Ecological Review

Project: Little Park Farm, Hurstpierpoint

Technical Note TN01: Initial Review of Ecological Constraints and Opportunities

01 April 2022

1 Introduction

1.1 Aspect Ecology is advising Rydon Homes Ltd. in respect of development of Land at Little Park Farm, Hurstpierpoint, West Sussex, hereafter referred to as the "the site". Aspect Ecology has been commissioned to overview the ecology at the site and surrounding area in order to assess the ecological deliverability of the proposals.

1.2 In order to assess the site, Aspect Ecology has carried out a desktop study and a rapid Phase 1 Habitat survey with a general faunal assessment. This Technical Note sets out an overview of the ecological status of the site, key possible constraints and opportunities and assesses the deliverability of the site in ecological terms, based on survey work carried out to date.

1.3 It is understood that survey work was undertaken at the site in 2012 by a third party consultant[1]. Where relevant, the results of this survey work have been used to inform this assessment.

2 Methodology

2.1 The assessment below comprises two stages, namely a desktop review of existing ecological data for the local area and a rapid habitat mapping exercise and general faunal assessment of the entire site.

Desktop Study

2.2 In order to compile background information on the site and its immediate surroundings, the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, has been queried to identify the presence of any statutory designations within the site and/or the local area. In addition, Sussex Biodiversity Record Centre (SBRC) has been contacted to obtain records of non-statutory ecological designations and records of protected species.

[1] Ecology Solutions Ltd. (2012) Ecological Assessment. Land at Little Park Farm and Highfield Drive, Hurstpierpoint, West Sussex

Rapid Compartment Mapping Exercise and General Faunal Assessment

2.3 A rapid, high level habitat survey was undertaken of the site in February 2022, based on standard Phase 1 Habitat Survey methodology[2], whereby habitat within each compartment are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey (any such areas identified can then be examined in more detail through Phase 2 surveys). General faunal activity, such as mammals or birds observed visually or by call during the course of the survey was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species.

3 Discussion of the Ecological status of the Site

3.1 In order to frame an understanding of the potential suitability of the site to receive development, the current ecological value of the site is first discussed, as set out below under the headings 'Ecological Designations', 'Habitats' and 'Fauna'. The constraint proposed by each of these elements is also summarised.

Ecological Designations	
Constraint	**Low**
Notes	Ecological designations in proximity to the site are shown on Plan 6467/CON1. *European designations*: A 15km radius from the site has been searched for the presence of European designations. No European designations are present within the site. Two European designations are present within 15km, namely: Castle Hill Special Area of Conservation (SAC) located 12.2km to the south of the site and Lewes Downs SAC located 14.8km to the south-east of the site. Castle Hill SAC is designated on the basis of its semi-natural dry grasslands and scrubland facies on calcareous substrates which are an important habitat for many orchid species including supporting the largest colony of Early Spider Orchid *Ophrys sphegodes* in the UK. Lewes Down SAC is also designated on the basis of its semi-natural dry grasslands and scrubland facies on calcareous substrates which support an important assemblage of rare and scarce orchids including Early Spider-orchid, Burnt Orchid *Orchis usulata* and Mask Orchid *Herminium monorchis.* The colony of Burn Orchid is the largest in the UK. *Other statutory designations*: There are no statutory ecological designations mapped within the site or within 2km of its boundaries. The closest other statutory designation comprises Wolstonbury Hill Site of Special Scientific Interest (SSSI) located 2.5km south of the site. The SSSI is designated on the basis of its species rich chalk grassland habitat. The next closest other statutory designation comprises Clayton to Offham Escarpment SSSI located 3.2km to the south-east of the site. The SSSI is designated on the basis of its uncommon chalk grassland habitat which supports a rich community of breeding birds. The site lies within the Impact Risk Zone (IRZ) of Wolstonbury Hill SSSI within which Natural England must be consulted on planning applications which are relevant to the identified risks to the SSSI. These include development involving aviation proposals, any industrial/agricultural development which could cause air pollution and any oil and gas exploration or extraction. The IRZ is therefore not relevant to proposals for residential development.

[2] Joint Nature Conservation Committee (2010) 'Handbook for Phase 1 habitat survey: A technique for environmental audit.'

	Non-statutory designations: There are no non-statutory ecological designations within the site or within 2km of its boundaries.

Habitats	
Constraint	**Moderate** (subject to further survey work)
Notes	**Ancient Woodland:** An area of ancient woodland listed on the national inventory called Sandfield Shaw (mapped on MAGIC as Ancient and Semi-Natural Woodland) is present within the north of the site, with a portion extending off-site to the north. An additional area of ancient woodland named Tilley's Copse (mapped on MAGIC as Ancient and Semi-Natural Woodland) is mapped adjacent to the western boundary of site. **Priority Habitats:** Sandfield Shaw present in the north of the site is mapped as Priority Habitat Deciduous Woodland. Further areas adjacent to the eastern and western site boundary are also mapped as Priority Habitat Deciduous Woodland (see Plan 6467/CON1). **National Habitat Network.** The majority of the site is included within the National Habitat Network as Network Enhancement Zone 2, with small portions in the east of the site mapped within Network Enhancement Zone 1 and a small portion in the south of the site mapped as Network Expansion Zone. Sandfield Shaw and a small on-site area adjacent to Tilley's Copse is also mapped as Class: Ancient Woodland. **Background Records.** A number of records of notable and protected plant species were returned from the desktop study, though no records originated from the site itself. These records include Bluebell *Hyacinthoides non-scripta*, Wild Strawberry *Fragaria vesca*, Field Woundwort *Stachys arvensis*, Red Hemp-nettle *Galeopsis angustifolia*, Wild Cabbage *Brassica oleacea*, Lesser Spearwort *Ranunculus flammula*, Tormentil *Potentilla erecta*, Hoary Plantain *Plantago media*, Wood Sorrel *Oxalis acetosella*, Welsh Poppy Papaver cambricum, Pink Waxcap *Hygrocybe calyptriformis*, Bloody Crane's-bill *Geranium sanguineum*, Rye Brome *Bromus secalinus*, Common Valerian *Valeriana officinalis*, Strawberry Clover *Trifolium fragiferum*, Devil's-bit Scabious *Succisa pratensis*, Ragged-robin *Silene flos-cuculi*, Sanicle *Sanicula europaea*, Common cow-wheat *Melampyrum pratense*, Jacob's Ladder *Polemonium caeruleum*, Dyer's Greenweed *Genista tinctoria*, Common Eyebright, Crosswort *Cruciata laevipes*, Soft Hornwort *Ceratophyllum submersum*, Harebell *Campanula rotundifolia*, Quaking-grass *Briza media*, Green-winged Orchid *Anacamptis morio*, Juniper *Juniperus*, Ivory Waxcap *Hygrophorus eburneus*, Fibrous Waxcap *Hygrocybe intermedia*, Spangle Waxcap *Hygrocybe inspida*, Slimy Waxcap *Gliophorus irragatus*. The habitat survey identified the following habitats within and adjacent to the site as shown on Plan 6467/CON2: • Improved Grassland; • Woodland; • Hedgerows; • Watercourses; • Ditches; • Tall Ruderal; • Dense Scrub; • Scattered Scrub; • Trees; • Pond; and • Buildings and Hardstanding. **Improved Grassland.** A total of seven improved grassland fields are present within the site, labelled as F1 to F7 on Plan 6467/CON2. Of the seven fields, two were being actively grazed by horses at the time of survey, with the remainder appearing to be actively managed via grazing or mowing.

At the time of survey, all fields were recorded to have a short sward height of approximately 5cm, with species such as Bristly Oxtongue *Helminthotheca echioides*, White Clover *Trifolium repens*, Creeping Buttercup *Ranunculus repens*, Yorkshire Fog *Holcus lanatus*, Meadow Grass *Poa sp.*, Cocksfoot *Dactylis glomerata*, Broad-leafed Dock *Rumex obtusifolius*, Cut-leaved Crane's-bill *Geranium dissectus*, Red Clover *Trifolium pratense*, Dove's-foot Crane's-bill *Gernium molle* and Ribwort Plantain *Plantago lanceolata* recorded within the sward.

Woodland. A single area of woodland is present within the site, with an additional area of woodland located off-site, adjacent to the western site boundary.

- **Woodland W1.** Woodland W1 comprises an off-site area of ancient woodland (mapped as W1 on Plan 6467/CON2) located adjacent to the western boundary and named Tilley's Copse. The canopy is dominated by Silver Birch *Betula pendula*, Oak *Quercus robur*, Ash *Fraxinus excelsior* and Cherry *Prunus avium*. The understorey is moderately sparse with species recorded including Holly *Ilex aquifolium*, Hazel and Bramble. At the time of survey, evidence of recent management including selective felling and coppicing of Hazel was recorded in the canopy and understory. Ground flora was sparce, dominated by Bramble with occasional Bluebell, Cut-leafed Crane's-bill, Lord's-and-Ladies *Arum maculatum* also recorded within the ground flora. A moderate amount of fallen and standing deadwood was recorded within the woodland. This woodland is mapped as Priority Habitat Deciduous Woodland on MAGIC and is considered to meet the qualifying criteria for this habitat. The woodland is also mapped as Semi-natural Ancient Woodland.

- **Woodland W2.** Woodland W2 comprises an area of woodland present within the north of the site, extending off-site to the north**.** The canopy is dominated by Ash with occasional Cherry and Yew *Taxus baccata*. The understorey comprises Honeysuckle *Lonicera periclymenum*, Hawthorn, Elm, Holly and Rose. The ground flora had a substantial covering comprising dominant Bluebell carpetd and occasional Wood Avens *Geum urbanum*, Cleavers, Primrose *Primula vulgaris*, Bramble, Lord's-and-Ladies, Dock *Rumex sp.*, Garlic Mustard *Alliaria petiolata*, Fescue *Fescuta sp.,* and Dog's Mercury *Mercurialis perennis*. Occasional lying and standing deadwood was recorded within the woodland. This woodland is mapped as Priority Habitat Deciduous Woodland on MAGIC and is considered to meet the qualifying criteria for this habitat type. The woodland is also mapped as Semi-natural Ancient Woodland.

Hedgerows. A total of fourteen hedgerows are present within the site, labelled H1 to H14 on Plan 6467/CON2. The initial assessment suggests the hedgerows are likely to qualify as Priority Habitat Hedgerows, however none appear to be meet the qualifying criteria for Important Hedgerows under the Hedgerow Regulations 1997. Notwithstanding this, the walkover survey was undertaken outside of the optimal botanical season and therefore, it is recommended further survey work is undertaken in relation to the hedgerows to confirm their status in relation to the Hedgerow Regulations 1997.

Watercourses. Two watercourses are present within the site boundaries (mapped as WC1 and WC2 on Plan 6467/CON2).

- **Watercourse WC1.** Watercourse WC1 is present along the western site boundary, located along the edge of offsite woodland W1 and comprising a channel approximately 0.5m deep and 1m wide. At the time of survey, watercourse WC1 supported approximately 10cm of fast flowing water, flowing in a north to the south direction. No aquatic or emergent vegetation was present within the channel of watercourse WC1 at the time of survey, however the watercourse was largely obscured by dense scrub and ruderal vegetation present on the edge of the woodland.

- **Watercourse WC2.** Watercourse WC2 is located along the southern boundary of Field F3 and flows through woodland W2 in an east to west direction. The watercourse was fast-flowing at the time of survey with approximately 10-20cm of water present. The channel

of the watercourse is approximately 0.5m deep and 2m wide, with a silt base grading to gravel in the west. The channel was chocked with debris such as branches and leaves at the time of survey, likely a result of the recent storms. Dense and Scattered scrub was present along the banks of the watercourse, dominated by Willow with occasional Alder and overshadowing the channel. Other species recorded to be present along the banks include Pendulous Sedge, Common Nettle, Mistletoe *Viscum album* and Hemlock Water-dropwort *Oenanthe crocata*.

Ditches. A total of six ditches are present within the site (as shown on Plan 6052/CON2) largely associated with field boundaries. The majority of the ditches were devoid of aquatic vegetation at the time of survey, with ditches D2, D4 and D6 recorded to be dry. Ditch D1, D3 and D5 had shallow running water no more than 2cm in depth. The banks of the ditches had occasional ruderal species present including Common Nettle *Urtica dioica*, Bramble *Rubus fruticose* agg., Lords and Ladies *Arum maculatum*, Creeping Buttercup *Ranunculus repens*, Cleavers *Galium aparine* and Bracken *Pteridium aquilinum.*

Tall Ruderal. A small area of tall ruderal vegetation is present to the north-east of Field F7 surrounding a derelict structure. Species present include Common Nettle, Bramble, Ivy *Hedera helix* and Rose *Rosa spp*.

Dense Scrub. Areas of dense scrub are present within the site, associated with on-site ponds, the western site boundary and adjacent to watercourse WC2. Species recorded include Hawthorn *Crataegus monogyna*, Elder *Sambucus nigra*, Blackthorn *Prunus spinosa* and Willow *Salix* sp. Elm *Ulmus procera* (dead), Pendulous Sedge *Carex pendula*, Bramble and Hazel *Corylus avellana*.

Scattered Scrub. Occasional areas of scattered scrub are also present within the site, particularly along the southern boundary of field F3 comprising Alder *Alnus glutinosa*, Willow *Salix sp.,* Rose and Bramble.

Trees. A number of scattered mature and semi-mature trees are present within the site, largely associated with the site field boundaries. Species recorded include Oak, Ask, Alder and Willow.

Ponds. A total of eleven ponds are present within the site or within 250m of the site boundaries, labelled as P1 to P11 on Plan 6467/CON2. Of these ponds, four are present within the site boundary and the remaining seven are located off-site as summarised below:

- **Pond P1.** Pond P1 is located between Fields F1 and F2 and is surrounded by dense scrub. The pond is approximately 10m in length by 10m in width, with no aquatic or emergent vegetation present. The pond was heavily chocked by leaf litter at the time of survey, with fallen branches from overshading trees present within the water. The pond held water at the time of survey and is considered unlikely to dry out. Conditions suggest fish may be present.

- **Pond P2.** Pond P2 is a woodland pond located within woodland W2. At the time of survey, Pond P2 was recorded to be mostly dry with occasional wet areas supporting less than 2cm of water, suggested the pond is likely ephemeral. A large Willow tree is present with the pond with occasional Pendulous Sedge.

- **Pond P3.** Pond P3 is located adjacent to the hardstanding track, south-east of field F5. The pond is approximately 5m long by 5m wide and was heavily overshaded by adjacent trees and dense scrub with no aquatic or emergent vegetation present. A large Willow was recorded to be growing within the pond.

- **Pond P4.** Pond P4 is located to the north of Hedgerow H11 and comprises a waterbody approximately 15m in length and 10m wide. Little aquatic and emergent vegetation was recorded within the pond which is heavily overshaded by adjacent dense scrub and tall

	ruderal vegetation. Species recorded include Willowherb *Epilobium sp*, Cleavers, Common Nettle, Yorkshire Fog, Lord's-and-Ladies and Forget-Me-Not *Myosotis sylvatica.* • **Pond P5.** Pond P5 is an off-site pond mapped approximately 30m to the south of the site. The pond was not accessible at the time of survey. • **Pond P6.** Pond P6 is located off-site, adjacent to the southern boundary of the site. The pond is approximately 20m in length by 15m wide and is overshaded by dense scrub dominated by Willow with infrequent emergent and aquatic vegetation including Willow Herb *Epilobium sp,*. • **Pond P7.** Pond P7 is located off-site, approximately 40m west of the site boundary. Pond P7 appears to comprise a Sustainable Drainage System (SuDS) feature. Aquatic and emergent vegetation was recorded to be present, dominated by Bulrush *Typha angustifolia* and Soft Rush *Juncus effusus*. • **Pond P8.** Pond P8 is an off-site pond comprising a SuDS feature located immediately north of pond P7. The SuDS feature is approximately 20m long by 5m wide with a shallow water depth of less than 2cm. Species recorded include Bulrush, Soft Rush and Willowherb *Epilobium sp*. • **Pond P9.** Pond P9 an off-site pond located to the north approximately 120m to the north of the site. The pond is approximately 30m in length by 20m in width, located within an area of off-site woodland. • **Pond P10.** Pond P10 is located off-site approximately 170m to the north of the site. The pond is located within a residential garden and was not accessible at the time of survey. • **Pond P11.** Pond P11 is located off-site within the adjacent existing residential development to the east of the site. The pond comprises a shallow SuDS feature with aquatic and emergent vegetation including Buttercup *Ranunculus* sp. and Soft Rush**.** **Buildings and Hardstanding.** A number of agricultural buildings and other structures are present within the site, largely comprising field shelters for horses within Field F4, F5, F6 and F7. The majority of the buildings / other structures are open fronted wooden stable buildings with corrugated metal roofs as well as a static caravan in the east of the site and a derelict structure in field F7. Small areas of hardstanding, including hardstanding tracks are also present within the site. These were devoid of vegetation at the time of survey and in regular use by motor vehicles.

Fauna	
Constraint	**Moderate** (subject to further survey work)
Notes	The habitats within the site have the potential to support a number of notable/protected species, as detailed below. **Bats**. The desktop study returned a number of bat records from with the 2km search area, including a record of Serotine *Eptesicus serotinus* adjacent to the eastern site boundary. Records returned from within the 2km search area include Barbastelle *Barbastella barbastellus*, *Myotis* Bat *Myotis sp.,* Bechstein's Bat *Myotis bechsteinii*, Daubenton's bat *Myotis daubentonii*, Natterer's Bat *Myotis nattereri*, *Noctule Nyctalus noctula,* Pipistrelle bat *Pipistrellus sp.,* Nathusius Pipistrelle *Pipistrellus nathusii,* Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *P. pygmaeus* and Brown Long-eared bat *Plecotus auratus*. The woodland present within and adjacent to the site provides suitable foraging and commuting habitat for bats in addition to well-connected hedgerows and the areas of dense and scattered scrub. The improved grassland fields also provide foraging opportunities for species such as

	Serotine. Survey work undertaken by the third party consultant in 2012 recorded low levels of activity from Common Pipistrelle, Soprano Pipistrelle and *Myotis sp.* A number of mature trees are present within the site that provide roosting opportunities for bats. As shown on Plan 6467/CON2, two trees were assessed as supporting features of low bat roosting potential, eight supported features of moderate bat roosting potential and one tree supported features of high bat roosting potential. The buildings within the site did not support suitable features for roosting bats and as such, are of negligible bat roosting potential. **Badgers.** No records of Badger *Meles meles* were returned from the desktop study. No evidence of Badger was recorded during the survey work undertaken, though an exhaustive search was not carried out. The habitats present within the site provide suitable habitat for Badger foraging and sett building. During the survey work undertaken by the third-party consultant in 2012, a main Badger sett was recorded to be present within an off-site woodland, approximately 0.1km west of the site. This area of woodland is now separated from the site by recent residential development. **Dormouse.** The desktop study returned one record of Dormouse *Muscardinus avellanarius* from 2019 located approximately 1.5km to the south of the site, associated with Stonecroft Copse ancient woodland. The woodland habitats within the site offer some opportunities for Dormice as they comprise Hazel stands that the species favours, offering high quality opportunity. In addition to the well-connected hedgerow network throughout the site and dense scrub offer foraging and commuting opportunities. Survey work undertaken by the third party consultant in 2012 found no evidence of Dormouse within the site. This survey work however, is now considered out of date. **Otter and Water Vole.** The desktop study returned two records of Water Vole *Arvicola amphibius,* dating from 2008 and 2015 from within the 2km search radius. The closest record is located approximately 1.2km to the north-west of the site, with the second located approximately 1.5km to the south-east of the site. No records of Otter *Lutra lutra* were returned from the desktop study. Two watercourses (WC1 and WC2) are present within/ adjacent to the site which provide suitable habitat for Water Vole and Otter, although no evidence of either species was recorded during the survey work undertaken to date. The ditches within the site are considered largely unsuitable due to their shallow and overshaded nature. The survey work undertaken by the third party consultant did not include consideration for Water Vole or Otter within the scope of the assessment. **Other Mammals.** A number of records of Hedgehog *Erinaceus europaeus,* Brown Hare *Lepus* europaeus, and American Mink *Neovison vison* were returned from the desktop study from within the 2km search area. A single Harvest Mouse *Micromys minutus* record, dated 1996, was returned approximately 2.1km to the west of the site. In addition, records of common species such as Chinese Muntjac deer *Muntiacus reevesi* were also returned. None of these records originated from within the site itself. The areas of woodland, hedgerows and dense scrub habitats present within the site provides foraging and refuge opportunities for Hedgehog and the improved grassland fields provide suitable habitat for Brown Hare. The site also provides suitable habitat for common species such as Fox *Vuples vulpes* and deer species. During the walkover survey Roe Deer *Capreolus capreolus* were recorded within woodland W2 and field F4. **Birds.** The desktop study returned a large number of bird records from within the 2km search area. Within the site itself, records of Tree Sparrow *Passer montanus*, Osprey *Pandion haliaetus* and Kestrel *Falco tinnunculus* were returned. Species of relevance given the habitats present on site include Red List species such as Swift *Apus apus*, Lapwing *Vanellus vanellus*, Herring Gull *Larus argentatus*, Woodcock *Scolopax rusticola*, Bittern *Botaurus stellaris*, Cuckoo *Cuculus canorus*, Merlin *Falco columbarius*, Skylark *Alauda arvensis*, Corn Bunting *Emberiza calandra*, Yellowhammer *Emberiza citrinella*, Hawfinch *Coccothraustes coccothraustes*, Linnet *Carduelis*

cannabina, House Martin *Delichon urbica*, Nightingale *Luscinia megarhynchos*, Spotted Flycatcher *Muscicapa striata*, Whinchat *Saxicola rubetra*, Marsh Tit *Poecile palustris*, House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris* and Mistle Thrush *Turdus viscivorus.* Records for the Schedule 1 species Barn Owl *Tyto alba* was also returned, with the closest record located approximately 0.18km to the south of the site.

The habitats present within and adjacent to the site, particularly the improved grassland fields, woodland, trees, areas of dense scrub and hedgerows have the potential to support a range of breeding birds, including farmland bird species. During the walkover survey, a number of species were identified including approximately 100 Starling in field F7, Yellowhammer and Goldfinch *Carduelis carduelis* within hedgerow H1 and Green Woodpecker *Picus viridis*, Blue Tit *Cyanistes caeruleus* and Great Tit *Parus major* within woodland W1.

Amphibians. The desktop study returned a number of records of Great Crested Newt *Triturus cristatus* from within the 2km search area. The closest record, dated 2017, is located approximately 0.1km to the north of the site associated with pond P10. The second closest record is located approximately 0.3km to the south-west of the site, dating from 2005.

A number of ponds were identified within the site and within 250m of the site boundary during the survey work undertaken. A Habitat Suitability Index (HSI) assessment of the accessible on-site and off-site ponds was undertaken, the result of which are summarised below:

- Pond P9 was assessed as being of 'excellent' suitability for Great Crested Newt;
- Ponds P4 and P6 were assessed as being of 'good' suitability for Great Crested Newt;
- Ponds P7 and P11 was assessed as of 'average' suitability for Great Crested Newt;
- Ponds P3 was assessed as being of "below average" suitability for Great Crested Newt; and
- Ponds P1, P2 and P8 were assessed as being of 'poor' suitability for Great Crested Newt.

Previous survey work undertaken by a third-party in 2010 confirmed the presence of a medium population of Great Crested Newt in pond P4 within the site, and P6 which lies adjacent to the southern site boundary. A Natural England Great Crested Newt mitigation licence was subsequently granted in 2015 using this survey data for the development site adjacent to the western site boundary. Under this licence, a new balancing pond is to be created within field F6 to compensate for the loss of intermediate terrestrial habitat. However, at the time of survey, this area was an active construction site and not accessible to confirm whether the balancing pond had been constructed or held water.

Reptiles. The desktop study returned records of four reptile species, namely Slow-worm *Anguis fragilis,* Grass Snake *Natrix natrix,* Common Lizard *Zootoca vivipara* and Adder *Vipera berus* from within the 2km search area. A record of Adder was returned from within the site dated from 2006, located within field F5. The closest record from off-site was for a Slow-worm located approximately 0.18km to the south-east of the site.

The habitats within the site support suitable habitat for reptiles, comprising tussocky improved grassland, tall ruderal vegetation and dense scrub, albeit the grazed nature of the grassland does reduce the suitability somewhat.

During the survey work undertaken by the third party consultant in 2012, Common Lizard, Grass Snake and Slow Worm were recorded to be present within the site. However, this survey work is now considered out of date.

Invertebrates. The desktop study returned a number of invertebrate records from within the 2km search area, including records for Small Heath *Coenonymppha pamphilus* within the site boundary.

	The habitats on site provide opportunities for a range of invertebrate species including the species returned from the data search, albeit no habitats of particularly elevated value are present save for in respect of the larger mature trees (e.g. Oaks).

4 Discussion of Ecological Deliverability of the Site

Designations

4.1 No European, statutory or non-statutory designations are present within or adjacent to the site. The nearest European Designation comprises Castle Hill SAC located 12.2km to the south of the site, with the closest statutory comprising Wolstonbury Hill SSSI located 2.5km south of the site. No non-statutory designations are present within 2km of the site boundary. All European, statutory and non-statutory designations are well separated from the site by existing residential development or agricultural land and given the likely nature and scale of any future proposals, it is considered unlikely that any European, statutory or non-statutory designations will be adversely affected by any future residential development at the site.

Habitats

4.2 The site is dominated by regularly managed / grazed improved grassland which is of low ecological value. The ponds, scattered trees, tall ruderal and dense scrub hold some ecological value in the context of the site but are not considered to be significant within a wider context, whilst the woodland (mapped as ancient semi-natural woodland) and hedgerows are considered to qualify as Priority Habitat.

4.3 It should be readily achievable to develop a masterplan for the site that focusses development on the improved grassland fields in order to retain the features of comparatively greater ecological interest as far as possible. The woodland (mapped as ancient woodland) should be retained, with a minimum 15m buffer from built development incorporated into the masterplan. The hedgerows should be retained as far as possible. Due to the size of the site it appears at this stage it would be possible to accommodate any compensation for habitat losses to the proposals elsewhere within the site.

4.4 There are a number of opportunities to deliver habitat enhancements and strategic habitat creation within the site, as shown on Plan 6467/CON2. The northern portion of the site is mapped as “Network Enhancement Zone 2” and as such, the opportunity exists to enhance the Woodland habitat within these areas and to increase connectivity across the site. Connecting areas of fragmented habitat and enhancing woodland is encouraged by the local planning authority in line with the requirements of Policy DP37 and DP38 of the Mid-Sussex District Plan (adopted 2018)

4.5 It is recommended that an initial, high level Biodiversity Net Gain assessment of the development parameters is undertaken with assumptions made regarding habitat creation within areas of proposed greenspace in order to confirm whether future development proposals are capable in providing a net gain in biodiversity.

Protected Faunal Species

4.6 As set out above, initial survey work has identified the potential to support a number of protected faunal species within the site, including bats, Dormouse, Otter, Water Vole, breeding birds, Great Crested Newt and reptiles.

4.7 Any future planning application should be informed by phase 2 protected species survey work (see below), for these species carried out at a suitable time of year in accordance with published guidance. The survey work will establish the ecological baseline for the site and inform any emerging layouts for development.

4.8 Due to the size of the site, there would likely be sufficient space available to deliver any necessary mitigation and further enhancements for a variety of species.

4.9 Development of a sensitive layout which retains the habitats of greater comparative value (e.g. Woodland, hedgerows) would also minimise the effects of the proposals on any potential protected species on-site. Due to the size of the site, there would likely be sufficient space available to deliver the necessary mitigation and further enhancements for a variety of species if present such as bat and bird boxes (on trees), installation of hedgehog domes, and provisions of cut-outs in garden fences to allow Hedgehogs to move around the development. The ecological enhancements will target Local Biodiversity Action Plan (LBAP) species to ensure future development proposals contribute towards the local action plan targets.

4.10 Further, the site is not currently subject to active conservation management. Therefore, a sensitive development of the site creates an opportunity to bring retained and new habitats in addition to adjacent country park into active conservation management, with management prescriptions designed to benefit the fauna that may be present.

5 Policy and legislative considerations

5.1 Any proposals will be subject to review by the local authority (Mid-Sussex District Council) against policies within the local development plan and legislation.

5.2 In terms of policy, Mid-Sussex District Plan[3] provides protection for biodiversity and sets out development will be refused if harmful to any sites of wildlife importance or sites supporting protected species. Accordingly, this is a key test that any proposals will need to overcome i.e. to demonstrate that the woodland within the site and off-site is not harmed as a result of the proposals. This will need careful examination as to how this could be achieved but, as indicated above, may include the enhancement of the retained areas of woodland.

5.3 This approach is further supported by the Policy DP38: Biodiversity within the district plan which sets out that where development that affects biodiversity is unavoidable, a net gain in biodiversity should be achieved on site. Exceptionally, off site proposals for a net gain through habitat creation and / or improvement may be considered, as an ‘offset’ to loss and damage caused by the development. Furthermore, the Environment Bill 2021 now mandates all sites to provide a 10% net gain in biodiversity, which is understood to come into force over the next two years.

5.4 It will also be necessary for any proposals to demonstrate that any species protected by legislation are safeguarded or adverse effects on them appropriately mitigated. Accordingly, it is key that survey work is carried out to determine the value of habitats and presence / absence of fauna so that the design and layout of the proposals can be tested and an appropriate mitigation strategy formulated.

[3] Mid Sussex District Plan 2014 - 2031.

6 Recommended Phase 2 Survey Work

6.1 Based on the above, a number of Phase 2 surveys are recommended in order to build up a robust baseline for the site to inform a sensitive scheme layout. These are summarised in Table 1 below along with details on the required survey effort and timings.

Table 1: Summary of recommended Phase 2 surveys

Survey Type	Reason for Recommendation	Survey Effort	Optimal Survey Windows
Bat Emergence / Re-entry Survey (trees)	Ascertain use of trees by roosting bats (for the trees identified as being of bat roosting potential (BRP) during Bat Inspection survey) should they be lost or affected by future development.	Low BRP: No survey required. Tree to be removed using soft-felling methodology. Moderate BRP: One dusk emergence and separate dawn re-entry survey per tree; High BRP: Three dusk emergence or dawn re-entry survey per tree (must be one dusk emergence and separate dawn re-entry survey with third either dusk emergence or dawn re-entry);	Moderate BRP: May – September with at least one survey May – August High BRP: May – September with at least two surveys May – August
Bat activity	To determine the assemblage of bats making use of the site for commuting and foraging in order to identify any areas of relative greater importance/areas requiring retention to inform the layout.	Walked transect surveys and remote static monitoring. In line with guidance it is considered the site may be of moderate importance to bats and therefore monthly surveys are required.	Monthly April-October
Dormouse	Suitable Dormouse habitat is present within the site. If present, mitigation will be required and a Natural England mitigation licence is likely to be necessary, along with consideration of retaining key habitats within the layout.	Nest tubes are deployed and then checked for Dormouse nests monthly/every 2 months. Guidance states that suitable survey effort has been carried out when 20 indexation points are obtained, with different points allocated to different months. Generally, the nest tubes will need to be in place from at least May-September or June-October. Overall, at least five visits are likely to be needed (one to set up the nest tubes and a further four checking surveys).	May-September Or June – October
Water Vole	Suitable Water Vole habitat is present within the site. If present and development proposals are likely to affect relevant watercourses, mitigation will be required and a Natural England mitigation licence is likely to be necessary, along with consideration of retaining key habitats within the layout.	Two survey visits to establish presence / likely absence. One survey early season (mid-April to June), second visit July to September would be required, with two surveyors necessary due to working near water.	One survey mid-April to June, second visit July-September
Otter	Suitable Otter habitat is present within the site. If present and development proposals are likely to affect relevant watercourses, mitigation will be required and a Natural England mitigation licence is	One survey required although two is recommended. If presence of Otter is recorded, trail cameras may need to be deployed to inform mitigation and licencing.	Any time of year

	likely to be necessary, along with consideration of retaining key habitats within the layout.		
Birds (Breeding Birds)	Habitat present within the site has the potential to support nesting birds including woodland, dense scrub, hedgerows and improved grassland. A number of farmland birds species were also recorded within the site during the habitat survey including Skylark and Yellowhammer. Further survey work is recommended to determine the importance of the breeding assemblage at the site.	Three survey visits	March – July (optimal April – June)
Great Crested Newt	Four on-site ponds and seven off-site ponds which are present within 250m of the site boundary, of which two are known to support Great Crested Newt. The site also supports terrestrial habitat. Surveys are required to determine whether Great Crested Newts are present, and the population size. If present, mitigation and a Natural England licence is likely to be necessary, along with consideration of retaining key habitats within the layout.	eDNA surveys could be carried out to determine presence/absence, these require a single visit between mid-April and the end of June. If present, standard surveys x6 are then still required to determine the population size. Standard surveys x4 can identify presence/likely absence and involve torchlight surveys, bottle trapping and netting/egg searching. Where found to be present, an additional 2 surveys are required to determine the population size. District Level Licensing (DLL) is not currently available within West Sussex district, but may well be available in the future and can remove the need to carry out survey work if the development joins the scheme.	eDNA – mid-April-end June Standard surveys: mid-March – mid June, with half the surveys carried out between mid-April and mid-May
Reptiles	Desktop study returned records of Adder within the site. Suitable habitat is present within the site and if found to be present mitigation will be required. Key areas of habitat may need to be retained within the layout.	One visit to set up artificial refugia and seven visits to check these for the presence of reptiles (8 visits total)	March – September (avoiding July and August of possible)

7 Summary

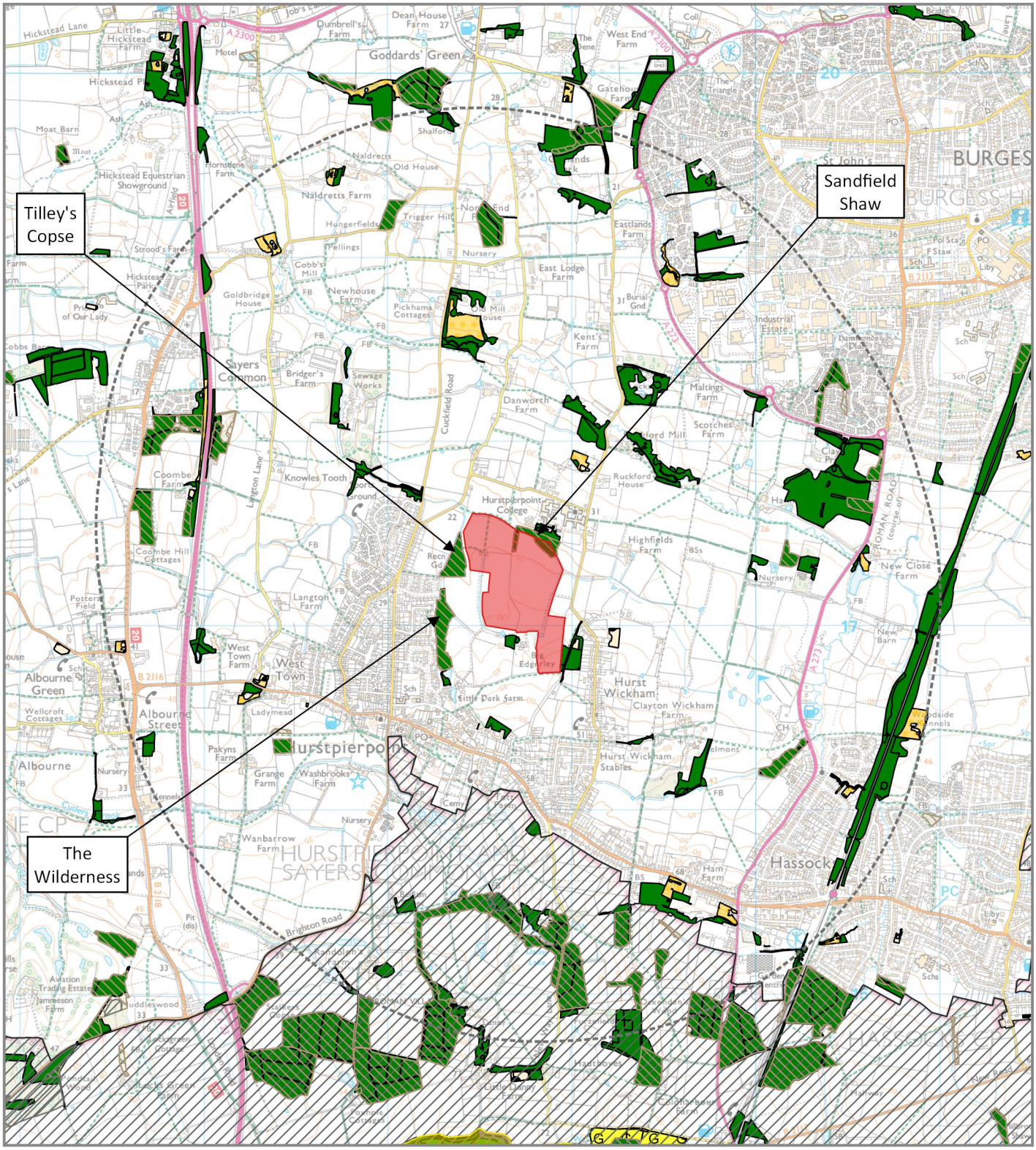
7.1 In summary, the site is not constrained by any statutory or non-statutory designations. The site lies within an Impact Risk Zones (IRZ's) for a nearby Site of Special Scientific Interest, although the nature of the development does not appear to meet the criteria which would trigger consultation between the Local Planning Authority and Natural England.

7.2 The site is dominated by improved grassland fields with areas of scattered scrub, dense scrub, tall ruderal which have low ecological value. Other habitats of ecological value in the context of the site include Priority Habitat Woodland (mapped as ancient woodland) and hedgerows, mature trees and ponds. It will be readily available to develop a sensitive masterplan which retains habitats of comparatively elevated value as far as possible by focussing development on the improved grassland. The opportunity exists to deliver strategic habitat creation and

enhancements which will contribute to local action targets and to bring the site into active management to benefit biodiversity. As the scheme progresses, the layout will be periodically reviewed to ensure the masterplan deliver 10% net gain in relation to habitats.

7.3 The site has the potential to support a number of protected species and it is recommended that further faunal surveys are undertaken to identify the interest present and inform any development proposals. With the use of sensitive design and construction, it is likely that mitigation solutions would be available to manage any identified interest and ensure the species future is safeguarded through the use of development enabled conservation management prescriptions.

7.4 Accordingly, it is considered that a sensitively designed development would be ecologically deliverable within the site which would be able to provide a number of biodiversity benefits.



Key:

- Site Location
- 2km study Area
- Ancient Replanted Woodland
- Ancient Semi Natural Woodland
- South Downs National Park
- Deciduous woodland
- Good quality semi-improved grassland
- Lowland calcareous grassland
- No main habitat but additional habitats present
- Traditional orchard

No non-statutory sites within 2km of the Site Boundary

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Little Park Farm, Hurstpierpoint	PROJECT
Ecological Designations	TITLE
6467/CON1	DRAWING NO.
A/BG	REV
March 2022	DATE

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Key:

- Site Boundary
- Survey Boundary
- Dense Scrub
- Hardstanding
- Improved Grassland
- Pond
- Structure
- SuDS
- Woodland
- Ditch
- Hedgerow
- Tree Group
- Watercourse
- Tree
- Tree with High Bat Roost Potential
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Hurst Meadows Country Park

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Little Park Farm, Hurstpierpoint	PROJECT
Ecological Constraints and Opportunities	TITLE
6467/CON2	DRAWING NO.
A/BG	REV
April 2022	DATE

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