PRELIMINARY ECOLOGICAL APPRAISAL

FOR

THE WEALD, LAUGHTON

Date of report	18th July 2022
Date of survey	17th May 2022
Author	Emma Waller, Constance Tragett
Reviewer	Alexander Watkinson
Client name	Jarvis Land Ltd.
Corylus reference	22051

CORYLUS ECOLOGY

Unit A3 Speldhurst Business Park, Langton Road, Speldhurst, Tunbridge Wells, Kent. TN3 0NR
Telephone: 01892 861868 E-mail: info@corylus-ecology.co.uk

Director: H G Wrigley (née Lucking) BSc. MIEEM, CIEEM

Corylus Ecology Ltd Registered in England No 5005553
Registered Office: Henwood House, Henwood, Ashford Kent TN24 8DH
VAT Reg No. 862 2486 14

SUMMARY

- A PEA has been undertaken of an area of land west of Church Lane in Laughton, East Sussex. The Site is dominated by tussocky grassland, with hedgerows along the northern, eastern and southern boundaries. The proposals include the redevelopment of the Site into residential dwellings, however at this stage no detailed proposal plans have been provided.

- There are records of great crested newt within a 250m radius of the Site. Six ponds are situated within a 250m radius, the nearest of which some 53m west of the Site. Habitat Suitability Index assessments have been recommended for all six ponds (P1 – P6) within a 250m radius. If ponds are considered suitable to support great crested newts further presence / likely absence surveys will be required.

- The Site contains suitable reptile habitat in the form of tussocky grassland and hedgerow understorey. Survey to determine the presence or likely absence of reptiles have been recommended.

- The hedgerows contain suitable foraging and commuting habitat for dormice. However, it is understood that these habitat will not be directly impacted by the proposals, therefore no further surveys for the species are required. If the design of the scheme changes and sections of hedgerow need to be removed, further surveys may be required.

- No further surveys for bats or badgers are required. Recommendations have been made to protect breeding birds and badgers and hedgehogs that may be using the Site for foraging during the works.

- Recommendations for enhancing the Site for biodiversity in accordance with NPPF have also been provided. These include generous native planting and the installation of bird boxes, hedgehog house and maintaining connectivity for hedgehog.

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1.0 INTRODUCTION

1.1 Corylus Ecology was requested to undertake a Preliminary Ecological Appraisal (PEA) of an area of land approximately 200m south of the village Laughton, East Sussex, hereinafter referred to as 'the Site'. The Site measures approximately 0.5ha, hereinafter referred to as 'the Site'. The OS grid reference of the Site is TQ 50192 12925.

1.2 The Site is dominated by grassland, with hedgerows bordering the north, east and southern boundaries. Church Lane runs along the east of the Site and a post and wire fence along the western boundary separating the Site from another field. The surrounding landscape is dominated by fields and farmland, with residential dwellings immediately to the south and north.

1.3 The proposals are to redevelop the Site into residential dwellings, however at this stage detailed proposal plans have not been provided.

1.4 The Preliminary Ecological Appraisal provides information relating to the habitats within the Site and identifies potential for and, if apparent, evidence of use by protected species. In addition, it provides recommendations for further surveys if required.

1.5 The objectives of the surveys were to:

- Classify and map the habitats within the Site according to those within the Phase 1 manual;
- Determine the potential for protected species to occur within the Site; and
- Suggest further surveys or mitigation measures where necessary.

2.0 METHODOLOGY

2.1 Desk Study

2.1.1 As part of a preliminary desk study, records of designated sites, priority habitats and granted European Protected Species Mitigation (EPSM) Licences within 3km of the Site were sought from the Natural England interactive mapping service 'Multi-Agency Geographic Information for the Countryside' (MAGIC) (Natural England, 2016).

2.2 Phase 1 Habitat Survey

2.2.1 The Site was subject to a Phase 1 Habitat Survey on 17th May 2022. The habitats present on the Site were mapped in accordance with the '*Handbook for Phase 1 Habitat Survey*' (JNCC, 2003). Habitat areas and features of topographical and/or ecological interest were described in the form of target notes. These were later used to create botanical species lists by target note area and also to create a colour coded Phase 1 Habitat map. All nomenclature follows Stace (2019). Non-native or invasive species were also identified and mapped where appropriate.

Survey Constraints

2.2.2 The PEA survey also includes the mapping of invasive botanical species listed under Schedule 9 of the Wildlife and Countryside Act 1981, as well as those classed as rare or declining. However, some botanical species are seasonally constrained and therefore may not be visible on a single survey visit. The survey was undertaken in May, when many plants are visible or flowering.

2.3 Protected Species Assessment

2.3.1 The Phase 1 survey included an assessment of the potential for the Site to support protected species. This type of survey aims to assess the potential for protected species to occur due to the habitats present but it does not include any specific survey methods designed to demonstrate whether the Site is in fact used by such species. The exception is badgers *Meles meles* as field signs associated with this species can be searched for, including latrines, holes, pushes, paths and hairs.

2.3.2 As part of the protected species assessment, a ground level investigation of all suitable trees was carried out to identify bat potential. Bats may use any crack or hole (such as woodpecker holes), splits or flaking bark and ivy (JNCC, 2004). Bats will also use different roosts at different times of the year, therefore it can be difficult to confirm bat roosts in trees. Field signs include dark streaking and droppings under access points. However, even where bats are known to occur, such signs are not always evident. Trees were also noted if they supported ivy *Hedera helix*. Ivy can do one of two things; very old, dense ivy can provide cavities for bats between the thick interwoven stems and the tree trunk or it can conceal features in the tree itself.

2.3.3 In addition, the on-site habitats were assessed for their suitability to support foraging and commuting bats. Trees and habitats were placed into one of four categories as described below (Collins, 2016):

Table 1: Bat building, tree and habitat assessment criteria

Negligible	Habitat, building or tree with negligible features likely to be used by roosting, foraging or commuting bats.
Low	A building or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space for shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.
Moderate	A building or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but which are unlikely to support a roost with high conservation status. Continuous habitat connected to the wider landscape that could be used by bats for commuting and foraging, such as lines of trees and scrub or linked back gardens.
High	A building or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis, and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats, such as river valleys, hedgerows, lines of trees and woodland edge.

3.0 RESULTS

3.1 Site Description

3.1.1 The Site is located some 3.4km south-west of East Hoathly and some 200m south of the village Laughton. The Site is bordered by residential house to the north and south, with a field adjacent to the western boundary and Church road adjacent to the east. The wider landscape is dominated by fields and farmland, with hedgerows, treelines and fragments of woodlands.

3.2 Desk Study

Statutory Designated Areas

3.2.1 There is one Site of Special Scientific Interest (SSSI) within a 3km radius of the Site; Park Corner Heath SSSI. Reasons for its designation include its outstanding assemblage of moths and a varied butterfly fauna including several nationally scarce species. A small section of the Site falls into the SSSI Impact Risk Zone (IRZ) for Park Corner Heath SSSI.

Priority Habitats

3.2.2 Under Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006, the Secretary of State was obliged to publish a Priority Habitats Inventory which is a list of habitats and species of principal importance for the conservation of biodiversity in England. Of these Priority Habitats, six were present within 3km of the Site. These are described below.

Table 2 - Priority habitats within 3km of the Site

Priority Habitats	Coverage within 3km of Site	Distance & Position of closest area
Deciduous Woodland	Small parcels of woodland scattered throughout 0.5ha (closest area)	313m east
Traditional Orchards	One area ca.0.4ha	2.2km west
Lowland Dry Acid Grassland	One area ca.1.3ha	2km north-east
Good quality semi-improved grassland (Non Priority)	33.2ha (total area in 3km) 0.5ha (closest area)	730m north
Coastal and Floodplain Grazing Marsh	19.1ha (total area in 3km) 5.7ha (closest area)	2.4km south-west

Ancient Woodland

3.2.3 There is relatively sparse coverage of ancient woodland within 3km of the Site with the largest areas being of ancient replanted woodland. The nearest woodland fragment of ancient and semi-natural woodland lies at Coopers Farm Shaw, which is located 312m to the east and covers an area of 0.5ha. There is a large expanse of ancient replanted woodland at Vert Wood which is located 1.3km to the north-east and covers an area of 127ha.

EPS Licences

3.2.4 One European Protected Species Mitigation (EPSM) licence has been granted within 3km of the Site and is some 2.4km north-west of the Site. The licence (2018-34803-EPS-MIT) was granted for the destruction of a resting place for common pipistrelle *Pipistrellus pipistrellus* and brown long-eared *Plecotus auritus* and was active between May 2018 and May 2019. No other EPSM licences have been granted for protected species within 3km of the Site.

Great Crested Newt Class Survey Licence Returns

3.2.5 There is one great crested newt *Triturus cristatus* (GCN) class survey licence return within a 3km radius of the Site. This licence return is from 2016 and recorded the presence of GCN within a pond (grid reference TQ502131) approximately 140m north of the Site. There are also six GCN pond survey records within a 3km radius of the Site, all of which recorded the presence of GCN, however these are outside of a 500m radius of the Site, with the nearest some 1.2km south-west.

3.3 Phase 1 Habitat Survey

3.3.1 The habitats present on Site are shown within Figure 1, with further detail provided by way of specific target notes: these are denoted by the letters 'TN'. Photographs of selected target notes are provided in Figure 2.

Species-rich, Semi-improved Grassland

3.3.2 The Site is dominated by tussocky grassland (TN1), which at the time of the survey was approximately 0.5cm in height and is connected to an adjacent field to the west. There is abundant creeping buttercup *Ranunculus repens* and frequent red clover *Trifolium pratense.* Also present are cock's foot *Dactylis glomerata,* cat's tail *Phleum pratense,* Yorkshire fog *Holcus lanatus,* meadow foxtail *Alopecurus pratensis*, rough meadow grass *Poa trivialis,* common bent *Agrostis capillaris*, lesser stitchwort *Stellaria graminea,* white clover *Trifolium repens,* spear thistle *Cirsium vulgare*, lesser birds-foot-trefoil *Lotus corniculatus*, ox-eye daisy *Leucanthemum vulgare*, broad-leaved plantain *Plantago major*, dandelion *Taraxacum sp* agg., herb Robert *Geranium robertianum*, goosefoot *Chenopodium* sp., common nettle *Urtica dioica*, cleavers

Galium aparine, meadow buttercup *Ranunculus acris*, white campion *Silene latifolia*, creeping cinquefoil *Potentilla reptans*, common mouse-ear *Cerastium fontanum*, ground elder *Aegopodium podagraria*, bush vetch *Vicia sepium*, common vetch *Vicia sativa*, yarrow *Achillea millefolium*, cow parsley *Anthriscus sylvestris*, hedge bedstraw *Galium mollugo*, knapweed *Centaurea* sp., meadow vetchling *Lathyrus pratensis*, daffodil *Narcissus* sp., common sorrel *Rumex acetosa*, salad burnet *Sanguisorba minor*, germander speedwell *Veronica chamaedrys* and small willowherb *Epilobium minutum*.

Hedgerows

3.3.3 Hedgerows form the curtilage of the Site on three borders: north, east and south. The eastern hedge (H1) stands approximately 2.5m wide and 1.7m high. This hedge is comprised of hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, bramble *Rubus fruticosus*, rose *Rosa canina*, field maple *Acer campestre*, pedunculate oak *Quercus robur*, elder *Sambuca nigra*, goat's willow *Salix caprea,* variegated box *Buxus supervirens* var. and spindle *Euonymus europaeus.* The understory comprises species similar to TN1, such as Yorkshire fog, cock's-foot, meadow foxtail, cow parsley, yarrow, common bent and lesser bird-foots-trefoil, with the addition of hairy brome *Bromus ramosus*, ribwort plantain *Plantago lanceolate* and hedge garlic *Alliaria petiolata*.

3.3.4 The southern hedgerow (H2) stands approximately 2m tall. This hedge is comprised of hawthorn, beech *Fagus sylvatica*, hornbeam *Carpinus Betulus*, holly *Ilex aquifolium*, field maple, perfoliate honeysuckle *Lonicera caprifolium*, sycamore *Acer pseudoplatanus*, privet *Ligustrum* sp., two semi mature silver birch trees *Betula pendula*, ivy *Hedera* sp., elder, willow, mature oak, fly honeysuckle *Lonicera xylosteum*, cotoneaster *Cotoneaster* sp., yew *Taxus baccata*, black briony *Dioscorea communis* and spindle. The understory is comprised of similar species as under H1 with cleavers, rough meadow grass, Timothy *Phleum pratense* and bugle *Ajuga reptans*.

3.3.5 The northern hedgerow (H3) stands at 1.8m high and is comprised of bramble, goat's willow, ornamental shrubs, cotoneaster, ash *Fraxinus excelsior*, privet, Japanese rose *Rosa rugosa*, hawthorn, blackthorn, spindle, wayfaring tree *Viburnum lantana*. The following plants form the understory: bugle, common nettle, rosebay willowherb *Chamerion angustifolium*, tufted hair grass *Deschampsia cespitosa* and cut-leaved-cranesbill *Geranium dissectum*.

Tall ruderal

3.3.6 Within the north-western corner of the Site is an area of tall ruderal (TN5) with mature crack willow *Salix fragilis*. The tall ruderal understorey of the crack willow includes; common nettle, creeping thistle *Cirsium arvense*, Yorkshire fog, cock's-foot, meadow buttercup, cleavers, Timothy, oak sapling, goat willow, bramble, creeping cinquefoil, cut-leaved-cranesbill and meadow foxtail.

Miscellaneous - Structures

3.3.7 The western boundary (TN2) of the Site is a bare barbed wire fence.

3.4 Protected Species Assessment

Bat Tree Assessment

3.4.1 There are mature and semi-mature trees along the southern and northern boundaries, however these trees all appeared to be in healthy condition, with no obvious features for day roosting bats.

Bat Habitat Assessment

3.4.2 Regarding the quality of habitat for commuting and foraging bats, the southern boundary provides connectivity to the wider landscape and to a small block of woodland some 46m west of the Site. The northern and eastern hedgerows also provide suitable linear features for commuting bats, however these boundaries are adjacent to either a residential dwelling or Church Lane. At the time of the survey the grassland was long (ca. 0.5m) and tussocky which is considered suitable habitat for foraging bats. The Site is connected to farmland and fields via hedgerows and treelines, however the Site is not directly connected to any larger areas of woodland. Overall, due to the relatively small size of the Site and lack of connectivity to optimal habitat such as large areas of woodland, the Site is likely to be used by low numbers of commuting and foraging bats and therefore has been assessed as having 'Low' suitability under the Bat Conservation Trust guidelines (Collins, 2016).

Amphibians

3.4.3 There are no onsite waterbodies, however there are six ponds within a 250m radius of the Site, with an additional 14 ponds within a 500m radius (see table 3 and Figure 3 for locations, distances from the Site and intervening terrestrial habitat of ponds within a 250m radius).

Table 3 - Summary of Ponds within 250m Radius of the Site

Pond	Distance & Direction	Intervening Terrestrial Habitat
P1	53m, W	No intervening habitat, P1 is on edge of adjacent field to the west
P2	71m, E	Church Lane, grassland and ditch
P3	141m, NE	Church Lane, managed grassland and field
P4	193m, N	Church Lane, managed grassland and field
P5	241m, NE	Lewes Road (B2124), Church Lane, managed grassland and field
P6	235m, SE	Church Lane, paddocks and fields

3.4.4 The nearest pond is some 53m west of the Site (P1), with no intervening terrestrial habitat. The habitat between the Site and P1 comprises of tussocky grassland. Pond P3, which is some 141m north-east of the Site, is the nearest pond to the GCN Class Survey Licence Return record, which recorded GCN in 2016.

Reptiles

3.4.5 The tall tussocky grassland provides suitable habitat for sheltering, foraging and commuting reptiles such as slow worm *Anguis fragilis,* common lizard *Zootoca vivipara* and grass snake *Natrix helvetica*. The understorey of the hedgerows are also suitable for reptiles, and may provide connective corridors through the landscape.

Dormice

3.4.6 The Site's hedgerows contain suitable food sources for foraging dormice and provide suitable habitat for commuting and nesting. The hedgerows also provide connectivity to the surrounding landscape.

Badger and Hedgehog

3.4.7 No evidence of badger, such as latrines, hair or holes were noted during the survey. The Site however provides suitable commuting and foraging habitat for the species. The hedgerows are also suitable for resting and commuting hedgehog, with the grassland providing suitable foraging habitat.

Breeding Birds

3.4.8 The trees and hedgerows provide good quality habitat for breeding birds. Bird species noted during the survey include robin *Erithacus rubecula*, tree sparrow *Passer montanus*, starling *Sturnus vulgaris,* jackdaw *Corvus monedula*, song thrush *Turdus philomelos*, great tit *Parus major* and raven *Corvus corax*.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 Overview and Desk Study

4.1.1 A PEA has been undertaken of an area of land west of Church Lane in Laughton, East Sussex in May 2022. The proposals are for the redevelopment of the Site into residential houses, however at this stage there are no detailed plans of the proposals.

4.1.2 The Site falls within the SSSI IRZ Park Corner Heath SSSI. However, consultation is only required with Natural England if there is any discharge of water or liquid waste of more than 20m^3 / day to ground or surface water.

4.2 Phase 1 Habitat Survey

4.2.1 A Phase 1 Habitat Survey has been undertaken and no rare or nationally scarce botanical species or habitats were identified within the Site. However, this is based on a single site visit undertaken in May.

Invasive Species

4.2.2 The species Japanese rose was noted along the northern hedgerow. This plant is included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This means it is an offence to plant or cause this species to grow in the wild. This hedgerow is a shared boundary with a residential dwelling, so likely the plant is growing within the associated gardens. The plant should be removed from the Site's side of the hedgerow and any waste containing the plant material will need to be removed to a licensed landfill as controlled waste.

4.2.3 Following the removal of the species, it is recommend that control measures to prevent the spread of Japanese rose are adopted. Advice should be sought from specialist contractors.

4.3 Protected Species Assessment

Bat Habitat Assessment

4.3.1 The Site provides 'Low; quality bat foraging and commuting habitat due to the size of the Site and lack of connectivity to larger areas of optimal habitat. The Site is likely to be used by a small number of foraging and commuting bats. Recommendations for any new planting to be native and species-rich have been provided under the National Planning Policy Framework (NPPF) in section 4.4 of this report and this will increase the suitability of the Site for foraging bats. Due to the size of the Site, no dedicated bat activity surveys are required. Guidance on artificial lighting is provided in Appendix 4 to minimise the impacts of the proposals on the local bat population.

Amphibians

4.3.2 The nearest pond is 53m west of the Site (P1), within the boundary of the field adjacent to the Site. There are no terrestrial intervening barriers between the Site and the pond, with habitat comprising tussocky grassland. GCN are also known to be within the surrounding area, with a GCN Class Licence return some 141m north of the Site, thought to be in reference to pond P3. GCN have seen a rapid decline in the last century and the species is fully protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitat and Species Regulations 2017. The protection afforded to GCN is such that the animals, their eggs and their habitats they use for rest or shelter are protected, including both aquatic and terrestrial habitats, and consideration must be given to the potential of death or injury to individual animals.

4.3.3 If GCN are present within P1, there is potential for GCN to use the habitats within the Site and therefore a risk of encountering the species during the construction phase and causing injury or killing of individual newts. GCN breed in ponds during March to June and use terrestrial habitats for the remainder of the year. GCN are surveyed at a landscape level because they form a series of subpopulations, or metapopulations, across suitable ponds and habitats (English Nature, 2001). This strategy enables populations to survive by shifting locations when conditions become unfavourable, such as when a breeding pond dries out. The majority of GCN will move into terrestrial habitat within 250m of the breeding pond, although some individuals move up to 500m or more; distances moved are dependent on the quality of the habitat in the area (Oldham *et al*. 2000).

4.3.4 An additional five ponds are within a 250m radius of the Site, all of which are on the opposite side of Church Lane. Church Lane is a country lane and acts as a minor barrier to amphibian movement, however GCN may still cross over the road between ponds. Due to the distance, connective habitat and that GCN are known to be within a 250m radius of the Site, ponds P1 – P6 should be assessed for their suitability to support GCN using the HSI assessment. If these ponds are found to be suitable to support GCN, presence / likely absence survey may be required. If GCN are recorded in any of the offsite ponds within a 250m radius of the Site, in particular P1, an EPSM licence from Natural England may be required.

Reptiles

4.3.5 The tussocky grassland and understorey of the hedgerows support suitable habitat for reptiles. All British reptiles are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Therefore, presence / likely absence surveys for reptiles are recommended to identify whether reptiles are using the Site and if so, species and population size. If reptiles are using the Site, the results will help inform a reptile mitigation strategy.

Dormice

4.3.6 The Site supports suitable habitat for dormice in the form of hedgerows, which provide suitable food sources and nesting opportunities for the species. The hedgerows are connected to suitable dormouse habitat within the immediate surrounding landscape, however there is a lack of connectivity to areas of deciduous and ancient woodland which is optimum dormouse habitat. It is understood that no suitable dormouse habitat will be directly impacted by the proposals and there are no EPSM records of dormice within a 3km radius of the Site. Therefore, no further surveys for the species are required, however if the design of the development changes and hedgerows are to be removed, further surveys may be required.

Badger and Hedgehog

4.3.7 No signs of badger were recorded during the survey and no further surveys are required. The Site however is suitable for foraging and commuting badgers. The Site is also suitable for hedgehog. It is therefore recommended that any trenches made during the works are either covered at night, or if left open during the construction works, should have planks of wood placed in them to provide exit ramps for any animals which might fall into them. Trenches should be checked for animals each morning and before they are infilled.

4.3.8 The hedgerows and overgrown ornamental planting is suitable for sheltering hedgehogs, with the grassland providing suitable habitat for foraging and commuting. Hedgehog are protected from harm under Schedule 6 of the Wildlife and Countryside Act 1981 and are a Priority Species under the Natural Environment and Rural Communities (NERC) Act 2006. Recommendations for hedgehog have been provided under the National Planning Policy Framework (NPPF) in section 4.4 of this report.

Breeding Birds

4.3.9 All wild birds, including eggs and chicks, are protected against injury or killing and their nests are protected against damage or destruction when in use under the Wildlife and Countryside Act (1981). Habitat suitable for nesting birds was identified in the trees and hedges across the Site. If any of the hedgerows or trees are to be removed, this should be undertaken outside the core bird breeding season, limiting this work to the period 1st September to 1st March. If this does not coincide with planned schedules, the vegetation should be inspected by a suitably experienced ecologist before removal; if any active nests are found, works will have to cease until the eggs have hatched and the chicks have fledged.

4.4 Recommendations with regard to NPPF

4.4.1 The National Planning Policy Framework (July 2021) sets out planning policies on the protection of biodiversity and geological conservation through the planning system. Section 15 of the National Planning

Policy Framework (NPPF) states that planning policies and decisions should contribute to and enhance the natural and local environment by:

- safeguarding local wildlife-rich habitats and wider ecological networks including designated sites, wildlife corridors and stepping stones and areas identified by national and local partnership for enhancement;
- promoting the conservation, restoration and enhancement of priority habitats and ecological networks;
- promoting the protection and recovery of protected species; and
- identifying and pursuing opportunities for measurable net gains for biodiversity.

4.4.2 Regarding NPPF and the enhancement of biodiversity on Site, it is recommended that the measures detailed below are included in the scheme. Once the results of the recommended protected species surveys are known, there may be further species-specific recommendations, such as a method statement and habitat enhancement for species.

Planting

- Climbing plants can be included on the converted buildings to soften its visual impact whilst enhancing biodiversity by attracting invertebrates, such as moths, and providing bird nesting opportunities. Species such as honeysuckle, ivy, clematis, jasmine, and single-flowered roses are all suitable.
- Where landscape planting is proposed throughout the gardens, it is recommended that a range of nectar-rich plants are considered. Flowering plants should be made available for as long as possible through the year by planting a combination of plants which flower during spring, summer and late summer. This would benefit local wildlife by providing more nest building opportunities and food sources for small mammals, birds and invertebrates. Species such as lavenders, heathers and honeysuckles are good nectar sources for bumblebees and other insects, and honeysuckle can also be used by birds to forage and nest in.

Birds

- To maintain the value of the Site for birds, it is recommended that bird boxes are included around the development. The *Vivara Pro Seville 32mm WoodStone Nest Box* would attract a range of species including blue tit *Cyanistes caeruleus*, coal tit *Periparus ater*, great tit *Parus major*, tree sparrow *Passer montanus*, house sparrow *P. domesticus* and nuthatch *Sitta europaea*. Three of these boxes

should be placed at a height of 1.5 – 3m on the eastern or western side of the dwellings / tree. It should be located away from windows and doors.

- The *Vivara Pro Barcelona WoodStone Open Nest Box* is suitable for a range of small birds: wrens, robins, spotted flycatchers, pied and grey wagtails, song thrushes and blackbirds. Two of these boxes should be positioned between 1.5 – 3m, ideally in undergrowth (such as ivy or a planted climber) on a wall to provide some cover.

Hedgehog

- If any close board fencing is to be installed around the Site or gardens, 13cm x 13cm holes should be cut into the base of the fences to allow hedgehogs to move through the landscape. It is also recommended that one hedgehog nest box, such as the Hedgehog Nest Box or HH7 Hogilo Hedgehog House is installed within the onsite ancient woodland or ancient woodland buffer.

5.0 CONCLUSIONS

5.1 A Preliminary Ecological Appraisal has been undertaken of an area of land west of Church Lane, Laughton, East Sussex in May 2022. The proposals are for the redevelopment of the Site into residential dwellings, however at this stage no detailed plans have been provided.

5.2 Due to the size of the Site it is thought only small numbers of bats would use the Site for commuting and foraging. Therefore no designated activity surveys are required.

5.3 Great crested newts have been recorded within a 250m radius of the Site. The nearest pond is some 53m west of the Site, with an additional five ponds within a 250m radius. A HSI assessment of all six ponds (P1 – P6) have been recommended to assess their suitability to support GCN. If ponds are found suitable, the presence / likely absence surveys will be required. If GCN are identified within any of the ponds an EPSM licence from natural England may be required.

5.4 The Site as potential to support a population of common species of reptile such as slow worm, grass snake and common lizard. Surveys have therefore been recommended to determine the presence / likely absence of reptiles within the Site.

5.5 The Site's hedgerows provide suitable food sources for foraging dormice as well as providing suitable habitat for nesting. It is understood that there will be no direct impacts on the hedgerows, therefore no further surveys are required. However, if the design for the scheme changes and sections of hedgerows are to be removed, further surveys may be required.

5.6 Recommendations to protect breeding birds and foraging badgers and hedgehogs during the works have been provided.

5.7 Recommendations have also been made for enhancing the Site for biodiversity in accordance with NPPF. These include generous native planting and the installation of bird boxes, hedgehog house and maintaining connectivity for hedgehog.

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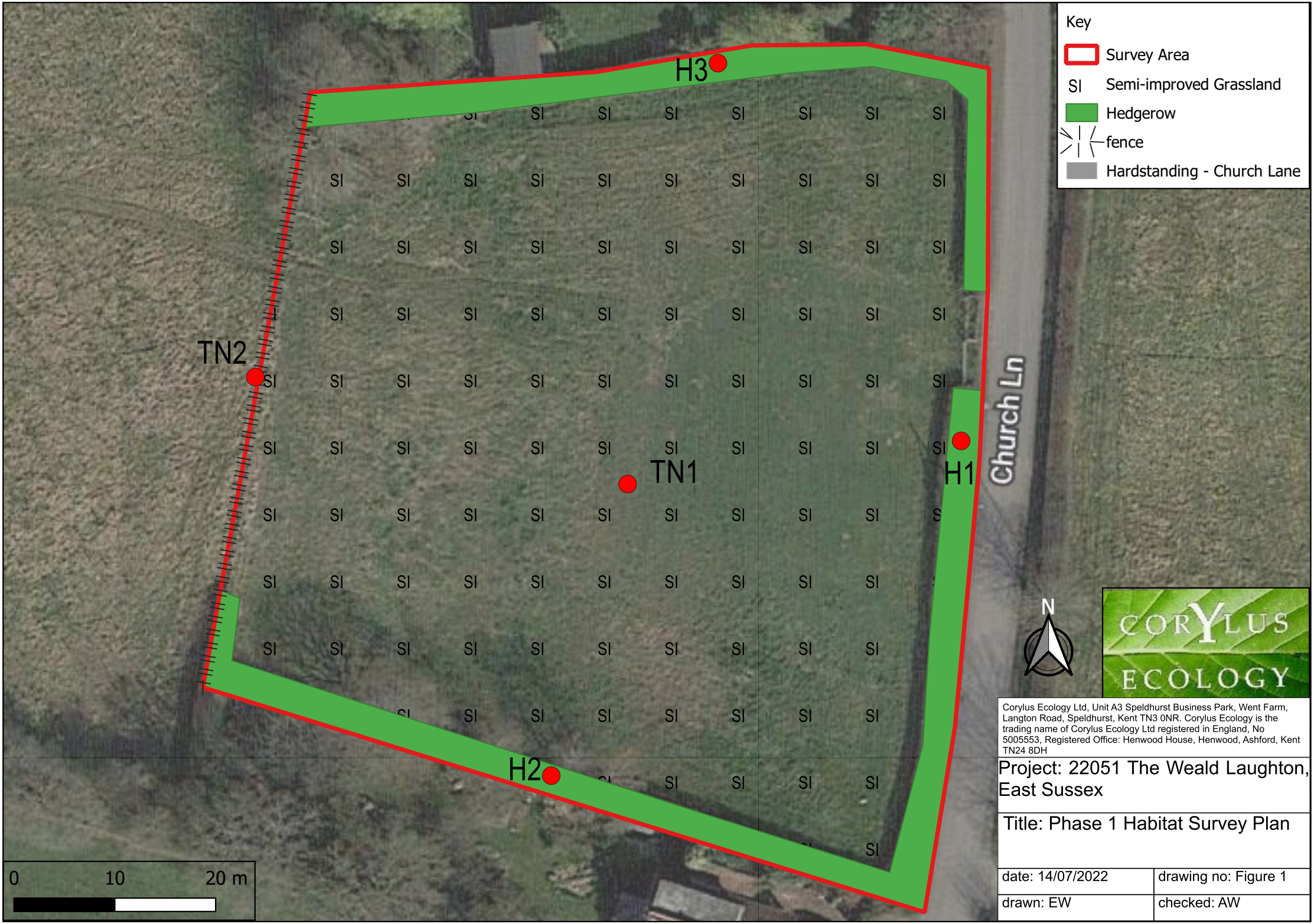
FIGURES



CORYLUS ECOLOGY

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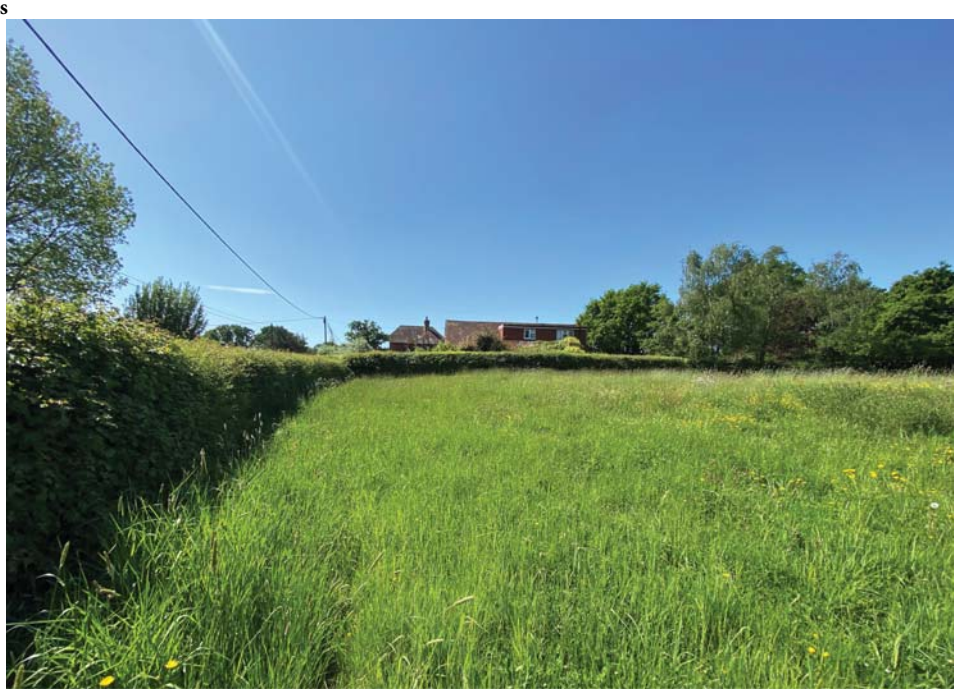
Project: 22051 The Weald Laughton, East Sussex

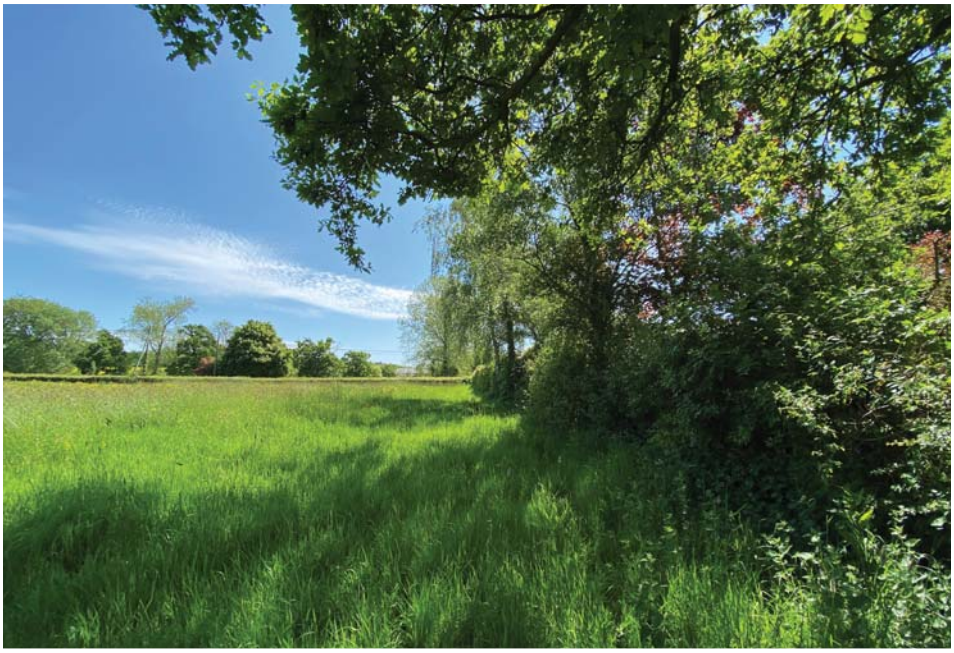
Title: Phase 1 Habitat Survey Plan

date: 14/07/2022	drawing no: Figure 1
drawn: EW	checked: AW

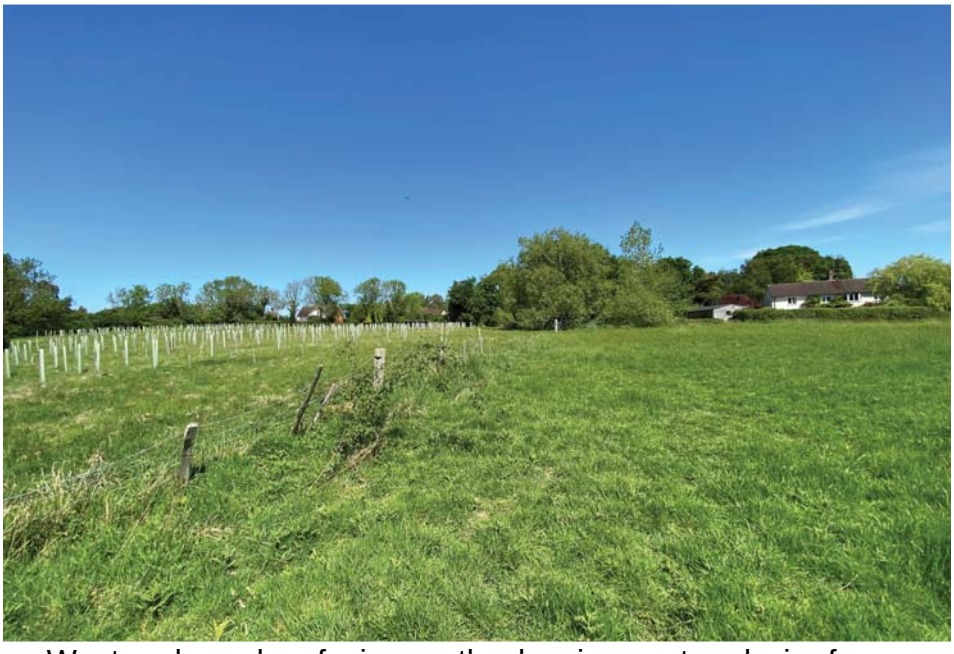
Figure 2 - Annotated Photographs



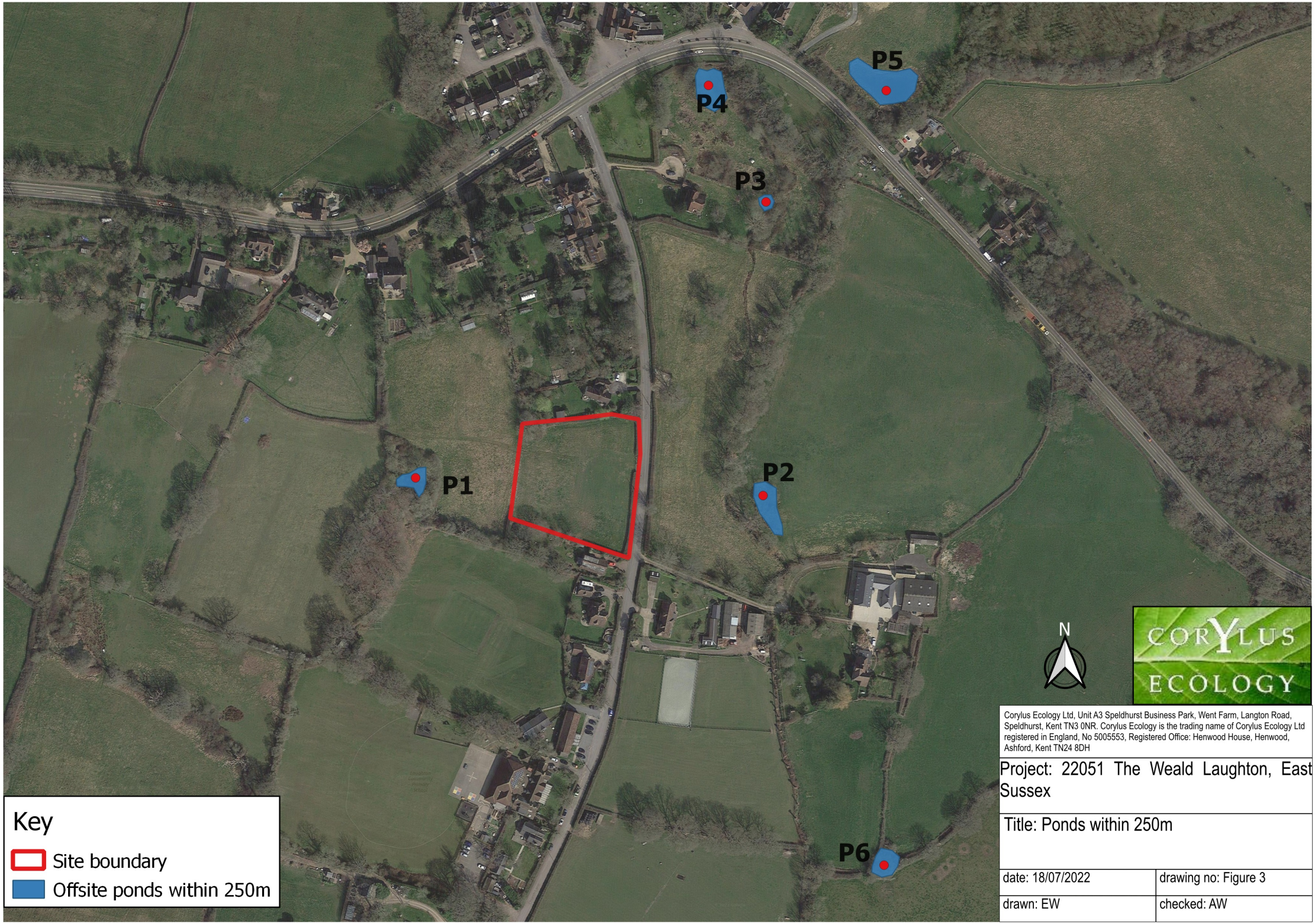
Eastern boundary facing south, showing H1 and H2 and tussocky grassland, TN1



Southern boundary facing east, showing H2 with trees and tussocky grassland, TN1



Western boundary facing north, showing post and wire fence along western boundary and northern hedgerow H3



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Project: 22051 The Weald Laughton, East Sussex

Title: Ponds within 250m

date: 18/07/2022	drawing no: Figure 3
drawn: EW	checked: AW

APPENDICES

Appendix 1 – Bat Legislation

All British bat species receive legal protection in the United Kingdom. The Wildlife and Countryside Act 1981 (WCA) (as amended) transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). The 1981 Act was recently amended by the Countryside and Rights of Way (CRoW) Act 2000 and the more recent Habitats Regulations amendments (2017). All British bat species are listed under Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which makes it an offence to:

- Intentionally kill, injure or take a bat [Section 9(1)];
- Possess or control any live or dead specimen or anything derived from a bat [Section 9(2)]
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection [Section 9(4)(b)];
- Intentionally or recklessly obstructs access to any structure or place which a bat uses for shelter or protection [Section 9(4)(c)]
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisements to buy or sell a bat [section 9(5)]

Bats are also included on Annex IV of Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the UK ratifying this directive, all British bats are protected under The Conservation of Habitats and Species Regulations 2017 (The Conservation Regulations). Annex IV of the Habitats Directive requires member states to construct a system of protection as outlined in Article 12, this is done through Part 3 of the Regulations whereby Regulation 41 makes it an offence to:

- Deliberately capture, kill or injure a bat [Regulation 41(1)(a)];
- Deliberately disturb bats in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young, OR
  ii) the local distribution of that species. [Regulation 41(1)(b) and 41(2)];
- Damage or destroy a breeding site or resting place of a bat [Regulation 41(1)(d)].

Under the law, a roost is any structure or place used for shelter or protection. This could be any structure, for example, any building or mature tree. Bats use many roost sites and feeding areas throughout the year. These vary according to bat age, condition, gender and species, as well as season and weather. Since bats tend to re-use the same roosts for generations, the roost is protected whether the bats are present or not.

In addition, four species, the two horseshoes, barbastelle and Bechstein's are included within Annex II of the Habitats Directive for which Member States are required to designated Special Areas for Conservation (SAC's) for their protection.

The UK is a signatory to the Agreement on the Conservation of Bats in Europe, established under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Appendix 2 – Amphibian Legislation

All British amphibian species receive legal protection in the United Kingdom though the degree to which different species are protected varies. The Wildlife and Countryside Act 1981 (WCA) (as amended) transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). The 1981 Act was amended by the Countryside and Rights of Way (CRoW) Act 2000 and the more recent Conservation Regulations (2007, 2017). The great crested newt is listed under Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt [Section 9(1)];
- Possess or control any live or dead specimen or anything derived from a great crested newt [Section 9(2)]
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for shelter or protection [Section 9(4)(b)];
- Intentionally or recklessly obstruct access to any structure or place which a great crested newt uses for shelter or protection [Section 9(4)(c)]Sell, offer for sale, possess or transport for the purpose of sale or publish advertisements to buy or sell a great crested newt [section 9(5)]

The other more common amphibian species are protected against sale (Section 9(5)) only. In all cases, the legislation applies to all life stages including spawn, eggs, juveniles and adults.

The great crested newt is also included on Annex IV of Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the UK ratifying this directive, the great crested newt is protected under The Conservation of Habitats and Species Regulations 2017 (The Conservation Regulations). Annex IV of the Habitats Directive requires member states to construct a system of protection as outlined in Article 12, this is done through Part 3 of the Regulations whereby Regulation 41 makes it an offence to:

- Deliberately capture or kill a great crested newt [Regulation 41(1)(a)];
- Deliberately disturb great crested newts in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young, OR ii) the local distribution of that species. [Regulation 41(1)(b) and 41(2)];
- Damage or destroy a breeding site or resting place of a great crested newt [Regulation 41(1)(d)].

Appendix 3 - Reptile Legislation

All British reptiles are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) largely as a consequence of a national decline in numbers due to habitat loss. Under the terms of the Act, it is an offence to intentionally kill or injure a reptile and accordingly in order to avoid committing an offence under the Act, appropriate mitigation techniques need to be incorporated for reptiles occurring within development sites. Mitigation methods for reptiles may include trapping and relocation of animals to a suitable receptor site, combined with the exclusion of the development site through the use of reptile fencing. Measures to enhance habitats for reptiles include the provision of hibernacula and appropriate management to improve foraging areas may also be required.

Mitigation for the more common British reptiles and amphibians does not require a licence from Natural England but would typically be agreed in consultation with the local planning authority.

Despite the range of their distribution and the diversity of habitats in which they may be found, the national status of the slow worm is not considered favourable. The slow worm is considered to have undergone a long term decline since the 1930's. Currently the largest threat has been identified as loss of habitat, in particular, due to a shift in planning policy towards the development of brown field sites (English Nature, 2004).

Appendix 4 - Technical Guidance on Artificial Lighting and Bats

From: Institute of Lighting Professionals (ILP) and Bat Conservation Trust (BCT). 2018. *Guidance Note 8: Bats and Artificial Lighting.*

Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires:

- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700 Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill.
- Low level or bollard lighting can often cause unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition. Therefore the use of specialist bollard or low-level downward directional luminaires should only be considered if their use is directed by a lighting professional.
- The height of columns should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light.
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1 minute) timers.
- As a last resort to minimise, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.