for local bats.
- 5.8 The proposed works must maintain good traversing grounds for local bats to ensure no direct or indirect impacts by future lighting. The site will ensure that there is a conditioned lighting scheme in place that is motion triggered, low lux, and of low level and direct lighting with a

dark corridor in place for the northern and western boundaries in order to maintain good foraging and traversing grounds for local bats. The northern and western boundaries will maintain tree lines along with the western bank having wildflower/grasslands buffer zone to ensure good insect biomass. Future enhancements for bats, including priority species such as soprano pipistrelle bats, can be achieved by maintaining boundary vegetation and planting of native and wildlife friendly species within the residential plots that attract insects (jasmine, honeysuckle) to provide good foraging grounds for local bats. It is recommended that the trees on or directly offsite have Kent Bat Boxes or Vincent Pro Bat Boxes erected at heights of 3-5 metres.

Birds

- 5.9 The site is characterised by grassland, stream, hard standing, scrub, hedgerows and trees. The scrub areas with bramble, semi-mature and mature trees within the site boundaries noted particular features that provide potential nesting sites. The site also provides foraging grounds for local birds.
- 5.10 The versatility of most bird species means they can utilise almost any habitats encountered, the scrub, grassland and trees provide good foraging and nesting opportunities for many bird species and these are considered abundant within the surrounding landscape.
- 5.11 It is considered that an appropriately designed landscaping scheme could enhance the site for nesting and foraging birds and that the development will not significantly affect local bird populations as the majority of the trees on the site will be retained. Furthermore, the additional planting of native and wildlife friendly shrub and flower species and the installation of various bird boxes on site will provide nesting and foraging habitat for a variety of species post-development.
- 5.12 All breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended). Therefore, if any nesting bird habitat is to be lost or disturbed (i.e. scrub, trees) it should be cleared/felled outside of the nesting season, which is generally March to the end of August/mid-September, or immediately after an ecologist has confirmed active nests are not present.

Badgers

- 5.13 Badgers *Meles meles* are legally protected under The Protection of Badgers Act 1992 and as such, are of consideration when applying the principles of the NPPF (DfCLG, 2012). It is a criminal offence to:
 - Wilfully kill, injure, or take any badger;
 - Possess or cruelly ill-treat a badger;

- Possess any dead badger or part of one;
- Possess or control a living, healthy badger;
- Intentionally or recklessly damage, destroy or obstruct access to a sett, or disturb a badger whilst it is occupying a sett.

5.14 No evidence indicating that badgers have excavated setts on the site was found during the survey and no evidence of foraging or dispersal activity was found (e.g. snuffle holes, latrines, pathways, hair, feeding remains). No setts were seen in the adjacent habitats surrounding the site, however the record search indicates populations are within the area and it is considered likely that badgers are present in the immediate area and could be traversing through the site. Precautionary measures are recommended for the site works to ensure that no potential traversing badgers (and other small mammals) are harmed. All trenches, holes or earth work areas must be either filled in or an animal ladder provided overnight. Works on site are to occur during daylight hours only to avoid disturbing potential foraging nocturnal mammals.

Great Crested Newts

- 5.15 GCN are legally protected under section 9 of the Wildlife and Countryside Act (1981) (as amended) regulation 41 of The Conservation of Habitats and Species Regulations (2010) thus making GCN a material consideration of the planning process.
- 5.16 No ponds are located within 500 metres of the site. It is not considered that GCN will be impacted by the proposals and no further surveys are recommended.

Reptiles

- 5.17 The site's scrub, various rubble and debris piles, stream bank, and overgrown grassland within the south-western and western boundary of the site offer potential foraging and sheltering opportunities as well as traversing grounds for local reptiles.
- 5.18 It is considered that the boundary habitats on the site have some potential to provide habitat for reptilian species, most likely slow worms and grass snakes. Its likely that these species move along the stream bank and move on and off accessing for foraging and shelter. As the grassland areas have disturbance from horses, dogs and occasional management including mowing, it is not considered that the individuals are established within the area, rather use it on occasion.
- 5.19 A presence or likely absence reptile survey is not considered necessary as it is likely that only a small number of widespread reptiles are using the southern sections of the site and with precautionary measures in place the works will not injure or harm potential individuals.
- 5.20 It is not considered necessary to carry out a presence/absence survey as the individuals in and around the site are likely to move on and off site frequently given the historical regular

disturbance by the site owners. It is considered that with mitigation and precautionary measures in place, the works can proceed without causing harm or injury to potential individuals. The following measures will be implemented for the works:

- It is recommended that under the ecologist direction, the southern areas (scrub, grassland) on site are disturbed and then strimmed in strips, outside of hibernation season (mid-October to mid- March inclusive).
- The rubble and debris piles, will undergo soft demolition with the ecologist present.
- No piles of building materials will be stored directly adjacent to the vegetated boundaries on site or adjacent to the site and all materials are to be stored on top of pallets.
- Future enhancements include a western buffer area (5m) with grassland/wildflower species, log piles placed within the western boundary and a hibernaculum placed within an open and discrete area within the western boundary of the site, these will be designed and constructed with the ecologist on site.

5.21 Any individuals found, if any, will be moved by the ecologist to the adjacent stream bank habitat, this area is considered suitable as it has habitats similar to what is within the southern and western boundaries of the site. The western buffer area will be managed for reptilian species by an annual strim in the early autumn to heights of 35cm.

Hedgehogs

5.22 Hedgehog *Erinaceus europaeus* are protected under UK law, by the Wildlife and Countryside Act 1981 (as amended). The trees, hedgerow, debris/rubble piles, tall grassland and scrub on site provide potential habitat for hedgehogs. Precautionary measures are to be put in place with the careful clearing of any vegetation. These clearance activities will be carried outside of the hibernation season (late October to mid-March inclusive). Any trenches, holes and or ditches must be filled in or a mammal ladder provided. Any future fences on site will have hedgehog gravel boards in place to ensure connectivity across the landscape Any fences on site will have hedgehog gravel boards in place to ensure connectivity across the landscape.

Invertebrates

5.23 The site's habitats are likely to support a small amount of notable invertebrate species, such as butterflies, moths and beetles. It is likely that the habitats on the site also provide habitat for common and widespread species which may in turn act as a food source for birds and bats.

5.24 As the site will maintain vegetated boundaries along with any log piles, impacts upon notable invertebrate species or significant populations of widespread species from the proposed development will be reduced. The inclusion of nectar rich plants in any landscaping design, coupled with the installation of 'insect hotels/bug boxes' would provide

good invertebrate habitat on the site post-development. Any new log piles placed on or adjacent to the site would also be beneficial for a variety of beetle species.

Water Vole

- 5.25 The stream bank was subject to a water vole survey, it should be noted that the optimal timing for a survey is during the breeding season as field signs are more prevalent due to marking by individuals. As the survey was outside of this optimal survey timing, the surveyor could only look for potential signs along with grading the bank of its potential to support water vole. *It should be noted that a single visit is not considered sufficient to determine likely absence or confirmed presence.*
- 5.26 The stream bank substrate was considered suitable for use by burrowing water vole. The bank vegetation was also considered suitable for use by foraging water vole given the presence of favoured species within their diet. The banks did note holes with entrances having trimmed/short grasses, a sign of water vole burrow entrances.
- 5.27 Should the proposals include works to the banks or within 5 metres, then further water vole surveys must be carried out (April – October inclusive). Should a buffer of 5 metres remain in place from the edge of the bank, then it is considered that works can proceed with precautionary measures in place. The buffer area will be prepared with the ecologist on site and then planted with sedge plugs and EP1 seed mixture.

6. Conclusions

- 6.1 Habitats on the site are considered to be of some ecological value and the presence of protected species is probable. It is considered with further surveys to inform the mitigation and precautionary measures the works can proceed. Precautionary measures and mitigation measures must be in place to ensure no harm comes to potential protected species on and adjacent to the site. There are no proposals for tree removal on site and the boundary trees were deemed as nil potential. The scrub, hedgerows, trees, tall grassland, rubble/debris piles on site have potential for use by hedgehogs. The taller grassland, stream bank, scrub, trees and debris/rubble piles, have some potential for use by reptiles. The scrub, hedgerows and trees provide potential nesting grounds for local birds. The grassland, stream, hedgerows, trees and scrub areas provide potential foraging and traversing grounds for local bats. The stream bank has the potential to support water vole. The nature of the proposed development, with additional mitigation measures in place will ensure that the proposals will have no adverse impacts upon surrounding habitats, protected species and wildlife in general. The following further surveys, mitigation and precautionary methods are recommended:

- Site clearance of boundary and on-site vegetation, to be undertaken outside the bird nesting season (March to the end of August) or immediately after an ecologist has confirmed the absence of active nests;
- Careful clearance of any rubble/debris piles, southern/western vegetation areas with the ecologist on site during the active reptile season (mid-March-mid October inclusive);
- Clearance of rubble/debris piles along with any vegetation done with care within the active periods for hedgehogs (March to October inclusive);
- Further water vole surveys will be required should works occur within 5 metres of the bank;
- 5 metre buffer zone with erosion guards in place along the western stream boundary, area to have sedge plugs planted within the bank to accommodate potential water vole;
- Lighting plan in place to ensure a dark corridor in place along the western and northern boundary of the site to ensure future traversing and foraging grounds;
- All trees that are scheduled for retention under the development proposals should be protected during construction following BS5387:12 (*Trees in relation to design, demolition and construction – Recommendations*).

6.2 The table below summarises the potential protected species on site, proposed mitigation and prescribed enhancements for the site.

Table 3: Potential Protected Species on Site and Proposed Mitigation and Enhancement

<u>Species/Habitat</u>	<u>Impact</u>	<u>Mitigation</u>	<u>Compensation</u>
Nesting Birds	Potential loss of foraging, shelter and nesting sites	works on or adjacent to suitable vegetation outside nesting bird season (March to August inclusive), unless first checked by SQE	Three nesting boxes placed within offsite boundary trees (Schwegler 1B 26mm and 32mm)
Hedgehogs	Potential loss of foraging, traversing and shelter sites	Careful strimming of on-site boundary vegetation, soft demolition of any log/brush/debris piles and any notable features outside of hibernation season	hedgehog gravel boards used on site to ensure future connectivity across landscape

Reptiles	Potential loss of foraging, traversing and shelter sites	Works to potential features and vegetation carried out with the ecologist on site during the active reptile season	Log piles, hibernacula and 5 metre wildflower/grassland in western boundary
Bats	Potential loss of foraging and traversing grounds	lighting scheme in place	planting of wildlife friendly species within the site to encourage insect biomass, 2 KENT or Vincent Pro bat boxes hung on suitable trees to provide future crevice roosting areas
Water Vole	Potential loss of foraging, shelter and traversing grounds	Review of proposals to determine if further surveys are required to inform mitigation	Erosion guards in place on western boundary, 5 metre buffer in place along western boundary, EP1 seed mixture and sedge plugs in place along the western boundary

6.3 It is considered that any potential adverse impacts from the proposed development upon specific protected species will be able to be wholly mitigated for through and ecologically lead design process. In addition, a sensitive landscape design could provide enhancements to the habitats on and adjacent to the site which in turn will benefit multiple species and biodiversity in general, in accordance with chapter 11 of the NPPF (DfCLG, 2012). Proposed enhancements include:

- Log piles within the western boundary the site;
- Buffers/Corridors in place along western boundaries;
- Nesting and Bat Boxes placed on suitable trees on site;
- Hedgehog gravel boards used within any proposed fences on site;
- Wildlife friendly planting scheme

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T: 0118 452 8520



Appendix II: Photos of the Site



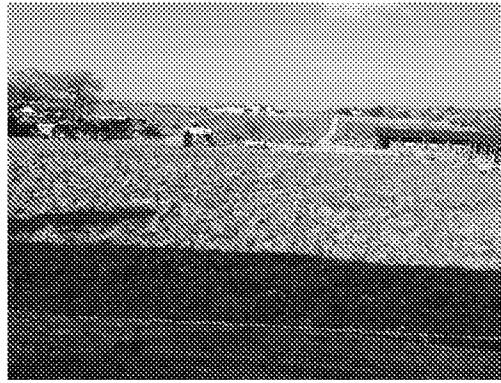
Southern and western section of site – taller grassland, scrub and hard standing



Poor Semi-Improved Grassland (Pasture land)



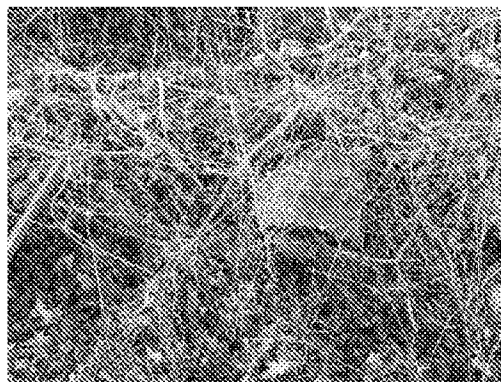
Hedgerow – southern boundary



Looking across the site from the offsite eastern boundary



Derelict buildings within southern section of site



Rubble piles within scrub areas in southern end



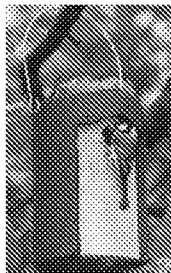
Noted potential burrows in bank



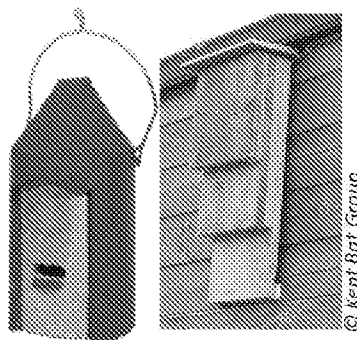
Stream looking from offsite boundary

Appendix III: Recommended Bird and Bat Boxes

Boxes available at nhbs.com



The 1B Schwegler Nest boxes are an example of a nest box that would provide nesting sites for several local bird species. These are to be placed within trees, hedgerows or other suitable features for nesting birds on the site.



Bat boxes such as the one shown (2F Schwegler Bat Boxes and Kent) are to be placed within retained trees, hedgerows or other suitable features that follow the product guidelines for example being located approximately 3-6m from ground level and in positions that receive sunlight.

Appendix IV: Legislation

This section details the legislation relevant to the protection of species and habitats. It also details the relevant policies within national, regional, and local planning policy.

NPPF

The National Planning Policy Framework in summary requires that the planning system should aim to contribute and enhance the natural and local environment. The aims are to: protect and enhance valued landscapes as well as geological conservation interests and soils; recognising the wider benefits of ecosystem services; and minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Biodiversity Laws

Statutory protection is afforded to certain wild habitats and species through European Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (the 'Habitats Directive'). This has been adopted into UK legislation through the provisions of the Conservation of Habitats and Species Regulations, 2010. At the national level protection is found in Wildlife and Countryside Act (WCA 1981; as amended) and it is designed to protect species and habitats considered to be of principal importance to safeguard for the purpose of conserving biodiversity.

Under Regulation 41 it is an offence to deliberately capture or kill a wild animal of a European protected species, deliberately disturb any such animal and to damage or destroy a breeding site or resting site. Since August 2007 amendments to the Conservation (Natural Habitats) Regulations 1994 have changed the term 'deliberately disturb' such that it is an offence if the species are disturbed in such a way that it is likely to significantly affect the colonies ability to survive, breed or rear their young; or affect the local distribution or abundance of that species.

The WCA 1981 as amended is the principle mechanism for the statutory protection of wild flora and fauna in the United Kingdom. Reptiles, including slow worms and grass snakes, are protected under part of Schedule 9(1) of the Wildlife & Countryside Act 1981 (as amended) against intentional killing and injuring. Nesting birds are protected under the WCA 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs.

All species of bats are strictly protected through UK and European regulations. Bats have been placed on protected lists due to the overall steady decline of species over the last century. They are protected under the Wildlife and Countryside Act 1981 (as amended), under which bats are protected from intentional or reckless disturbance. Additional protection for all bat species is provided under Schedule 2 of The Conservation of Habitats and Species Regulations 2010. Licences are needed if the disturbance is a significant effect on the bat colony and would otherwise be an offence. Licences are granted after strict following of Section 44 under the Habitat Regulations, following the submission of a licence application to Natural England. Licences permit the work that is otherwise considered to be an offence under the legislation.

Badgers are protected under Badger Protection Act 1992 and under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); badgers are classified as a species of conservation concern under the UK Biodiversity Action Plan and listed under Appendix III of the Bern Convention.

In and England and Wales, water vole are listed on Schedule 5 of the WCA 1981, receiving full protection since 2008. The WCA 1981 together with amending legislation, list the following offences:

- Intentionally killing, taking or injuring a water vole (Section 9(1));
- Possessing or controlling any live or dead water vole, or any part or derivative (Section 9(2));
- Intentionally or recklessly damaging or destroying a water vole's place of shelter or protection (Section 9(4)(a));
- Intentionally or recklessly disturbing a water vole whilst it is occupying a structure or place which it uses for shelter or protection (Section 9(4)(b));
- Intentionally or recklessly obstructing access to a water vole's place of shelter or protection (Section 9(4)(c));
- Selling, offering for sale, or possessing or transporting for the purposes of sale, any live or dead water vole, or any part or derivative, or advertising any of these for buying or selling (Section 9(5)).

Appendix V: Phase 1 Map

