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Ecological Impact Assessment & SANG Statement

Client

Gleeson Land Limited

Project

Land at Shortland Farm

Ash

Date

October 2025

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1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
FPCR were commissioned by Gleeson Land to undertake an Ecological Impact Assessment (EclA) of Land at Shortland Farm, Ash to provide an ecological baseline for the Site and determine its ecological importance. Proposals are for an Outline planning application for residential with up to 200 units with associated access, infrastructure and green-space. A suite of ecological surveys were undertaken to inform this assessment, including a UKHab Survey, a desktop study and a range of protected/notable species surveys.
Ecological Baseline
There are five internationally designated sites of nature conservation importance within 15km of the Site and two nationally designated site within 2km of the Site. Eight Sites of Importance for Nature Conservation fall within 1km of the Sites boundary. The Site was dominated by a horse grazed grassland with a mixture of species-poor and species rich grassland and acid grassland to the north. A stream runs along the southern boundary and a number of hedgerows and tree-lines bound the Site. A large area of ruderal is present in the east and small areas of mixed scrub and tall forbs are present in the Site. Breeding bird surveys have identified that the Site is used by an assemblage of mostly common and widespread, generalist species, considered to be of no more than Local importance. Low levels of bat activity were recorded onsite, mostly from common species, with the grasslands, hedgerows and tree-lines all providing suitable foraging and commuting habitat. Trees onsite also provide potential roost features for roosting bats. A low population of slow-worm were recorded onsite with the hedgerow bases, grasslands and scrub providing some suitable reptile habitat.
Residual Effects
The assessment has demonstrated that in the absence of mitigation, proposals would lead to a Significant, Negative effect at National Scale as a result of recreational pressure on the Thames Basin Heath SPA & Thursley Ash, Pirbright & Chobham SAC . A combination of intrinsic mitigation, targeted mitigation, compensation and ecological enhancement detailed within this EclA have demonstrated that proposals will lead to negligible effects on all IEFs, apart from bats and reptiles for which a Not Significant Positive effects are considered likely.

2.0 INTRODUCTION

- 2.1 The following Ecological Impact Assessment (EclA) has been prepared by FPCR Environment and Design Ltd. (FPCR) on behalf of Gleeson Land for the development proposals of Land at Shortlands Farm, Ash (central OS Grid Ref: SU 90642 51034) herein referred to as 'the Site'.
- 2.2 To inform this assessment, a suite of ecological surveys have been undertaken. The following reports are appended to this report and provide details of the survey methodologies employed and the survey results:
- Bat Survey Report (FPCR, 2025)
 - Breeding Bird Survey Report (FPCR, 2025)
 - Reptile Survey Report (FPCR, 2025)
 - Biodiversity Net Gain Report (FPCR, 2025)
- 2.3 The aim of the EclA is to:
- provide a summary of the methods and results of ecological survey work to establish an ecological baseline;
 - identify and describe all potentially significant ecological effects associated with the proposed development on important ecological features;
 - set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
 - provide an assessment of the significance of residual effects;
 - identify appropriate enhancement measures and consider biodiversity net gain; and
 - set out the requirements for post-construction monitoring.

Site Location and Context

- 2.4 The application Site is approximately 10.18 ha and is located West of Guildford in Surrey (Central OS Grid Ref: SU 90646 51040). The Site is predominantly comprised of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site which includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 2.5 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Development Proposals

- 2.6 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:

- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
- green and blue infrastructure; and
- associated service and utility structures.

3.0 LEGISLATION

3.1 Details on relevant national and local policy and legislation for ecology in relation to the development site are provided in Appendix A. The policies and legislation most relevant are:

- The Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended) in relation to the European Protected Species (EPS) great crested newt *Triturus cristatus* (GCN), bats (all species) and hazel dormouse *Muscardinus avellanarius*; and European protected sites i.e. Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) collectively known as "National Site Network site", and EU Internationally protected "Ramsar Sites". Annex II bat species of particular relevance in relation to SACs designated for bats.
- The Wildlife and Countryside Act 1981 (WCA) (as amended) in relation to all wild birds (including Schedule 1 species), other animals (notably Schedule 5 species), flora (those listed in Schedules 8 and 9) and Sites of Special Scientific Interest (SSSI);
- The Environment Act 2021 which covers a range of environmental protections and enhancements including requiring developments to demonstrate a mandatory biodiversity net gain;
- Protection of Badgers Act (PBA) 1992 which protects badgers from killing or harm;
- Natural Environmental and Rural Communities (NERC) Act 2006 in relation to various priority species and habitats;
- Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995;
- National Planning Policy Framework (NPPF) 2024 which sets out the Governments planning policy for England including measure to conserve and enhance the natural environment by protecting and enhancing value landscapes, recognising the value and wider benefits of natural capital and minimising impacts/providing net gains for biodiversity;
- Local Planning Policy contained within the Guildford Local Plan: Development Management (Policies P6, P7) and Guildford Local Plan: Strategy and Sites (Policy P5). The Thames Basin Heaths SPA Avoidance Stagey Supplementary Planning Document has also been reviewed.
- Local Nature Reserves (LNR) as designated most recently by the NERC Act 2006;
- Non-statutory protected local sites including County Wildlife Sites (CWS), Sites of Importance for Nature Conservation (SINC), Local Wildlife Sites (LWS) and Ancient Woodland Inventory (AWI) sites;
- Local Biodiversity Action Plans (LBAP); and
- Birds of Conservation Concern (BoCC).

4.0 METHODOLOGY

Desktop Study

- 4.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:
- Surrey Biodiversity Information Centre; and
 - Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.defra.gov.uk)
- 4.2 Further inspection of colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.
- 4.3 The search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:
- 15km around the application area for sites of National and International Importance (e.g. Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites).
 - 2km around the application area for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSIs) and species records (e.g. protected, Local Biodiversity Action Plan (LBAP) or notable species).
 - 1km around the application site for sites of County Importance (e.g. Biological Heritage Sites Local Wildlife Sites (LWS)).
- 4.4 When handling data, species data were filtered to include records from the previous ten years only to keep the data relevant to the date of this assessment.

UKHab Survey

- 4.5 A UKHab and walkover survey was conducted on 4th June 2025 following the extended UKHab Survey methodology. This involved a systematic walk over of the Site to classify the broad habitat types and identify any Habitats of Principal Importance (HPI) for the conservation of biodiversity as listed within Section 41 (S41) of the NERC Act 2006. Habitats were broadly mapped in the field using a detailed topography map produced for the scheme using pens or pencils as appropriate. Habitat condition assessment surveys were also completed in accordance with the Statutory Biodiversity Metric Habitat Condition Assessments.
- 4.6 Where feasible, target notes and species lists were compiled for individual areas and assessments of abundance were made using the DAFOR scale. Vascular plant nomenclature follows Stace¹. Whilst the species lists collected should not be regarded as exhaustive, sufficient information was gained during the survey to enable classification and assessment of broad habitat types and identify features likely to be of interest.

Invasive Plants, Notifiable Weed Species and Other Notable Flora

¹ Stace, C.A. 2010. New Flora of the British Isles (3rd Ed.). Cambridge: Cambridge University Press.

- 4.7 Consideration has been given as to the presence of invasive species listed on Schedule 9 of the WCA 1981 and the presence of any notable weeds including those covered under the Weed Act 1959² (where the population is significant enough to be considered injurious).

Faunal Surveys

- 4.8 Following the initial assessment of the Site for protected/notable species potential, a series of further surveys were required and have been completed. Detailed survey methods for these surveys are contained within the specific species reports in the Appendix.

Impact Assessment

- 4.9 The assessment of significant ecological effects has been undertaken in accordance with CIEEM EclA guidelines³. In summary, the process involves:
- **Establish Baseline** – this is based on desk study and field surveys which describes the existing and potential Important Ecological Features (IEFs) within the zones of influence specified.
 - **Determine the Scale of Importance of Ecological Features** – importance is determined using geographical frames of reference: Local, Country, Regional, National and International. This assessment is based on a variety of factors, including statutory protection, statutory designation, conservation status, abundance and rarity.
 - **Assess Significant Ecological Effects** –based on the importance of the ecological feature, magnitude of the effect and sensitivity of the features considered. This is description-based rather than applying a matrix which considers construction and operation effects only where relevant. The assessment assumes the proposed layout, intrinsic mitigation and routine ecological mitigation normally conditioned, and these are outlined clearly.
 - **Mitigation** – This will be based on the mitigation hierarchy – avoidance, mitigation, compensation and enhancement. Any further mitigation measures required will be outlined to ensure residual effects are lowered to a level considered acceptable. Enhancements will seek biodiversity net gain in line with the NPPF and Local Plan Policy DP19: Biodiversity, Geological Conservation and Green Infrastructure. Monitoring will be considered where applicable.
 - **Future Baseline and Residual Effects** – final conclusionary statements for the short, medium and long term.

² Act of Parliament (1959). The Weed Act 1959. London: HMSO.

³ CIEEM 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (version 1.1). Chartered Institute of Ecology and Environmental Management, Winchester.

5.0 ECOLOGICAL BASELINE

Desk Study

Designated Sites

International Statutory Designated Sites

- 5.1 Five sites of international importance lie within 15km of the Site boundary. These are shown in *Table 1* and *Figure 1*.

Table 1. International Statutory Designated Sites within 15km

Designated Site	Approximate distance from Site	Reason for designation
Thames Basin Heaths SPA	335m north	Qualifies under Article 4.1 as it supports nationally important numbers of breeding nightjar, woodlark and Dartford warbler.
Thursley Ash, Pirbright & Chobham SAC	335m north	This site supports the qualifying Annex I habitats of depression on peat substrates of the <i>Rhynchosporion</i> , European dry heaths and North Atlantic wet heaths with <i>Erica tetralix</i> . The site overlaps with the Thames Basin Heaths SPA.
Thursley, Hankley & Frensham Commons SPA	7.3km south	Qualifies under Article 4.1 as it supports nationally important numbers of breeding nightjar, woodlark and Dartford warbler.
Thursley & Ockley Bogs RAMSAR	8.4km south	Supports a community of rare wetland invertebrate species and notable numbers of breeding dragonflies and is one of few sites in Britain with all six native reptile species. The site also supports nationally important numbers of breeding nightjar and woodlark.
Wealden Heath II SPA	12.2km south	Qualifies under Article 4.1 as it supports nationally important numbers of breeding nightjar, woodlark and Dartford warbler.

National Statutory Designated Sites

- 5.2 There is one nationally designated site within 2km of the development site, Basingstoke Canal SSSI, located approximately 1.2km north-west of the Site. This SSSI is designated for its nationally important aquatic plant and invertebrates.
- 5.3 Lakeside Park local Nature Reserve is also located approximately 1.3km north-west of the Site.

Non-Statutory Designated Sites

- 5.4 Data received from SBIC identified eight non-statutory sites within 1km of the application boundary, as shown in *Figure 1*. Seven of these sites are different parts of Wanborough and Normandy Woods SNCI which is an area of ancient semi-natural woodlands. The majority of the woodland stands within the site comprise of base-enriched ash, field maple and hazel coppice. Over 300 vascular plants have been recorded within the SNCI, including locally rare and scarce species. It is also an important site for mammals, birds, bryophytes and invertebrates.

- 5.5 The remaining SNCI is Wyke School Wood SNCI which is an important for the relict wet heath and surrounding oak-birch woodland which it supports.

Protected/Notable Species

- 5.6 Several records of protected, notable, or local BAP species are present within 1km of the Site (or within 2km for bat species). These are detailed in *Table 2* below and *Figure 1*. Only records from the last 20 years are included.

Table 2: Protected and Notable Species Records

Species	Dates	Legal Protections	Approximate Location Relative to Site
Bats			
Bat Species	2009	HAB4, WCA, S41	One record, located 405m North-east
Brown long-eared bat <i>Plecotus auritus</i>	2015 - 2018	WCA5, HRegs, NERC41	Nine records, nearest located 1.2km West
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	2015 - 2020	WCA5, HRegs	Five records, nearest located 1.5km South-west
Daubenton's Bat <i>Myotis daubentonii</i>	2020	WCA5, HRegs	One record, located 1.6km South-east
<i>Myotis</i> species	2010	HAB4, WCA	Three records, all located 1.6km West
Nathusius's Pipistrelle <i>Pipistrellus nathusii</i>	2020	WCA5, HRegs	One record, located 1.6km South-east
Noctule <i>Nyctalus noctula</i>	2020	WCA5, HRegs, NERC41	Three records, nearest located 1.6km South-east
Serotine <i>Eptesicus serotinus</i>	2016	WCA5, HRegs, NERC41	Two records, nearest located 1.1km East
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	2020	WCA5, HRegs, NERC41	Four records, nearest located 1.6km South-east
Birds			
Cuckoo <i>Cuculus canorus</i>	2015 - 2016	NERC S41	Two records, nearest located 1km North
Skylark <i>Alauda arvensis</i>	2015 - 2016	NERC S41	Two records, nearest located 120m South-East
Tree Pipit <i>Anthus trivialis</i>	2015	NERC S41	One record, located 875m North
Woodlark <i>Lullula arborea</i>	2016	NERC S41	Three records, nearest located 980m North
Reptiles and Amphibians			
Adder <i>Vipera berus</i>	2016 - 2017	WCA5, NERC41	Two records, located 560m North
Common Toad <i>Bufo bufo</i>	2015 - 2017	NERC41	Twenty records, nearest located 700m South-west
Great Crested Newt <i>Triturus cristatus</i>	2015 - 2018	WCA5, HRegs, NERC41	Eight records, nearest located 800m South-west
Slow-worm <i>Anguis fragilis</i>	2015 - 2020	WCA5, NERC41	Two records, nearest located 730m West
Invertebrates			
Brown Hairstreak <i>Thecla betulae</i>	2017 - 2020	NERC41	Fourteen records, nearest located 875m South

Species	Dates	Legal Protections	Approximate Location Relative to Site
Key: NERC41 – Section 41 of the Natural Environment and Rural Communities Act 2006; HabsDirA2 – Habitat Directive Annex II species, HRegs – The Conservation of Habitats and Species Regulations 2017; WCA1/WCA5/WCA9 – species listed on Schedule 1, Schedule 5, and Schedule 9 of the Wildlife and Countryside Act 1981 respectively			

UKHab Survey

- 5.7 The locations of the habitats described below are illustrated in *Figure 2: UKHab Plan*.

Other Lowland Acid Grassland

- 5.8 The two most northern field compartments (G1 and G2) onsite comprised of mostly other lowland acid grassland. These field compartments were grazed by horses, resulting in a uniform, short sward height and over 5% cover of bare ground.
- 5.9 The sward comprised of common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus*, squirrel-tail fescue *Vulpia bromoides* and occasional perennial rye grass *Lolium perenne* with forbs including sheep sorrel *Rumex acetosella*, common century *centaurium erythraea* and cats-ear *Hypochaeris radicata*.
- 5.10 This grassland does not meet the criteria for the priority habitat lowland dry acid grassland⁴ due to the frequency of perennial rye grass, limited number of species per m² and all indicator species being either rare or occasional.

Other Neutral Grassland

- 5.11 The Site contained two areas identified as other neutral grassland, both located to the south of the stables (G7 and G8).
- 5.12 The grasslands were all grazed by horses. Both of the grasslands were assessed as being in Poor condition, due to not supporting at least 10 species per m², and the grasslands had over 5% cover of bare ground (due to activity from horses) and did not represent a good example of their habitat types.
- 5.13 The grasslands had very similar compositions with the sward comprising locally abundant perennial rye grass and rough meadow grass *Poa pratensis*, occasional Yorkshire fog, cock's foot *Dactylis glomerata* and red fescue *Festuca rubra* and locally frequent squirrel-tail fescue *Vulpia bromoides*. Forbs included autumn hawkbit *Scorzonoides autumnalis*, lesser trefoil *Trifolium dubium*, meadow buttercup *Ranunculus acris*, buck's-horn plantain *Plantago coronopus* and sub-optimal species such as broad-leaved dock *Rumex obtusifolius* and creeping thistle *Cirsium arvense*.

Modified Grassland

- 5.14 The majority of the horse fields to the south of the buildings and stables were identified as modified grassland, along with the southern portion of the northern field compartments.
- 5.15 Grassland G4 and G6 was assessed as being in Moderate condition with at least 6-8 plant species per m², absence of invasive non-native species and limited bracken *Pteridium aquilinum* and scrub cover. G3 and G5 was assessed as being in Poor condition due to having less than 6 plant species per m² and/or lacking a varied sward height.

⁴ UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>) [Date Accessed: 3.10.25]

5.16 G3, G4 and G5 had a sward comprising perennial rye grass, Yorkshire fog, soft-brome *Bromus hordeaceus*, rough meadow grass, cock's-foot and false oat grass *Arrhenatherum elatius*. Fobs included common vetch *Vicia sativa*, perennial sow-thistle *Sonchus arvensis*, common fleabane *Pulicaria dysenterica*, red clover *Trifolium pratense*, ribwort plantain *Plantago lanceolata* and creeping cinquefoil *Potentilla reptans*.

5.17 G6 was more species-rich with a sward of perennial rye grass, Yorkshire fog, meadow foxtail *Alopecurus pratensis*, common bent and rat's-tailed fescue *Vulpia myuros*. Forbs were quite limited with species including yarrow *Achillea millefolium*, ribwort plantain, mouse-ear hawkweed *Pilosella officinarum* and buck's-horn plantain.

Bramble Scrub

5.18 Some areas of bramble scrub were present scattered throughout the Site. Part of the southern boundary consisted of a block of bramble scrub.

Tall Forbs

5.19 There are two areas of tall forbs onsite in the form of stands of bracken. Both areas of bracken are located along the northern boundary of the Site and also contain some scattered, individual trees. The tall forbs were considered to be in Poor condition due to being dominated by bracken.

Ephemeral / Ruderal

5.20 The field compartment to the north-east of the stables and yard was classified as ephemeral/ruderal vegetation due to supporting a large variety of forbs growing on previously disturbed and bare ground. Species included abundant broad-leaved dock, locally frequent false-oat grass and scented mayweed *Matricaria chamomilla* and occasional common poppy *Papaver rhoeas*, yarrow, biting stonecrop *Sedum acre*, nipplewort *Lapsana communis* and creeping cinquefoil.

Individual Trees

5.21 There were 31 individual trees onsite. 21 of these trees were Good condition (mostly Pedunculate oak *Quercus robur*), three trees were Poor condition elder and sycamore *Acer pseudoplatanus*) and the remaining trees were Moderate condition Pedunculate oak, sycamore and Scott's pine *Pinus sylvestris*. Two trees were classified as 'very large', 13 as 'large', 9 as 'medium' and 7 as 'small'.

5.22 The majority of trees were located along the northern boundary of the Site, often associated with the areas of bracken. Other individual trees were located within a horse paddock next to the PRow and within the yard.

Hedgerows

5.23 Eleven hedgerows were recorded across the Site, mostly along the Site boundaries. The hedgerows were assessed as being either in Poor or Moderate condition. Four hedgerows were identified as native hedgerows, whilst six hedgerows were ornamental hedgerows, one hedgerow was identified as species-rich and another a native hedgerow with trees.

5.24 The native hedgerows varied in composition with species including blackthorn *Prunus spinosa*, Pedunculate oak, elder *Sambucus nigra*, elm *Ulmus procera*, hawthorn *Crataegus monogyna*, bramble and hazel *Corylus avellana*. Ground flora included common nettle *Urtica dioica*, black horehound *Ballota nigra*, white bryony *Bryonia alba*, honeysuckle *Lonicera periclymenum* and

bittersweet *Solanum dulcamara*. The non-native, ornamental hedgerows were all dominated by Leylandii *Cupressus x leylandii*.

- 5.25 Five of the hedgerows were Habitats of Principal Importance due to consisting of at least 80% native species. None of the hedgerows are considered important under the hedgerow regulations.

Line of Trees

- 5.26 There are three lines of trees within the Site. Two of the lines of trees run parallel to the public right of way running east-west through the Site, whilst the third line of trees makes up part of the eastern Site boundary. All lines of trees were in Moderate condition, consisting of mostly native species and supporting ecologically niches, but showing some adverse impacts from human activities.
- 5.27 Line of trees L1 and L2 were dominated by Pedunculate oak with abundant bramble, frequent hawthorn and occasional holly. The ground flora included rough meadow-grass, dandelion *Taraxacum officinale*, cock's-foot and great willowherb *Chamaenerion angustifolium*.
- 5.28 Line of trees L3 consisted of frequent Pedunculate oak and hawthorn with occasional holly and supported a similar ground flora.

Stream

- 5.29 There was one stream within the Site, running along the southern Site boundary. At the time of survey it was dry and was assessed as being in Poor condition. Bank side vegetation had colonised the dry stream-bed with species including common figwort *Scrophularia nodosa*, celery-leaved buttercup *Ranunculus sceleratus*, hemlock water-dropwort *Oenanthe crocata*, cleavers *Galium aparine*, Yorkshire fog and remote sedge *Carex remota*. The stream ran alongside hedgerow H6.

Protected and Notable Species

- 5.30 Full details of the further surveys are provided in the appended reports, however *Table 3* provides a summary of the key survey results.

Table 3: Protected/Notable Species Surveys Summary

Species/Group	Site Suitability and Survey Results
Bats	Roosting – One tree and a stable block due to be impacted by the development onsite were identified as having the potential to support roosting bats. Further surveys in the form of aerial assessments and / or nocturnal emergence surveys were undertaken and no bats were found to be roosting within the tree or building. The tree (T1) was found to have the potential to support a bat maternity roost (PRF-M). The Site provides some roosting habitat for bats in the form of a variety of mature trees and the stable block and is considered to be of no more than Site importance for roosting bats.

Species/Group	Site Suitability and Survey Results
	Commuting & Foraging Habitats – The Site provides foraging and commuting habitat in the form of hedgerows, lines of trees and other neutral grassland habitats. Greatest levels of activity were recorded along tree line L2, although this activity was significant in frequency or species. Site has some limited connectivity to habitat in the wider area due to the linear features onsite. A range of common and wide-spread bat species were recorded during the Night-time Bat Walkovers and on the static detectors, with over 77% of all registrations on the statics from common pipistrelle. Low levels of activity were generally recorded. Barbastelle, an Annex II species, were recorded in low numbers on the August statics, with an average of 10 to 30 registrations per static occasion and consisting of less than 1% of total registrations. The Site is not considered to be of importance for Barbastelle due to the very low-levels of activity, which is most likely from commuting individuals. The Site provides some foraging and commuting habitat for an assemblage of common and widespread bat species and is considered to be of no more than Local importance.
Badgers	A badger survey was conducted onsite as part of the initial walkover onsite, with only two latrines recorded, with no setts present. The Site may provide some foraging habitat for badgers but is considered to be of no more than Site importance due to the limited evidence found onsite.
Birds	A total of 28 bird species were recorded across the breeding bird surveys. The hedgerow, scrub and trees onsite provided foraging and breeding opportunities for a variety of urban-edge and generalist species. Notable species recorded included; linnet, greenfinch, house sparrow and song thrush. The grassland habitats offered limited opportunities with this habitat mostly being utilised by species such as magpie, jackdaw, Egyptian geese and occasional starling flocks for foraging only. No qualifying species of the Thames Basin Heath SPA were recorded during the breeding bird surveys. The Site is considered to be of no more than Local importance for birds.
Great Crested Newts	Two ponds lie within 250m of the Site boundary (figure 3), however they are separate from the Site by the A323, which would act as a barrier to dispersal, with good terrestrial habitat surrounding the ponds reducing the likelihood of newts dispersing far. There is limited habitat for GCN onsite, with the horse grazed grassland unsuitable and the hedgerow bases and small areas of scrub providing some sub-optimal habitat. The closest record of GCN returned from SBIC is over 750m from the Site, much further than 500m the species is known to travel when dispersing. It is therefore unlikely that the Site supports a population of GCN.
Hazel Dormouse	There is no woodland onsite and the hedgerows and lines of trees that are present have very poor connectivity to woodland and other suitable habitat in the surrounding landscape. No records of dormice in the local area were returned from SBIC. It is assumed that dormice are absent from Site due to the limited habitat, connectivity and absence of records. Hazel dormice are not considered a constraint to proposals.
Reptiles	The field margins and hedgerow bases onsite provide some suitable commuting, basking and foraging habitat for reptiles. The species-poor grassland is considered to be a sub-optimal habitat for reptiles due to the regular grazing by horses resulting in a lack of an under thatch and a very short sward height. A maximum count of two adult slow worm was recorded onsite, suggesting the Site supports a low population of slow worm. The Site is considered to be of no more than Site importance for reptiles.

Species/Group	Site Suitability and Survey Results
Riparian Mammals	There is a stream running along the southern Site boundary, however it was dry from May until October and so did not provide suitable habitat for riparian mammals. It is considered that otter and water vole are very likely absent from the Site. Riparian mammals are therefore not considered a constraint to proposals.

Summary of Important Ecological Features

- 5.31 The suite of surveys conducted demonstrated that the proposals have the potential to impact a range of important ecological features. These are summarised in *Table 4* and assigned a geographic context based on survey results, relevant legislation and policy.

Table 4: Important Ecological Features On-Site and within Local Area

Important Ecological Feature	Relevant Legislation / Policy	Geographic Scale	Rationale
Thames Basin Heaths SPA	NPPF	International	This SPA is located within the search area for internationally designated sites.
Thursley Ash, Pirbright & Chobham SAC	NPPF	International	This SAC is located within the search area for internationally designated sites.
Thursley, Hankley & Frensham Commons SPA	NPPF	International	This SPA is located within the search area for internationally designated sites.
Thursley & Ockley Bogs RAMSAR	NPPF	International	This Ramsar is located within the search area for internationally designated sites.
Wealden Heath SPA	NPPF	International	This SPA is located within the search area for internationally designated sites.
Basingstoke Canal SSSI	NPPF	National	This SSSI is located within the 2km search area for nationally designated sites.
Wanborough and Normandy Woods SNCI	NPPF	Local	This SNCI is located within the 1km search area for local designated sites.
Wyke School Wood SNCI	NPPF	Local	This SNCI is located within the 1km search area for local designated sites.

Important Ecological Feature	Relevant Legislation / Policy	Geographic Scale	Rationale
Hedgerows	NPPF	Local	Five of the hedgerows onsite are dominated by native species and are therefore habitats of principal importance.
Other Habitats	NPPF	Local	There are a number of mature trees onsite along with other neutral and acid grassland which have the potential to provide good habitat for wildlife.
Bats	CHSR, WCA Sched 5, NERC S41	Local	Low levels of activity from a variety of common bat species were recorded onsite. A small number of trees and the stables also have potential roost features.
Birds	WCA, NERC S41, Local Plan	Local	The Site provides suitable habitats for an assemblage of common and widespread generalist/urban edge species.
Reptiles	WCA, NERC S41, Local Plan	Local	A low population of slow worm is present onsite.

Where NPPF = National Planning Policy Framework 2019; NERC S.41 = Natural Environment and Rural Communities Act 2006 Section 41; CHSR = Conservation of Habitats and Species Regulations 2017; WCA = Wildlife and Countryside Act 1981.

6.0 IMPACT ASSESSMENT

Development Proposals and Intrinsic Mitigation

- 6.1 Proposals are for an Outline Planning Application for a residential development of up to 200 homes, along with the provision of new infrastructure including access, road, path links, and open spaces.
- 6.2 The proposals sought ecological input during an early phase of the design process to ensure that the impacts on ecological receptors will be kept to a minimum. BNG calculations have been completed (see Appendix H) from an early stage and the results of faunal surveys have been used to minimise negative impacts. The proposed scheme includes the following intrinsic ecological avoidance, mitigation and enhancement measures:
- Approximately 5ha of green infrastructure is proposed. This will provide opportunities for habitat creation, including other neutral grassland, SuDS and mixed scrub.
 - Where possible, amenity grasslands will be created using a flowering lawn seed mix to boost botanical diversity and to allow these areas to target moderate condition.
 - The other neutral grassland to the south-west of the development footprint will be managed to create species-rich grasslands with a diverse range of sward heights. This will provide habitat for invertebrates, increasing foraging resources for bats and some bird species.
 - A number of attenuation basins will also be included, providing further wetland habitat within the Site. While these will serve a drainage feature, they will be designed to accommodate a diverse range of planting in order to target moderate condition, this will support additional invertebrate population that require water for their breeding cycle, thus promoting more ecological value and prey items.
 - New hedgerow planting around residences throughout the Site are to be created, which will also promote linkages to the wider area.
 - The retained hedgerows, tree-lines and trees will be protected from damage and to allow sufficient room for management in line with RPAs identified in the Arboricultural Assessment.
 - Proposals include additional tree planting within the development area, with them included along streets and within GI areas around the Site peripheries.

Biodiversity Net Gain and Habitat Enhancements

- 6.3 The development framework has been assessed using the statutory biodiversity metric. Details of this assessment are provided in Appendix H. Based on proposing habitats that are readily achievable and common place in residential development of this type, the BNG calculations will result in at least a 20% net gain in watercourse and hedgerow units onsite and will require offsite units to achieve a 20% gain in habitat units. This will be achieved through the creation of a range of new habitats including species-poor grasslands, species rich grassland, new hedgerows, SuDs features, and the retention of habitat including woodlands and hedgerows, as well as the purchase of offsite habitat units.

Core Documents

6.4 The following lists the core documents that can secure the mitigation and enhancement measures described in this report. They can be secured through appropriately worded pre-commencement planning conditions, attached to the application to be submitted and discharged prior to the commencement of works.

- **Construction and Environmental Management Plan for Ecology (CEMP: Ecology):** This pre-commencement document contains the necessary Method Statements to ensure protected species are not unlawfully harmed during ground clearance, earthworks and during construction. The document will include an Ecological Constraints and Mitigation Plan drawing that clearly shows the location of constraints and details mitigation required, where necessary.
- **Biodiversity Gain Plan:** In accordance with the requirements of the Environment Act 2021, a biodiversity gain plan will be provided following receipt of full planning permission in order to discharge the mandatory BNG condition that will be applied to the scheme. This will detail how the proposals will deliver a 10% net gain in biodiversity through onsite measures and, where required, offsite compensation.
- **Habitat Management and Monitoring Plan (HMMP):** As part of the Biodiversity Gain Plan, a HMMP will be delivered that will detail ecological enhancement and management information as appropriate to demonstrate how the onsite BNG units will be delivered.

Assessment of Likely Significant Effects on Important Ecological Features

6.5 The status of the important ecological features (IEFs) identified on site have been reviewed against the proposals and intrinsic mitigation to determine whether there are any impact pathways and whether any of these will lead to a likely significant effect. These are assessed in *Table 5*. The requirement for additional mitigation measures above the intrinsic mitigation has been considered for each of the IEFs where they can reduce the scale of negative effects or encourage a positive effect.

Table 5: Assessment of Effects on Important Ecological Features

IEF: Thames Basin Heath SPA & Thursley Ash, Pirbright & Chobham SAC	
Assessment of Impacts	These designated sites are only 335m north of the proposed development Site. The construction phase of development could have a direct impact on the SPA and SAC through noise and dust deposition. Post-construction, there is also the threat of increased recreational pressure on the SPA leading to disturbance of the SPA qualifying features (nightjar, woodlark and Dartford warbler), especially during the breeding season. The development may also lead to increased cat predation on the qualifying features of the SPA. The A234 lies within 200m of the SPA and SAC in some areas and the A3 lies within 200m of the SAC. The development is expected to lead to an increase in 881 AADT on this part of the network. This does not exceed the daily increase in traffic flows of 1,000 AADT, so it is considered that the development will not have an effect on the SPA and SAC due to air quality.
Predicted Effect	Significant, Negative effect at National Scale

Mitigation	There is a 400m 'exclusion zone' surrounding the SPA which means that any development resulting in a net increase in residential units within this zone is not allowed. The masterplan has taken this into consideration and the area that falls within this 400m zone is to be left as open space. This will help reduce the impact of cat predation and increased recreational pressure on the SPA. This exclusion zone will also result in the closest construction activities to the SPA occurring over 400m from the SPA, at which distance noise and dust should not be an impact. To mitigate against the possible increase in recreational pressure, a financial contribution will need to be made to the Suitable Access Management and Monitoring (SAMM) tariff and a Suitable Area of Natural Greenspace (SANG) will need to be provided. More detail on this can be found within Appendix I. These mitigation measures will also reduce the impacts on the SAC, even though they are created for the Thames Basin Heath SPA specifically.
Residual Effect	Not Significant, Negligible Effect as at an International Scale
IEF: Thursley, Hankley & Frensham Commons SPA	
Assessment of Impacts	This SPA lies approximately 7.3km from the Site boundary. Due to this intervening distance, it will not be impacted during the construction phase from dust deposition and/or noise. The A287, A286 and A3 all lie within 200m of the SPA. The development is expected to lead to an increase in 881 AADT on this part of the network. This does not exceed the daily increase in traffic flows of 1,000 AADT, so it is considered that the development will not have an effect on the SPA due to air quality. The development has the potential to increase recreational pressure on the SPA, with research showing 85% of dog walkers and 70% of all visitors to the SPA derived from within 9km of the SPA. This has the potential to lead to habitat damage and/or disturbance of the Annex I species breeding onsite. However, the Thames Basin Heaths SPA lies 335m from the Site, and is of a similar habitat to Thursley, Hankley & Frensham Commons SPA, and so is much more likely to be frequented by dog walkers from the development, instead of them travelling over 7km. Ash Green Meadows SANG is also located a 6 minute drive from the proposed development, which provides further walking routes.
Predicted Effect	Not Significant, Negative effect at National/International Scale (Recreation only)
Mitigation	The area of the Site to the north of the PRoW is proposed as green-space, with other areas of green infrastructure proposed through the centre of the Site and around the Site boundaries. This open space will provide some areas for residents to walk their dogs.
Residual Effect	Not Significant, Negligible Effect as at an International Scale
IEF: Thursley & Ockley Bogs RAMSAR	
Assessment of Impacts	This Ramsar lies approximately 8.4km from the Site boundary. Due to this intervening distance, it will not be impacted during the construction phase from dust deposition and/or noise. The development has the potential to increase recreational pressure on the Ramsar, which could lead to increased disturbance of the qualifying Annex I breeding birds onsite. As with Thursley, Hankley & Frensham Commons SPA, the Thames Basin Heaths SPA lies 335m from the Site, and is of a similar habitat to the Ramsar, and so is much more likely to be frequented by dog walkers from the development, instead of them travelling over 8km. Ash Green Meadows SANG is also located a 6 minute drive from the proposed development, which provides further walking routes.
Predicted Effect	Not Significant, Negative effect at National/International Scale (Recreation only)
Mitigation	The area of the Site to the north of the PRoW is proposed as green-space, with other areas of green infrastructure proposed through the centre of the Site and around the Site boundaries. This open space will provide some areas for residents to walk their dogs.

Residual Effect	Not Significant, Negligible Effect as at an International Scale
IEF: Wealden Heath Phase II SPA	
Assessment of Impacts	This SPA lies 12.2km from the Site and so will not be impacted during the construction phase from dust deposition and/or noise. Visitor surveys undertaken by UE Associates indicate that the recreational zone of influence for the Wealden Heaths Phase II SPA is relatively restricted, with the mean distance travelled for all access points monitored being less than 7km. It is therefore unlikely that the development will result in any significant increase in recreational pressure.
Predicted Effect	Not Significant, Negligible effect at National/International Scale
IEF: Basingstoke Canal SSSI	
Assessment of Impacts	Basingstoke Canal SSSI is located approximately 1.2km from the Site and so is therefore unlikely to be impacted from dust deposition or noise from the construction phase of the development. Due to the distance of the SSSI from the Site, it is unlikely that many residents will walk to the canal from the development. However, residents may drive to the SSSI to walk / walk their dogs. The SSSI is mostly designated for its wetland habitats and aquatic plants and invertebrates. Therefore, even if recreational pressure increases along the canal towpath, this is unlikely to impact the important ecological features directly due to the restricted access.
Predicted Effect	Not Significant, Negligible effect at National
IEF: Wanborough and Normandy Woods SNCI	
Assessment of Impacts	The closest component of this SNCI lies approximately 350m east of the Site. Due to this proximity to the proposed development, there is the potential for noise and dust deposition during construction to impact some areas of the SNCI. There is very limited public access to this SNCI, with only a small number of PROW. The closest PROW that enters part of the SNCI is approximately a 500m walk from the proposed development. It has been shown that people are unlikely to walk further than 400m to a walk location (Footprint Ecology), and so it is unlikely that the development will lead to any significant increase in recreational pressure on the SNCI.
Predicted Effect	Significant, Negative effect at Local Scale (Construction only)
Mitigation	A Construction and Environmental Management Plan (CEMP) will be provided that will include mitigation and working methods to reduce impacts on the SNCI from construction activities.
Residual Effect	Not Significant, Negligible Effect as at Local Scale
IEF: Wyke School Wood SNCI	
Assessment of Impacts	This SNCI lies approximately 770m east of the Site. Due to the intervening distance between the proposed development and the SNCI, it is unlikely that noise and dust deposition during construction will impact the SNCI. The SNCI does not have any public access and so increased recreational pressure is not an issue.
Predicted Effect	Not Significant, Negligible Effect as at Local Scale
IEF: Hedgerows	
Assessment of Impacts	The proposals retain the majority of hedgerows, with minor losses to create the main access route to the Site and the loss of the non-native Leylandii hedgerows associated with the buildings. Intrinsic mitigation within the proposals includes new hedgerow planting and enhancement of existing hedgerows, which will mitigate for these minor losses.
Predicted Effect	Not Significant, Negligible Effect at a Site Scale
IEF: Other Habitats (Other neutral grassland, Acid grassland, Stream & Mature trees)	

Assessment of Impacts	The other neutral grassland parcels in the south of the Site will be lost, whilst the acid grassland to the north of the PRoW will be retained. The creation of new other neutral grassland, will mitigate for the losses. The majority of mature trees onsite will be retained and buffered as most are restricted to the Site boundaries. Some trees within the centre of the Site may be lost. Any losses of trees will be intrinsically mitigated for through the planting of a large number of new, individual trees throughout the Site. In the current proposals, the stream along the southern boundary of the Site will be buffered from any built development.
Predicted Effect	Not Significant, Negligible Effect at a Site Scale
IEF: Bats	
Assessment of Impacts	The Site provides foraging and commuting habitats for bats in the form of hedgerows, tree-lines and other neutral grassland habitats. The Site supports low levels of bat activity from a variety of common and widespread species. The majority of hedgerows and tree-lines are to be retained which will retain connectivity within the Site and the surrounding areas. All other neutral grassland will be lost, with the acid grassland areas in the north of the Site retained and enhanced. The proposals will increase light levels onsite through the introduction of building and street lighting, which has the potential to impact the navigational and foraging habitats present and any roost features in T1.
Predicted Effect	Not Significant, Negative effect at a Site Scale
Mitigation	Measures to reduce light spill will be detailed in the CEMP and/or the lighting scheme produced for the scheme. This will include measures such as using directional, low-level lighting and the maintenance of dark corridors along retained and newly created habitats. The northern area of the Site is to be retained as greenspace which will continue to provide foraging opportunities for bats in the form of good quality habitats such as scrub and acid grassland.
Enhancement	Woodcrete bat boxes (Schwegler or similar design) will where possible be installed on new dwellings throughout the Site to provide further roosting opportunities.
Residual Effects	Not Significant, Positive effect at a Site Scale
IEF: Birds	
Assessment of Impacts	The Site supports an assemblage of generalist and urban-edge species, with largely common and widespread species recorded. Most species were restricted to the linear features, with limited usage of the fields. The majority of the linear features onsite are to be retained, therefore retaining the most valuable habitat for the assemblage of birds onsite. The proposals also include the creation of a variety of habitats as part of the intrinsic green infrastructure. These new habitats, and the maturation of gardens, will continue to provide suitable breeding and wintering habitat for the assemblage of birds. Construction activities during breeding bird season could negatively impact nesting birds within habitats on Site. Residential developments also increase the risk of cat predation.
Predicted Effect	Not Significant, Negative effect at a Site Scale
Mitigation	Vegetation removal will be avoided during breeding bird season or will be carried out immediately following a nesting bird check by a suitably qualified ecologist.
Enhancement	A mixture of nest boxes, such as the 1B Schwegler nest box or similar woodcrete design will increase nesting opportunities. Nest boxes specifically designed for urban species such as house sparrow, house martin and starling will also be provided.
Residual Effects	Not Significant, Negligible effect at a Site Scale
IEF: Reptiles	

Assessment of Impacts	The hedgerow bases, associated marginal habitats and the other neutral grasslands provide suitable habitat for a variety of reptile species. Presence/likely absence surveys identified that the Site supports a low population of slow worms. The majority of the other neutral grassland is to be lost, whilst most of the hedgerows will be retained. The proposals include new other neutral grassland, hedgerow creation and the creation of SuDS; all of which will continue to provide good habitat for reptiles. Some reptile species, particularly slow worm, are also able to habituate to some human disturbance and can colonise garden habitats as the mature. The establishment of gardens will therefore provide further opportunities for reptiles. Reptiles are at risk of being killed or injured during earthworks and / or site clearance.
Predicted Effect	Not Significant, Negative effect at a Site Scale
Mitigation	Passive displacement methods will be utilised to ensure that reptiles are not harmed while reducing the suitability of their habitat. Any reptiles found during works will be moved to the area north of the development footprint, within the retained grassland. A detailed reptile trapping and translocation exercise is not considered necessary due to the limited extent of suitable habitats present onsite and passive displacement is therefore considered appropriate mitigation that is proportionate to the scale of habitats to be lost.
Enhancement	It is recommended that log piles and hibernacula are included within the areas of proposed GI, with ideal locations being within the other neutral grassland to the north and near the SuDS basins. These will provide further resting and hibernation opportunities for reptiles.
Residual Effects	Not Significant, Positive effect at a Local Scale

Suitable Area of Natural Greenspace

- 6.6 As stated within Appendix I, a SANG will need to be provided, along with the SAMMS payment, to mitigate for the likely increase in recreational pressure on the Thames Basin Heath SPA. As a SANG will not be provided for onsite, a number of off-site solutions are being considered, with conversations with bespoke SANG owners in progress.

8.0 CONCLUSION

- 8.1 The suite of ecology surveys identified a range of important ecological features on Site and within its zone of influence. The impacts on these were assessed against the proposals for a residential development of Land at Shortlands Farm, Ash.
- 8.2 The assessment has demonstrated that in the absence of mitigation, proposals would lead to, at most, a **Significant, Negative effect at National Scale** as a result of recreational pressure on the Thames Basin Heath SPA & Thursley Ash, Pirbright & Chobham SAC.
- 8.3 Proposals have been landscape and ecology led from an early stage in the process, ensuring that the scheme can be designed to mitigate for negative effects associated with the construction proposals and anticipated habitat losses. Biodiversity net gain calculations were completed early in the design process to ensure that losses of higher distinctiveness habitats could be minimised and that sufficient opportunities for habitat creation and enhancement could be incorporated into the proposals. This has led to the proposals including significant green infrastructure areas being enhanced with ecology as a focus. This will comprise new other neutral grasslands and scrub in addition to the enhancement of retained habitats wherever possible.
- 8.4 Through this combination of intrinsic mitigation, targeted mitigation, compensation and enhancement detailed within this EclA and appendices, have demonstrated that the proposals will lead to at most negligible effects on many IEFs, with **Not Significant Positive effects** likely for reptiles and bats.
- 8.5 The proposals will lead to a Biodiversity net gain of at least 20% for watercourses and hedgerows onsite and, with offsite units, will also achieve at least a 20% gain in habitat units.

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APPENDIX A: RELEVANT LEGISLATION, POLICY AND GUIDANCE**The Conservation of Habitats and Species Regulations (CHSR) (Amendment) (EU Exit) 2019**

- 1.1 The Regulations ensure that the habitat and species protection and standards derived from EU law as per “The Habitat Regulations” 2017 amendment, detailed below, will continue to apply after Brexit.

European Protected Sites

- 1.2 The Habitats Regulations ratifies into UK law the “Habitats Directive” (92/42/EEC) and the “Birds Directive” (79/409/EEC). It places a duty on the Secretary of State to propose a list of sites which are important for species listed in Annex I and II of the Habitats Directive respectively to the European Commission. Once the Commission and EU Member States have agreed that the sites submitted are worthy of designation, they are identified as Sites of Community Importance (SCIs). The EU Member States must then designate these sites as Special Areas of Conservation (SACs) within six years.

- 1.3 The Regulations require the compilation and maintenance of a register of European sites to include SACs as well as Special Protection Areas (SPAs) designated for birds. The SAC and SPAs under the CHSR are referred to as national site networks. Ramsar sites are of international importance and do not form part of the national site networks; but boundaries might overlap SAC and SPA designations.

European Protected Species

- 1.4 The Habitats Regulations includes a list of animals and plant species taken from the Annex IV of the Habitats Directive that have a natural range in Great Britain. These are collectively known as European Protected Species (EPS) and are listed in *Table 1*. The regulations make it an offence to deliberately capture, kill, disturb, take or destroy eggs of, or damage or destroy a breeding or resting place of animals listed in Schedule 2 of the Regulations, and to pick, collect, cut, uproot or destroy wild plants listed in Schedule 5 of the Regulations. They also protect these species alive or dead and parts thereof from various forms of possession and trade.
- 1.5 These actions may be made lawful in certain circumstances through the granting of licences by the appropriate authority (Natural England). Licences must only be granted after the appropriate authority is satisfied that no satisfactory alternatives are available. In most circumstances, licences are only applied for and granted following full planning permission.
- 1.6 In determining whether or not to grant a licence Natural England must apply the requirements of The Conservation of Habitats and Species Regulations 2012 (amendment) and, in particular, the three derogation tests:
- Test 1: A licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.
 - Test 2: The appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.
 - Test 3: The appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

Table 1: The Habitats Regulations Schedule 2 and Schedule 5 species

	Common Name	Scientific Name
Schedule 2 – European Protected Animal Species	Horseshoe bats – all species	<i>Rhinolophidae</i>
	Bats – all species	<i>Vespertilionidae</i>
	Large blue butterfly	<i>Maculinea arion</i>
	Wild cat	<i>Felis silvestris</i>
	Dolphins, porpoises & whales - all species	<i>Cetacea</i>
	Hazel dormouse	<i>Muscardinus avellanarius</i>
	Pool frog	<i>Rana lessonae</i>
	Sand lizard	<i>Lacerta agilis</i>
	Fisher's estuarine moth	<i>Gortyna borelii lunata</i>
	Great crested newt	<i>Triturus cristatus</i>
	Otter	<i>Lutra lutra</i>
	Lesser Whirlpool Ram's-horn snail	<i>Anisus vorticulus</i>
	Smooth snake	<i>Coronella austriaca</i>
	Sturgeon	<i>Acipenser sturio</i>
	Natterjack toad	<i>Bufo calamita</i>
	Marine turtles	<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Lepidochelys kempii</i> <i>Eretmochelys imbricata</i> <i>Dermochelys coriacea</i>
Schedule 5 – European Protected Plant Species	Shore dock	<i>Rumex rupestris</i>
	Killarney fern	<i>Trichomanes speciosum</i>
	Early gentian	<i>Gentianella anglica</i>
	Lady's-slipper	<i>Cypripedium calceolus</i>
	Creeping marshwort	<i>Apium repens</i>
	Slender naiad	<i>Najas flexilis</i>
	Fen orchid	<i>Liparis loeselii</i>
	Floating-leaved water plantain	<i>Luronium natans</i>
	Yellow marsh saxifrage	<i>Saxifraga hirculus</i>

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

- 1.7 The Wildlife and Countryside Act 1981 (WCA) (as amended) is the principal legislation providing protection for wildlife in the UK. It prescribes legislation for wild birds, other animals, wild plants and non-native species. In addition, it provides for the designation of Sites of Special Scientific Interest (SSSI) in England.

Wild birds

- 1.8 The WCA as amended by Schedule 12 of the Countryside and Rights of Way Act 2000 makes it an offence (with exception to species listed in Schedule 2) to intentionally or recklessly:
- kill, injure, or take any wild bird;
 - take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006); or
 - take or destroy an egg of any wild bird.

- 1.9 For birds listed on Schedule 1 of the WCA, protection extends to offences relating to the intentional or reckless disturbance of these birds while at their nests or their dependent young.

Other animals

- 1.10 The WCA (as amended) makes it an offence to (subject to exceptions) intentionally or recklessly kill, injure or take wild animals listed on Schedule 5 of the Act. For some species, the protection extends to interference with places used for shelter or protection, or disturbing animals occupying or obstructing access to such places. These species are regarded as “fully protected” and as well as the EPS species listed above include the mammal species water vole *Arvicola terrestris*, pine marten *Martes martes* and red squirrel *Sciurus vulgaris* as well as selected others from a range of species groups including, fish, butterflies, hemipteran bugs, beetles, crickets, dragonflies, moths, spiders, crustaceans, sea-mats, molluscs, Annelid worms and sea anemones (and allies).
- 1.11 There are seven species on Schedule 5 of the Act that not fully protected but are still protected against killing and injuring these include the common reptile species slow worm *Anguis fragilis*, viviparous lizard *Lacerta vivipara*, grass snake *Natrix natrix* and adder *Vipera berus*.
- 1.12 The Act prohibits certain methods of killing, injuring, or taking wild animals, and numerous species are protected against sale only as well as other variations for example Atlantic stream (white-clawed) crayfish *Austropotamobius pallipes* are protected against taking and sale.

Vascular plants, bryophytes, lichens and fungi

- 1.13 With regards to native flora the Act makes it an offence to (subject to exceptions) intentionally or recklessly pick, uproot or destroy any wild plant listed in Schedule 8. Similarly, the Act prevents the sale, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Non-native species

- 1.14 The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales.

Sites of Special Scientific Interest

- 1.15 The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites can be identified for their flora, fauna, geological or physiological interest. In England, the power to confirm an SSSI lies with Natural England.
- 1.16 Laws protecting areas designated as SSSIs are described in Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act 1981 (as amended). SSSIs are the principle statutory designation of sites in the UK and offences are enforced through Natural England. Offences include the following:

SSSI owners and occupiers

- carrying out, causing or allowing operations likely to damage an SSSI without Natural England consent.
- failing to keep to a management notice.

- failing to let us know about a change in ownership or occupation of land in an SSSI.

Public bodies

- carrying out or authorising operations likely to damage an SSSI without meeting the requirements to notify Natural England.
- failing to minimise any damage to an SSSI and if there is any damage, failing to restore it to its former state so far as is reasonably practical and possible.

Any person

- intentionally or recklessly damaging, destroying or disturbing any of the habitats or features of an SSSI.
- intentionally or recklessly damaging, destroying, obscuring or taking down a site notice put up on land within an SSSI.
- preventing a Natural England officer lawfully accessing an SSSI.

Environment Act 2021

- 1.17 The act was passed on 10th November 2021 and covers a range of environmental protections and enhancements. It is enforced by an independent Office for Environmental Protection (OEP). In relation to nature and biodiversity, the act will deliver:

- Strengthened biodiversity duty
- A requirement for developments to deliver at least 10% biodiversity net gain
- Local Nature Recovery Strategies
- Protected Site Strategies and Species Conservation Strategies
- Conservation Covenants
- Strengthened woodland protection enforcement measures

Protection of Badgers Act 1992

- 1.18 Badgers and their setts are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from persecution by baiting and deliberate harm or injury.

The act makes it an offence to:

- intentionally capture, kill or injure a badger;
- damage, destroy or block access to their setts;
- disturb badgers in setts;
- treat a badger cruelly;
- deliberately send or intentionally allow a dog into a sett; and
- bait or dig for badgers.

- 1.19 A sett is defined as: *“Any structure or place that displays signs indicating current use by a badger”*.

Natural Environmental and Rural Communities (NERC) Act 2006

- 1.20 Section 40 of the NERC Act 2006 imposes a duty on every public authority to conserve biodiversity in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.
- 1.21 Section 41 (S41) of the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) has been drawn up in consultation with Natural England and draws upon the UK BAP List of Priority Species and Habitats. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006.

National Planning Policy Framework (NPPF) 2024

- 1.22 The National Planning Policy Framework (NPPF) sets out the Government's planning policy for England. As such, the NPPF must be a material consideration for local authorities when considering planning decisions. The following relate to ecology/biodiversity:

Policy 15 – Conserving and enhancing the natural environment

187. The planning system should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

188. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

189. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and National Landscapes which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas

190. When considering applications for development within National Parks, the Broads and National Landscapes, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

191. Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 189), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

192. To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

193. When determining planning applications, local planning authorities should apply the following principles:

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

194. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

195. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Surrey Nature Recovery Strategy

- 1.23 Required by law under the Environment Act 2021, every county in England will produce a Local Nature Recovery Strategy (LNRS). These strategies will work together to restore, create and connect habitats across England.
- 1.24 The Nature Recovery Strategy for Surrey is currently undergoing public consultation until 25th September 2025 and the results are due to be published in early 2026.

APPENDIX B: SITE PHOTOGRAPHS



Photo 1: Acid grassland and northern boundary



Photo 2: Ruderal



Photo 3: Other neutral grassland and southern boundary



Photo 4: Tree-line and public right of way



Photo 5: Southern boundary hedgerow and modified grassland



Photo 5: Yard and stables



Photo 7: Southern boundary with stream



Photo 8: eastern boundary and modified grassland



Photo 9: Grasslands looking towards eastern boundary



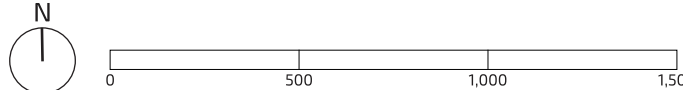
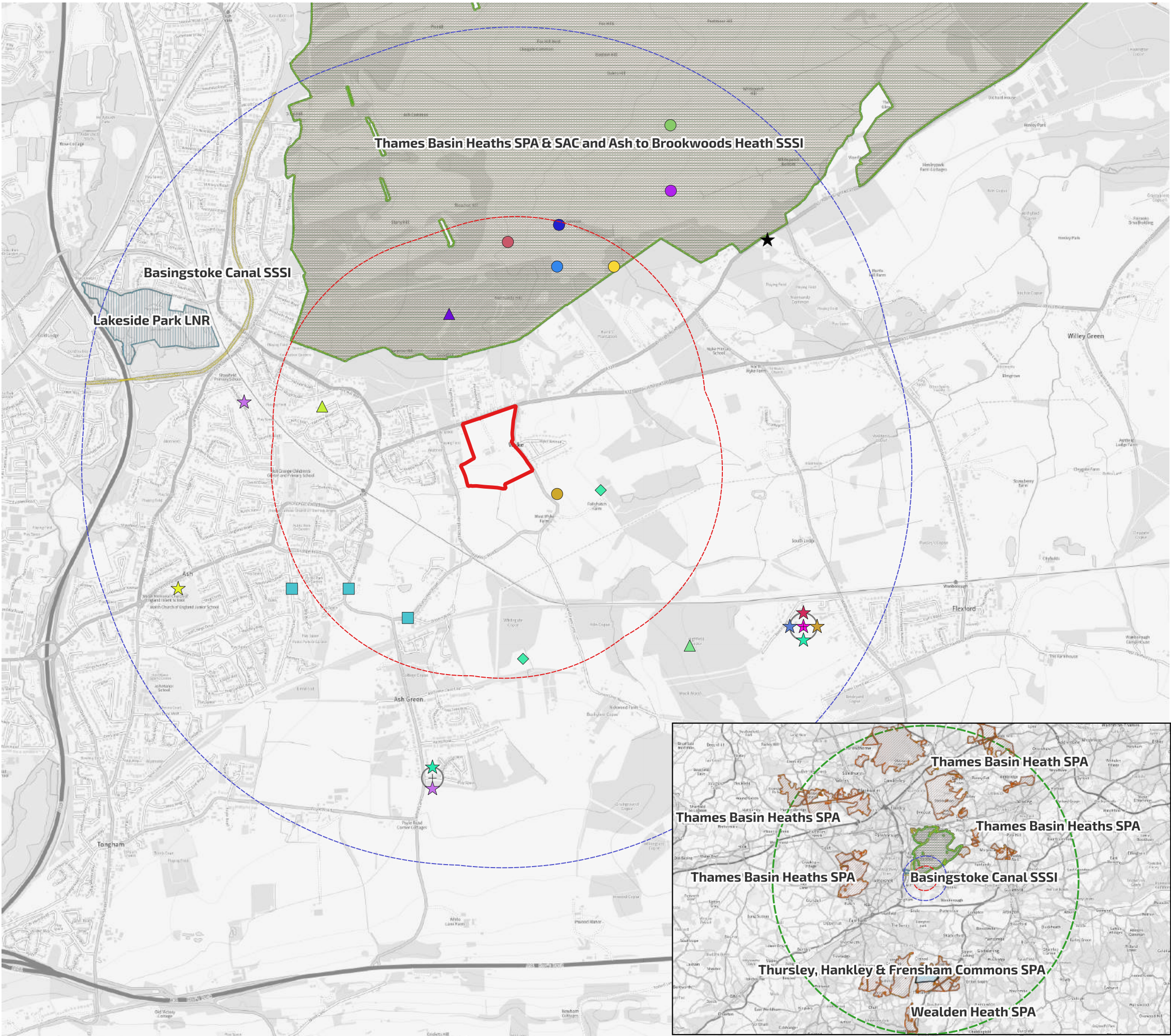
Photo 10: Modified grassland and tree-line

APPENDIX C: BOTANICAL SPECIES LIST

Scientific Name	Common Name	Modified Grassland	Other Lowland Acid Grassland	Other Neutral Grassland	Ephemeral / Ruderal	Scrub	Tall Forbs	Hedgerows	Tree lines	Dry stream bank	Individual Trees
<i>Fraxinus excelsior</i>	Ash							✓			
<i>Scorzonoides autumnalis</i>	Autumn hawkbit			✓							
<i>Sedum acre</i>	Biting stonecrop				✓						
<i>Solanum dulcamara</i>	Bittersweet							✓			
<i>Ballota nigra</i>	Black horehound							✓			
<i>Prunus spinosa</i>	Blackthorn							✓			
<i>Rubus fruticosus</i>	Bramble					✓		✓	✓		
<i>Pteridium aquilinum</i>	Bracken	✓					✓				
<i>Rumex obtusifolius</i>	Broadleaved dock			✓	✓						
<i>Plantago coronopus</i>	Buck's-horn plantain	✓		✓							
<i>Hypochaeris radicata</i>	Cats-ear		✓								
<i>Ranunculus sceleratus</i>	Celery-leaved buttercup									✓	
<i>Galium aparine</i>	Cleavers									✓	
<i>Dactylis glomerata</i>	Cock's foot	✓		✓				✓	✓		
<i>Agrostis capillaris</i>	Common bent	✓	✓								
<i>Centaurium erythraea</i>	Common century		✓								
<i>Scrophularia nodosa</i>	Common figwort									✓	
<i>Pulicaria dysenterica</i>	Common fleabane	✓									
<i>Urtica dioica</i>	Common nettle							✓			
<i>Papaver rhoeas</i>	Common poppy				✓						
<i>Vicia sativa</i>	Common vetch	✓									
<i>Potentilla reptans</i>	Creeping cinquefoil	✓			✓						
<i>Cirsium arvense</i>	Creeping thistle			✓							
<i>Prunus insititia</i>	Damson							✓			

Scientific Name	Common Name	Modified Grassland	Other Lowland Acid Grassland	Other Neutral Grassland	Ephemeral / Ruderal	Scrub	Tall Forbs	Hedgerows	Tree lines	Dry stream bank	Individual Trees
<i>Taraxacum officinale</i>	Dandelion							✓	✓		
<i>Rosa canina</i>	Dog rose							✓			
<i>Sambucus nigra</i>	Elder							✓			
<i>Ulmus procera</i>	Elm							✓			
<i>Arrhenatherum elatius</i>	False oat grass	✓			✓						
<i>Acer campestre</i>	Field maple							✓			
<i>Chamaenerion angustifolium</i>	Great willowherb								✓		
<i>Crataegus monogyna</i>	Hawthorn							✓	✓		
<i>Corylus avellana</i>	Hazel							✓			
<i>Oenanthe crocata</i>	Hemlock water-dropwort									✓	
<i>Ilex aquifolium</i>	Holly							✓	✓		✓
<i>Lonicera periclymenum</i>	Honeysuckle							✓			
<i>Calystegia silvatica</i>	Large bindweed							✓			
<i>Trifolium dubium</i>	Lesser trefoil			✓							
<i>Cupressus x leylandii</i>	Leylandii spp.							✓			
<i>Ranunculus acris</i>	Meadow buttercup			✓							
<i>Alopecurus pratensis</i>	Meadow foxtail	✓									
<i>Pilosella officinarum</i>	Mouse-ear hawkweed	✓									
<i>Lapsana communis</i>	Nipplewort				✓						
<i>Quercus robur</i>	Pedunculate oak							✓	✓		✓
<i>Lolium perenne</i>	Perennial rye grass	✓	✓	✓							
<i>Sonchus arvensis</i>	Perennial sow-thistle	✓									
<i>Vulpia myuros</i>	Rat's-tail fescue	✓									
<i>Trifolium pratense</i>	Red clover	✓									

Scientific Name	Common Name	Modified Grassland	Other Lowland Acid Grassland	Other Neutral Grassland	Ephemeral / Ruderal	Scrub	Tall Forbs	Hedgerows	Tree lines	Dry stream bank	Individual Trees
<i>Festuca rubra</i>	Red fescue			✓							
<i>Carex remota</i>	Remote sedge									✓	
<i>Plantago lanceolata</i>	ribwort plantain	✓									
<i>Poa pratensis</i>	Rough-meadow grass	✓		✓				✓	✓		
<i>Matricaria chamomilla</i>	Scented mayweed				✓						
<i>Pinus sylvestris</i>	Scott's pine										✓
<i>Rumex acetosella</i>	Sheep sorrel		✓								
<i>Bromus hordeaceus</i>	Soft-brome	✓									
<i>Vulpia bromoides</i>	Squirrel-tail fescue		✓	✓							
<i>Acer pseudoplatanus</i>	Sycamore										✓
<i>Bryonia alba</i>	White bryony							✓			
<i>Achillea millefolium</i>	Yarrow	✓			✓						
<i>Holcus lanatus</i>	Yorkshire fog	✓	✓	✓						✓	



- ### Key

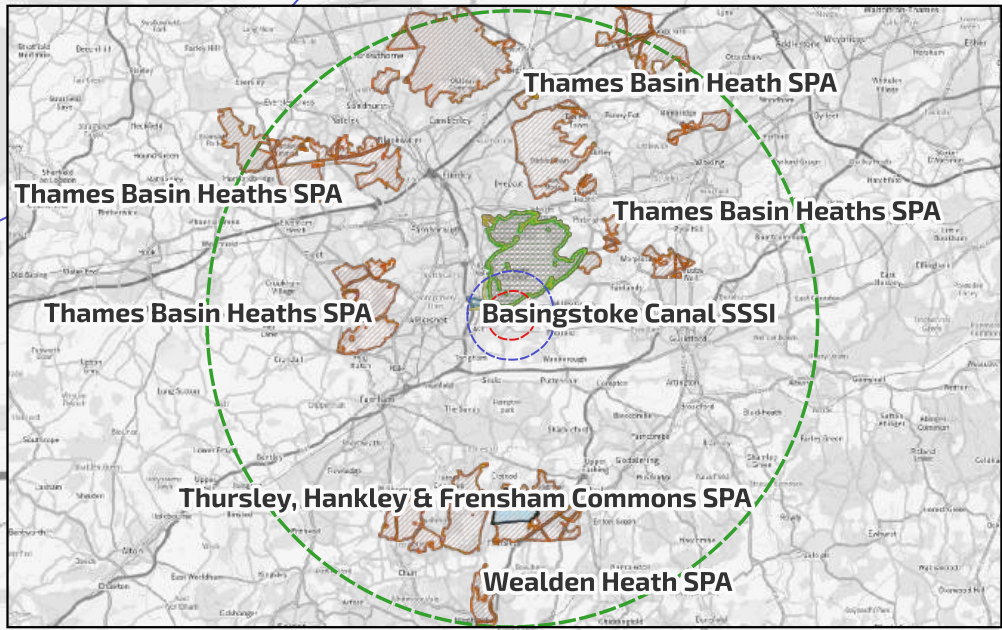
Bats

★ Brown Long-eared Bat	▭ Site Boundary
★ Common Pipistrelle	- - - 1km Buffer
★ Daubenton's Bat	- - - 2km Buffer
★ Myotis Bat species	- - - 15km Buffer
★ Nathusius's Pipistrelle	▨ SSSI
★ Noctule	▨ LNR
★ Soprano Pipistrelle	▨ SAC
	▨ SPA
- #### Birds

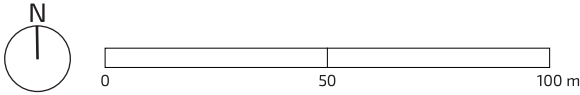
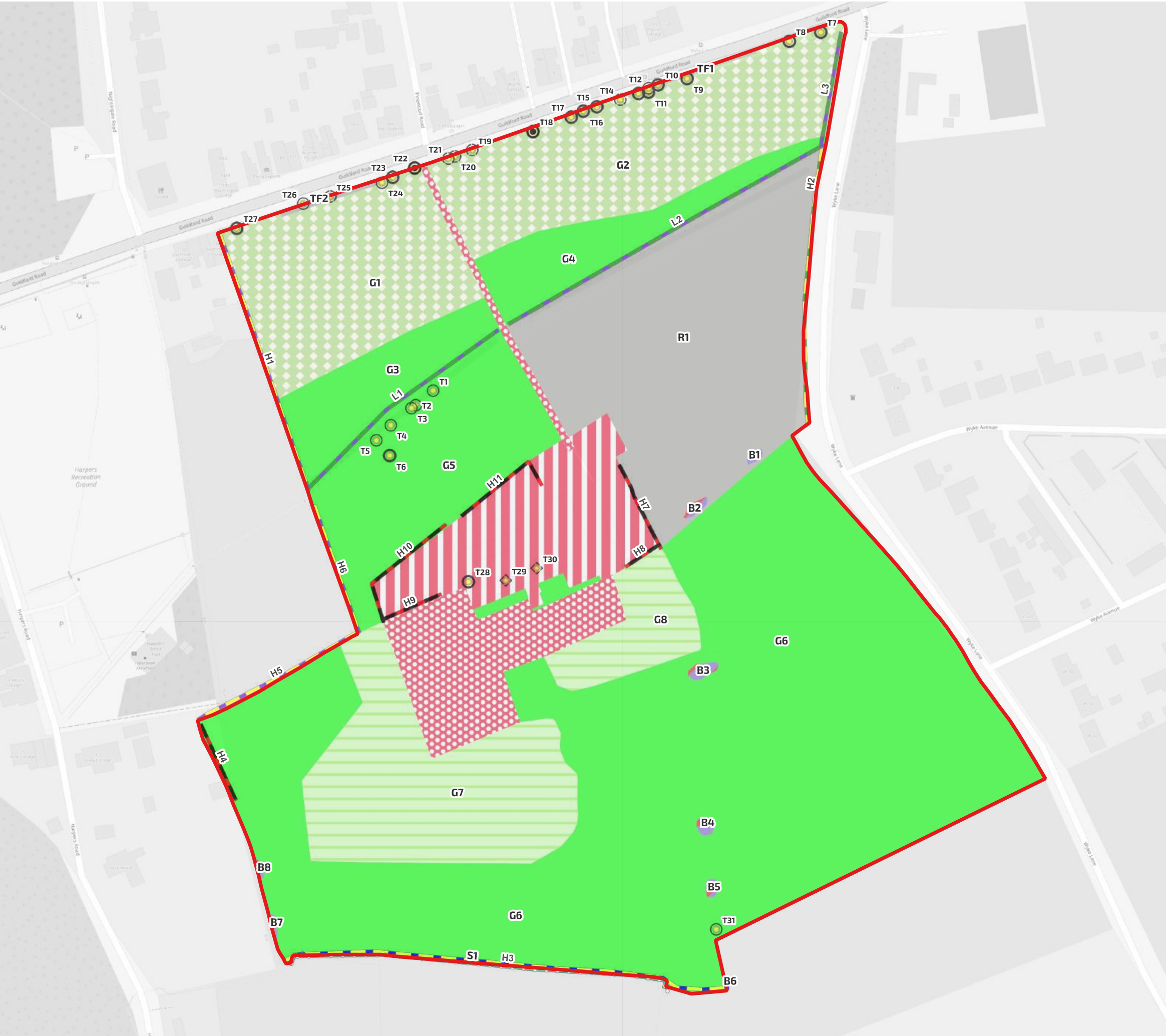
 - Cuckoo
 - Dartford Warbler
 - Hen Harrier
 - Hobby
 - Skylark
 - Tree Pipit
 - Woodlark
- #### Insects

 - ◆ Brown Hairstreak
- #### Reptiles & Amphibians

 - ▲ Adder
 - ▲ Grass Snake
 - Great Crested Newt
 - ▲ Slow-worm



date	23/10/25	drwn/chkd	LEB / REM
client	Gleeson Land Ltd		
project	Land at Shortland Farm, Ash		
title	CONSULTATION PLAN	scale	1:20,000 @ A3
number	FIGURE 1	rev	-



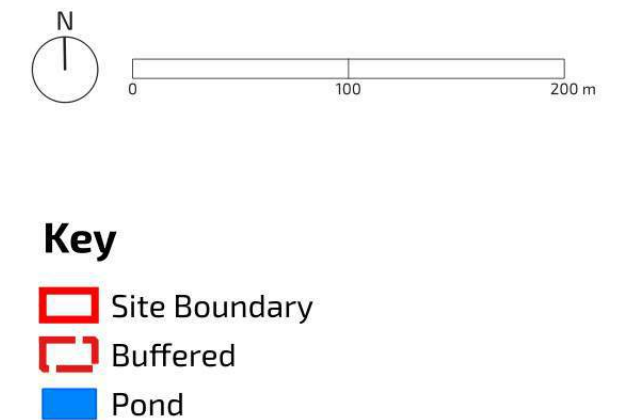
- Site Boundary
- Baseline Habitats
 - Artificial unvegetated, unsealed surface
 - Bramble scrub
 - Developed land; sealed surface
 - Modified grassland
 - Other lowland acid grassland
 - Other neutral grassland
 - Ruderal/Ephemeral
 - Tall forbs
- Baseline Hedgerow
 - Non-native and ornamental hedgerow
 - Line of trees
 - Native hedgerow
 - Native hedgerow - associated with bank or ditch
 - Native hedgerow with trees
- Baseline Watercourse
 - Other rivers and streams
- Baseline Individual Trees
 - Existing very large rural tree
 - Existing large rural tree
 - Existing medium rural tree
 - Existing small urban tree
 - Existing small rural tree

date 29/10/25 drwn/chkd DS / REM

client Gleeson Land Ltd.
project Land at Shortland Farm, Ash

title UKHab Plan scale 1:1,700 @ A3

number FIGURE 2 rev -



client
Gleeson Land Ltd.

project
**Land at Shortland Farm,
Ash**

number

FIGURE 3

FPCR | environment
& design



APPENDIX D: BAT SURVEY REPORT

Client

Gleeson Land

Project

**Land at Shortland Farm,
Ash**

Date

October 2025

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Figure 8: Bat Transect Plan - Autumn

APPENDICES

Appendix A: Screenshots from NVAs

Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	REM / 19/09/25	APD / 02.10.25
-	Final	REM / 23/10/25	NK / 23/10/25
-	Final	REM / 29/10/25	N/A Minor

1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
- A suite of bat surveys have, and are, being conducted on behalf of Gleeson Land Ltd. for Land at Shortland Farm (Central OS grid reference: SU 90642 51034). The Site comprises horse grazed grasslands with associated hedgerows, treelines and a dry stream along the Southern Site boundary. - Night-time bat walkover surveys were conducted in May, July and September, along with monthly automated static surveys from July to October. Ground level tree assessments of the trees onsite and preliminary roost assessment of the onsite buildings were also undertaken, followed by the appropriate emergence surveys or aerial surveys.
Ecological Baseline
- A total of 11 bat species / species groups were recorded onsite during the static and night-time bat walkover surveys. Low levels of activity were recorded with most activity comprising commuting bats and the majority of registrations from common pipistrelle. - An Annex II species, Barbastelle, was recorded on some of the automated static surveys, with an average of between 10 and 30 registrations per static; very low levels of activity. - A single tree (T1) with the potential to support roosting bats that may be impacted by the development proposals was noted onsite and aerial surveys of the tree classified it as supporting a PRF-M. - One stable building onsite was considered to have low potential for roosting bats and an emergence survey on the building did not record any bats emerging from the building.
Assessment of Impacts
- The Site proposals include the loss of much of the grassland within the Site and the loss of non-native hedgerows within the yard. The tree-lines, most of the trees and the acid grassland are to be retained within the current proposals. - Retention of the tree-lines and boundary hedgerows will maintain connectivity through the Site and to the surrounding area, maintaining commuting routes for bats. Retention of some grassland onsite will also continue to provide some foraging resources. - T1 has the potential to be impacted by light spill from the development, reducing the suitability of the tree for roosting bats.
Recommended Mitigation, Compensation and Enhancement
- New species-rich grassland, hedgerows, scrub and tree planting is proposed within the development scheme which will provide better quality foraging habitats for bats than the grazed horse fields currently present. The creation of new hedgerows will strengthen commuting routes. - A sensitive lighting strategy should be implemented across the Site to keep light spill to a minimum. A dark corridor should also be maintained along the tree-line running east to west through the Site, as this is a good commuting routes for bats. - Bat boxes and bricks can be implemented within the development to increase roosting opportunities within the Site.

2.0 INTRODUCTION

- 2.1 This Bat Survey Report has been prepared by FPCR Environment and Design Ltd. To accompany an application for outline planning permission for the redevelopment of Land at Shortland Farm, Guildford Road, Ash, Guildford (herein referred to as 'the Site'). The application is submitted on behalf of Gleeson Land.
- 2.2 The report has been prepared to achieve the following objectives:
- Summarise the survey and assessment methodologies employed to assess the importance of the Site for bat species
 - Provide the desk study records of bats within a 2km radius of the site
 - Provide the results of a surveys undertaken in 2025
 - Provide recommendations for avoidance, mitigation, compensation and/or enhancement in accordance with the WCA legislation and the NPPF mitigation hierarchy where required.
- 2.3 A suite of ecological surveys has been undertaken on the application site and this report should be read in conjunction with the Ecological Impact Assessment (EcIA, FPCR 2025) prepared to support the application.

Site Location & Context

- 2.4 The application Site is approximately 10.18 ha and is located West of Guildford in Surrey (Central OS Grid Ref: SU 90646 51040). The Site is predominantly comprised of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site with includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 2.5 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Site Proposal

- 2.6 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:
- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
 - green and blue infrastructure; and
 - associated service and utility structures

The northern parcel of the Site lies within the 400m exclusion zone associated with the Thames Basin Heath and so no dwellings are proposed within this area.

3.0 LEGISLATION

- 3.1 All bats and their roosts are afforded legal protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife & Countryside Act 1981 (as amended). The purpose of the legislation is to maintain and restore protected species to a situation where their populations are favourable.
- 3.2 Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to deliberately capture, injure or kill; deliberately disturb (including intentionally or recklessly) all UK bat species. This includes disturbance which impairs their ability to: breed and rear young; migrate; and hibernate; or affects their local distribution and abundance.
- 3.3 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:
- Recklessly or intentionally kill, injure or take any wild animals included in Schedule 5;
 - Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; and/or
 - Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.
- 3.4 Foraging habitat and commuting routes used by bats are not protected as such, but impacts that could prevent bats from using a resource or commuting to or from a valued roosting site may be considered as an indirect impact on a roost or a significant disturbance effect and would therefore also need to be avoided or prevented.
- 3.5 Several bat species are listed as species of principal importance for the purpose of conserving biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006. These species are Barbastelle bat, Bechstein's bat, brown long-eared bat, greater horseshoe bat, lesser horseshoe bat, noctule and soprano pipistrelle.
- 3.6 Bats are recognised in the National Planning Policy Framework (NPPF)¹ which advises that when determining planning applications, Local Planning Authorities should aim to conserve and enhance biodiversity by applying a set of principles including:
- "If significant harm resulting from a development cannot be avoided....., adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

¹Department for Communities and Local Government. (2019). National Planning Policy Framework. Available from: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

4.0 METHODOLOGY

Desk Study

4.1 A desk study was undertaken to collate existing information for the site and its surroundings in relation to bat species. This included a review of:

- Biological records requested from Surrey Biodiversity Information Centre (SBIC)
- Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.defra.gov.uk); and
- Granted EPS licences for bats from <https://magic.defra.gov.uk/magicmap.aspx>
- Publicly available aerial imagery showing connectivity across the site and to the wider landscape.

4.2 Bat records were searched for at a resolution of 2km around the Site and were limited to records from within the last 20 years.

Roost Assessment

Buildings and Structures

Preliminary Roost Assessment

4.3 An external and internal building assessment was carried out on the buildings on the 30th May 2025, by Anna Chalmers and Lorcan White, accredited ecologists from FPCR Environment and Design Ltd. The assessment was completed considering the guidance provided in chapters 4 and 5 of the Bat Surveys for Professional Ecologists, Good Practice Guidelines, 2023².

External Building Assessment

4.4 The exterior of the buildings were visually assessed for potential access points and evidence of bat activity. Features such as small gaps under barge/soffit/fascia boards, raised or missing ridge tiles and gaps at gable ends, which have potential to be used as access points, were sought. In addition, structural features were noted that could provide suitable hibernation potential or not. Evidence that bats actively used potential access points includes staining within gaps and bat droppings or urine staining under gaps, a note being made wherever these were present. Where they could be safely accessed crevices were inspected for the presence of bats or their signs using torches, mirrors and endoscopes.

Internal Assessment

4.5 The interior of the buildings, including all accessible roof voids, were also visually assessed with the aid of an endoscope, mirrors and torches to identify potential or actual bat access points and roosting places and for evidence of current or past bat roosts. Definitive evidence of a bat roosts was determined by the presence of:

- Dead or live bat(s); and/or
- Droppings.

² Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London.

4.6 Other less definitive signs were also sought as indicators of potential roosting bats, these included:

- Urine staining;
- Fur-oil staining;
- Feeding remains such as moth wing fragments;
- Audible calls;
- Bat-fly (*Nycteribiid*) pupal cases; or
- Odour

4.7 The absence of any of the above evidence was not considered to be definitive evidence that no roosts were present as bats may leave no visible sign of their presence particularly where they occupy inaccessible or hidden spaces within a building.

4.8 Subsequently, the buildings (or where relevant, sections of) were categorised according to their suitability to support roosting bats and whether they provide classic or non-classic hibernation potential or not. These were classified according to the features present within the buildings (see Table 1).

Potential Bat Roosting Suitability

4.9 Following the internal and external assessments each building was assigned a category according to its roosting suitability which is based on Table 4.1 of Collins (2023), this potential suitability is used to indicate the likely requirements for any further surveys to determine the presence or absence of roosting bats.

Table 1: Building bat roost habitat classifications (based on Table 4.1 Collins, 2023)

Roost Suitability	Description of Roosting Habitats	Further Survey Requirements to Provide Confidence in the Likely Absence of Roosting Bats Within a Structure
None	No habitat features on site that are likely to be used by bats at any time of the year.	No further surveys or consideration of roosting bats is required.
Negligible	No obvious habitat features are present that are likely to be used by roosting bats, but features may be present where a bat could theoretically roost but it is considered very unlikely.	No further surveys are required, but some vigilance may be required if the feature is impacted.
Low	A structure 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, 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 classic hibernation roost).	Up to one single dusk emergence survey undertaken between May and August. (requirement is based on professional judgment). Precautionary method statement if works are to be undertaken during the winter period (where non-classic hibernation potential exists).

Roost Suitability	Description of Roosting Habitats	Further Survey Requirements to Provide Confidence in the Likely Absence of Roosting Bats Within a Structure
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Two separate dusk emergence surveys undertaken between May and September and at least one between May and August and spread at least 3 weeks apart. Precautionary method statement if works are to be undertaken during the winter period (where non classic hibernation potential exists).
High	A structure 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. These structures have the potential to support High conservation status roosts such as those used for maternity or hibernation (classic site).	Three separate dusk emergence surveys undertaken between May and September and at least two between May and August and spread at least 3 weeks apart. Where classic hibernation potential is present hibernation surveys should be undertaken during the winter period.
A classic hibernation site is considered to provide stable climatic conditions including temperature humidity, and light level such as, but not exclusively limited to underground structures which are subject to low levels of disturbance or species specific habitual requirements such as where brown long-eared bats often use a the same roosts for maternity and hibernation purposes. A non-classic hibernation site is a location which does conform to the criteria above but could be used by individual hibernating bats. It usually not possible to identify non-classic hibernation sites through surveys work.		

Emergence Surveys

- 4.10 Following the building assessment survey on 30th May 2025 the structure of and features associated with the stables (B5) were considered to present low potential to support roosting bats. Due to the presence of suitable potential roosting features identified the gaps between the wooden boards and breeze block wall, one nocturnal bat survey was carried out 14th July 2025.
- 4.11 During the nocturnal survey, two surveyors were positioned so that all aspects of the building with the potential to support bats could be observed. The emergence surveys commenced at least 15 minutes prior to sunset until at least 90 minutes following sunset. The number and species of bats observed emerging or entering the buildings was recorded.
- 4.12 Any notable activity patterns including commuting and/or foraging within the vicinity of the building was recorded.
- 4.13 Echo Meter Touch® (Wildlife Acoustics, Inc.) bat detectors were utilised in conjunction with Echo Meter Touch® app. Where necessary to confirm species identification Bat calls were analysed using the Kaleidoscope Viewer® (Wildlife Acoustics, Inc.) software package.
- 4.14 All surveyors were equipped with night vision aids (NVA's) to enhance visibility of the survey area throughout the survey. NVA's were set to record for the duration of the survey, where roosting bats were observed or uncertain behaviours observed, footage was extracted, analysed and saved. A still shot of the darkest point of the survey was also extracted and saved and are included in Appendix A. NVA's used were Nightfox Whisker night vision binoculars with an associated IR lighting for each unit.
- 4.15 This survey was led by an ecologist conforming to at least BCT level 2 competency.

- 4.16 The nocturnal survey was conducted in appropriate conditions, i.e. ambient temperature exceeding 10°C and little wind and no rain, details are provided in Table 2 below.

Table 2: Summary of Emergence Survey Dates and Conditions

Survey Date	Buildings Covered	Start / Finish	Sunset	Conditions
14/07/25	B5	20:59 to 22:44	21:14	15°C, 0% cloud cover, 3BF, no rain.

Trees

Preliminary Roost Assessment (ground level)

- 4.17 Preliminary Roost Assessments (PRA) were undertaken from ground level, with the aid of binoculars on 30th May 2025 by suitably experienced ecologists from FPCR. Potential Roosting Features (PRFs) (based on p.16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015) which were sought included:
- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar;
 - Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems;
 - Woodpecker holes;
 - Cracks/splits in stems or branches (horizontal and vertical);
 - Partially detached, loose or platy bark;
 - Cankers (caused by localised bark death) in which cavities have developed;
 - Other hollows or cavities, including butt rots;
 - Compression of forks with occluded bark, forming potential cavities;
 - Crossing stems or branches with suitable roosting space between;
 - Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk); and
 - Bat or bird boxes.
- 4.18 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings, and its location in respect to other features may enhance or reduce the potential value.
- 4.19 Using professional judgement, the ground-based PRA assessment classified any trees identified based upon the presence of suitable features as set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023³) in which the general bat roost potential groups are defined (refer Table 4.2 of the guidelines) and provided in *Table 3* below.

Table 3: Suitability of trees for bats

³ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

Suitability	Description
NONE	Either no potential roost features or highly unlikely to be any.
FAR	Further Assessment Required to establish if Potential Roost Features are present.
PRF	A tree with at least one Potential Roost Feature.

Aerial Inspection Surveys

- 4.20 Any trees that were categorised as Further Inspection Required (FAR) or Potential Roost Feature (PRF) were subject to further aerial inspection. This survey included a detailed inspection of trees for the presence of further PRF's and also for the level of suitability provided by PRF's.
- 4.21 This assessment was completed by suitably experienced and accredited ecologists meeting the BCT competency requirements on the 9th and 23rd July.
- 4.22 The survey involved accessing the tree using arborists tree climbing techniques (certified to Climb Trees (J/101/2449) and Perform Aerial Rescue (A/101/2450) – Level 2 (NPTC). The climbing methodology used follows that detailed within the Arboriculture and Forestry Advisory Group (AFAG) Tree Climbing Operations Leaflet (AFAG401) and included inspecting each PRF for suitability and evidence of current or past occupation by bats using endoscopes, mirrors, torches and cameras as necessary.
- 4.23 Each PRF was then categorised as outlined in *Table 4*.

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work / Actions
Negligible/ No potential	Negligible/no habitat features likely to be used by roosting bats	None.
PRF-I	A tree with one or more Potential Roosting Features that are suitable for only individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats. Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.	No further survey is required but appropriate compensation must be provided in advance of impacts and a precautionary working method statement must be applied. ^A
PRF-M	A tree with PRF's which could support multiple bats and may therefore be used by a maternity colony. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	Three aerial assessments ^B of PRF's by appropriately licensed/ accredited tree climbers to determine presence or likely absence of roosting bats. Surveys were undertaken between May and September (with at least two surveys between May and August and spread at least three weeks apart). ^C If roost sites are confirmed and the roost is affected by proposals a licence from Natural England will likely be required. After completion of survey work (and the presence of a bat roost is discounted), a precautionary pre-felling survey or working method statement may still be appropriate.

Table 4: Bat Classification and Survey Requirements for Bats in Trees

^A In circumstances where there are lots of trees grouped together with PRF-I then further surveys may still be appropriate.

^B Nocturnal surveys using NVA's may be appropriate if a tree or PRF cannot be sufficiently accessed or fully assessed.

^C If the initial aerial inspection was undertaken during the optimum survey period, this can count as one of the three surveys

Emergence Surveys

- 4.24 A single tree that was unsafe to climb had a series of emergence surveys completed on instead. Three emergence surveys were planned (as best practice), however the third survey was not completed as a fixed layout plan was released, indicating that this tree would not be impacted through loss or lighting. Due to their being no anticipated impact, surveys are not required.
- 4.25 The emergence surveys commenced at least 15 minutes prior to sunset until at least 90 minutes following sunset. The number and species of bats observed emerging or entering the buildings was recorded.
- 4.26 Any notable activity patterns including commuting and/or foraging within the vicinity of the building was recorded.
- 4.27 Echo Meter Touch® (Wildlife Acoustics, Inc.) bat detectors were utilised in conjunction with Echo Meter Touch® app. Where necessary to confirm species identification Bat calls were analysed using the Kaleidoscope Viewer© (Wildlife Acoustics, Inc.) software package.
- 4.28 All surveyors were equipped with night vision aids (NVA's) to enhance visibility of the survey area throughout the survey. NVA's were set to record for the duration of the survey, where roosting bats were observed or uncertain behaviours observed, footage was extracted, analysed and saved. A still shot of the darkest point of the survey was also extracted and saved and are included in Appendix A. NVA's used were Nightfox Whisker night vision binoculars with an associated IR lighting for each unit.
- 4.29 These surveys were led by an ecologist conforming to at least BCT level 2 competency.
- 4.30 All of the nocturnal surveys were conducted in appropriate conditions, i.e. ambient temperature exceeding 10°C and little wind and no rain, details are provided in Table 5 below.

Table 5: Summary of Emergence Survey Dates and Conditions

Survey Date	Tree surveyed	Start / Finish	Sunset	Conditions
23/07/25	T4	20:49 to 22:34	21:04	17°C, 20% cloud cover, 1 BF, no rain.
18/08/25	T4	20:03 to 21:48	20:18	18°C, 100% cloud cover, 1 BF, no rain.

Bat Activity

Habitat Assessment

- 4.31 This assessment was undertaken to identify the suitability of the Site to foraging and commuting bats or areas which may be important for exhibiting various social behaviours. This was informed by the results of the initial UKHabs survey and also from information gathered in the desk study to ensure that potential effects are considered in the context of the onsite habitats within the wider area.

- 4.32 The Site was also categorised for its habitat suitability for bats, which would inform the necessary survey effort. The habitat suitability was assessed using guidance from 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Bat Conservation Trust, 4th Edition, 2023). Table 4.1 of those guidelines provides an outline for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape. This should be applied using professional judgement. This groups a site into five categories based on habitat suitability for foraging and commuting bats which has been further summarised in *Table 6*, below:

Table 6: Criteria for Assessing Habitat Suitability for Commuting and Foraging Bats - Based on table 4.1 (Collins, 2023)

Suitability	Potential Flight Paths and Foraging Habitat	Proposed Further Survey Requirements
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).	No further surveys required
Negligible	No obvious habitat features on site likely to be used as flightpaths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.	
Low	Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.	Automated static detector monitoring and nighttime bat walkover surveys (flight path and transect) on a seasonal* basis.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.	Automated static detector monitoring on a monthly basis and nighttime bat walkover surveys (flight path and transect) on a seasonal* basis.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.	
*Seasonal surveys should be increased to monthly where Annex II species are expected/ detected or if significant commuting routes are identified.		

Bat Activity Surveys

- 4.33 Bat activity surveys were undertaken because the Site was considered to provide moderate suitability for bats. These surveys were undertaken to identify the value of the Site to foraging

and commuting bats or areas which may be important for exhibiting various social behaviours so that the effects of the proposals can be assessed.

4.34 In order to inform an impact assessment, where possible the bat activity surveys aim to identify:

- The presence or absence of bats, abundance and species using the Site whilst away from the roost;
- The usage of the habitats on the Site by bats;
- The temporal (both seasonally and nightly) and spatial distribution of recorded bat activity on site and any associations in terms of timings or particular features;
- Any connectivity in terms of habitats within the Site and/or the surrounding area;
- The effect of any existing lighting on the existing bat population.

Static Monitoring

4.35 Static (passive) monitoring was undertaken using an automated logging system (Wildlife Acoustics Inc. Song Meter® SM4BAT FS bat detectors with SMM-U2 microphones). During the survey period, static detectors were deployed within the survey area in habitats likely to be impacted by the development and/or habitats suitable for navigational/foraging routes. Locations are shown in *Figure 1*. Three detectors were used per month.

4.36 The devices were deployed for 5 consecutive nights during suitable weather conditions that were typical for the season/month of deployment and were programmed to activate 30 minutes before sunset and record continuously until 30 minutes following sunrise.

4.37 Static detectors were deployed monthly throughout the season, with surveys still to be completed for October 2025 and April, May and June 2026. The detectors were deployed during the following periods outlined in *Table 7*:

Table 7: Automated Activity Survey Timings

Month	Start Date	End Date
July	08.07.25	12.07.25
August	13.08.25	18.08.25
September	03.09.25	11.09.25

4.38 Following collection, the recordings are analysed using Sonobat software by experienced ecologists. Each sound file (15 seconds in length) is counted as a single bat pass or registration for each species visible in the sound file. The total number of registrations provides an indication of the relative importance of the site/detector location for bats.

Nighttime Bat Walkover (Flightpath / Transects Surveys)

4.39 In line with current guidance (Collins, 2024) nighttime bat walkovers are undertaken in two parts. The first part is undertaken by stationary surveyors positioned on habitat features most likely to be utilised as commuting routes by bats. Once conditions become too dark to see or once commuting activity has been observed and has largely ended, surveyors begin a walked

transect sampling all areas and habitats within the Site noting any bat activity that is heard or observed along the way. Whilst this includes two elements it is one survey designed to record information to provide further context to elements that static detectors cannot always identify such as bat behaviour or abundance of bats.

- 4.40 The first part of the survey to observe flightpaths involved two surveyors being positioned at predetermined locations. The survey started just before sunset and lasted for between 30 minutes and one hour after sunset. After this the walked transect was started and continued until two to three hours after sunset. The route followed during each transect was repeated on each survey occasion, however the starting point was varied throughout the season.
- 4.41 Surveyors were equipped with Wildlife Acoustics Inc. Echo Meter Touch® bat detectors in conjunction with Echo Meter Touch® app and Samsung Galaxy Tab Active 3® during the transect surveys to detect bats and aid species identification. And during the survey noted any bat activity observed during the survey All transects were undertaken when conditions were suitable, i.e. when the ambient air temperature exceeded 10°C and there was little wind and no rain.
- 4.1 The timings and weather conditions for the activity transects are shown in *Table 8* below.

Table 8: Nighttime Bat Walkover Timings & Conditions

Date	Sunset Time	Start time (Flightpath)	Start Transect	End Transect	Start Temp	Wind (Beaufort Scale)	Rain	Cloud Cover (%)
22.05.25	20:57	20:57	22:07	23:09	13°C	1	Dry	70%
14.07.25	21:12	21:12	22:19	23:19	17°C	1	Dry	10%
03.09.25	19:45	19:45	20:50	22:00	17°C	2	Dry	50%

- 4.2 The data from the nighttime Bat Walkover survey was analysed as soon as possible after the survey using the Kaleidoscope Viewer® (Wildlife Acoustics, Inc.) software package to assess the amount of bat activity on site by recording the number of bat registrations. Measurements including peak frequency, inter-pulse interval, call duration and end frequency were taken to aid in species identification. This analysis was completed by a suitably experienced ecologist (Analysts are audited internally for quality control purposes and to maintain consistent results).

Limitations

- 4.3 Although species identification is undertaken to as accurate a level as possible, in some cases the quality of the call is such that full species identification cannot be made. Therefore, in some cases terminology may be general and limited to genus level only (for example *Pipistrellus* species or *Myotis* species).
- 4.4 The SM4BAT-FS records sound files of up to 15 seconds in length before a new file is created. The analysis of the SM4BAT-FS files recorded can highlight the presence of more than one bat were recorded simultaneously on the same sound file. However, it is not possible to determine whether consecutive sound files have been recorded as the result of a single bat passing the detector as it commutes across the landscape or by one bat repeatedly triggering the detector as it forages in close proximity for an extended period. Therefore, each sound file is counted

as a single bat registration. The number of sound files recorded does, however, reflect the relative importance of the location of the detector by calculating the bat registrations per hour.

- 4.5 The lower amplitude calls made by brown long-eared bat *Plecotus auritus* and barbastelle *Barbastella barbastellus* are more difficult to detect and may not be picked up by the directional microphones. Therefore, these species may have been under-recorded during these surveys.
- 4.6 Long eared species cannot be separated using their calls, however, they are assumed to be brown long-eared bats based on the limited distribution of grey long-eared bats *Plecotus austriacus* and lack of records in the surrounding area.
- 4.7 Automated static surveys still need to be undertaken for the months of April, May and June.

5.0 RESULTS

Desk Study

- 5.1 No statutory sites that are designated for bats were identified within 15km of the Site.
- 5.2 Records of bats within 2 km of the Site from SBIC are shown in Table 9.
- 5.3 No bat records were received from within the Site.
- 5.4 The records centre did not provide information on the behaviour recorded or whether any records were of roosts or individual bats. Records received were all from over 1km from the Site boundary, with noctule, common pipistrelle, soprano pipistrelle and Nathusius' pipistrelle all recorded approximately 1.5km from the Site and brown long-eared bat 1.1km from the Site.

Table 9: Protected and Notable Species Records

Species	Dates	Legal Protections	Approximate Location Relative to Site
Bat Species	2009	HAB4, WCA, S41	One record, located 405m North-east
Brown long-eared bat <i>Plecotus auritus</i>	2015 - 2018	WCA5, HRegs, NERC41	Nine records, nearest located 1.2km West
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	2015 - 2020	WCA5, HRegs	Five records, nearest located 1.5km South-west
Daubenton's Bat <i>Myotis daubentonii</i>	2020	WCA5, HRegs	One record, located 1.6km South-east
<i>Myotis</i> species	2010	HAB4, WCA	Three records, all located 1.6km West
Nathusius's Pipistrelle <i>Pipistrellus nathusii</i>	2020	WCA5, HRegs	One record, located 1.6km South-east
Noctule <i>Nyctalus noctula</i>	2020	WCA5, HRegs, NERC41	Three records, nearest located 1.6km South-east
Serotine <i>Eptesicus serotinus</i>	2016	WCA5, HRegs, NERC41	Two records, nearest located 1.1km East
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	2020	WCA5, HRegs, NERC41	Four records, nearest located 1.6km South-east

5.5 There were five different bat licences within 2km of the Site on MAGIC, as shown in Table 10.

Table 10: EPSM Licences within 2km of site

Licence Reference	Purpose	Distance from site
2018-33536-EPS-MIT	Destruction of common pipistrelle resting place	0.7km west
EPSM2009-832	Destruction of common pipistrelle resting and breeding place	1km south
EPSM2010-1730	Destruction of soprano pipistrelle and whiskered bat resting place	1.1km north-east
2017-31509-EPS-MIT	Destruction of common pipistrelle and brown long-eared resting place	1.1km west
2018-36990-EPS-MIT-1	Destruction of common pipistrelle and brown long-eared resting place	1.5km south-west

Buildings and Structures

Preliminary Roost Assessment

5.6 The assessment of the buildings for bat roost potential is summarised below in Table 11.

Table 11: Building summary

Building	Description	Photo	Bat roost potential
B1 & B2	Buildings 1 and 2 were old stables with corrugated roofs. There was no void present that could provide bats with potential roosting opportunities, with any gaps on the exterior leading straight into the stable and not a void.		Negligible
B3a	Large, metal stables open on one side with corrugated metal roof and one wall of breeze blocks. Skylights were present, resulting in the inside of the building being well lit. No roof void or potential features.		Negligible
B3b	Similar to B3a, a large stable with breeze block walls a corrugated metal roof and metal beams. No roof void or internal spaces were present.		Negligible
B4	A corrugated metal building with no cavities or roof void..	N/A	Negligible

Building	Description	Photo	Bat roost potential
B5	Large stable blocks with corrugated metal roof. The wooden boards on the back of three of the stables creates a cavity between the breeze block wall of B3 and B4 and the stable interior. Gaps are present between the walls and ceiling for access to the cavity between the board and walls. This cavity has some potential to support roosting bats.		Low
B6	A new looking caravan with all the exterior wall sealed with no lifting. No roof void was present.		Negligible
B7	Brick building with tiled roof used for storage. Small gaps under the roof overhang with a small amount of lifted tiles. Roof liner intact on other side, preventing access to the roof void. Attic is well lit and open, with lots of cobwebs.		Negligible

Emergence Survey

- 5.7 The emergence survey undertaken on B5 recorded no bats leaving or entering the building and so it can be assumed the this building is not being utilised by roosting bats.

Trees

Preliminary Tree Roost Assessment

- 5.8 A total of eight trees were identified within the Site as having roosting bat potential during the ground-level tree assessment conducted in May 2025. Of these, three trees were identified as potentially being impacted by the proposed development at the time of survey. Details of these potentially impacted trees are summarised in *Table 12* below and locations of trees are displayed in *Figure 2*.

Table 12: Bat Potential Trees on Site

Tree Ref.	Tree Species	Bat Potential	Feature(s)	Further Surveys
T1	English Oak	FAR	1m cavity behind platey bark and ivy	Aerial Assessment
T2	English oak	FAR	Dead ivy cladding with cavity behind	Aerial Assessment

Tree Ref.	Tree Species	Bat Potential	Feature(s)	Further Surveys
T3	Ash	FAR	3m and 8m knot holes 8m and 9m woodpecker holes	Emergence surveys

Aerial Tree Assessment Results

- 5.9 Three aerial assessments were carried out on the two trees considered at risk, in accordance with the BCT guidelines. T3 could not be climbed for health and safety reasons and so emergence surveys were undertaken. Where only PRF-I features were recorded, a single climb was undertaken, whereas PRF-M features were subject to two further climbs. No evidence of roosting bats was recorded during the surveys, details of the survey results are provided within Table 13.

Table 13: Aerial Assessment Results

Tree Ref.	Species	PRF	PRF Characterisation
T1	English Oak	10x5cm entrance to a 5x30cm cavity, extending upwards	PRF-M
T2	English Oak	Cavity behind dead ivy extending upwards, 40x5cm	PRF-M

Emergence Surveys

- 5.10 The two emergence surveys completed did not record any bats emerging from the tree and so it can be assumed that the tree is currently not being used by roosting bats.

Habitat Assessment

- 5.11 The hedgerows, tree lines and grassland onsite are considered to be of 'Moderate' value to bats, providing both suitable commuting and foraging habitat. The Site also has connectivity to further grassland habitat and the Thames Basin Heath woodland and heathland to the north of the Site.

Night-time Bat Walkover Surveys

- 5.12 A total of six different species / species groups were recorded on the night-time walkover surveys, with generally low levels of bat activity recorded. The most frequently recorded species was common pipistrelle, comprising the majority of registrations. Activity was generally focused along the tree-lines running east to west through the Site, with minimal activity elsewhere within the Site. There was a mixture of both commuting and foraging activity observed, with commuting bats more frequently recorded.
- 5.13 The September survey recorded the greatest amount of activity, with 28 common pipistrelle registrations. These were mostly from commuting bats recorded during the vantage point portion of the survey.
- 5.14 Table 14 provides a summary of the survey results.

Table 14: Transect Survey Results Summary

Date (Figure ref.)	Total Contacts (incl. vantage points & NBW)	Activity Summary
22.05.25 (Figure 3 & 4)	24 14 common pipistrelle 5 <i>Nyctalus</i> sp. 3 brown long-eared 2 soprano pipistrelle	- VP1 recorded mostly commuting bats, with some foraging common pipistrelle. - VP2 recorded mostly common pipistrelles, foraging and commuting, and one brown long-eared. - Most bat activity was focused towards the north of the Site, near the tree-lines. - The majority of registrations were from common pipistrelle.
14.07.25 (Figure 5 & 6)	10 8 common pipistrelle 2 common pipistrelle	- VP1 recorded commuting common and soprano pipistrelles. - VP2 recorded a single commuting common pipistrelle. - Most bat activity was focused towards the north of the Site, near the tree-lines, with only a single registration on the transect recorded to the south of the tree-lines. - The majority of registrations were from common pipistrelle.
03.09.25 (Figure 7 & 8)	32 28 common pipistrelle 8 soprano pipistrelle 5 serotine 1 noctule	- VP1 recorded mostly commuting bats with the majority comprising common pipistrelle. Some soprano pipistrelle and serotine were also recorded. - VP2 recorded mostly commuting common and soprano pipistrelles with a single noctule. - Activity was focused along the tree-lines to the north of the Site, with some activity recorded further south too. - The majority of registrations were from common pipistrelle.

Static Monitoring

5.15 Monthly automated surveys from July to October 2025 recorded eleven bat species/groups across six statics and a total of 20,486 registrations:

- Common pipistrelle – 81.44%
- Soprano pipistrelle – 8.79%
- Barbastelle – 4.04%
- Serotine – 2.16%
- Myotis sp. – 1.5%
- Brown long-eared – 0.86%
- *Nyctalus* sp – 0.44%

- Noctule – 0.41%
- Nyctalus / Eptesicus – 0.35%
- Nathusius' pipistrelle – 0.01%
- Leisler's – 0.01%

5.16 Table 15 provides a summary of the automated detector survey results.

5.17 The majority of registrations were from common pipistrelle widespread species, with common pipistrelle consisting of over 80% of total registrations.

5.18 Low numbers of barbastelle registrations were recorded during the static surveys, with numbers usually varying between approximately 10 and 40 registrations on a static. Overall, barbastelle registrations on the automated statics consisted of a total of 4.04% registrations. Peak barbastelle activity was recorded on both statics on the southern boundary in September and October with 379 and 85 registrations respectively and on the October static along the eastern boundary with 203 registrations.

Table 15: Automated Detector Results Summary

Dates	Unit Reference (Figure 1)	Total Registrations	Species & Registration Count	
8 th – 13 th July 2025	A	2586	C pip – 2256 S pip – 177 Sero – 65 BLE – 24	Nyc – 20 Myo – 14 Nyc / Ept – 11 Noc – 6
	B	1183	C pip – 512 S pip – 486 Sero – 101 Nyc / Ept – 37	Noc – 15 Myo – 15 BLE – 11 Nyc – 6
	C	1455	C pip – 1176 S pip – 229 Sero – 15 Myo – 10	BLE – 10 Noc – 9 Nyc – 5 N pip – 1
13 th – 17 th August 2025	A	2560	C pip – 2120 S pip – 286 Myo – 69 Barb – 32	Nyc – 20 BLE – 13 Noc – 11 Sero – 9
	B	888	C pip – 636 S pip – 155 Barb – 28 Nyc – 19	Myo – 18 Sero – 15 Noc – 11 BLE – 6
	C	788	C pip – 600 S pip – 104 Myo – 30 Barb – 18	Noc – 14 BLE – 9 Nyc – 7 Sero – 6
3 rd – 8 th September 2025	A	1016	C pip – 748 Sero – 93 S pip – 92 Barb – 46	Myo – 15 Nyc / Ept – 13 Nyc – 3 Noc – 2
	B	1127	C pip – 1018 S pip – 67 Sero – 11 Barb – 14	BLE – 8 Myo – 7 BLE – 4 Noc – 1 Nyc / Ept – 1
	C	1662	C pip – 1171 Barb – 379 S pip – 44 BLE – 36 Myo – 22	Noc – 5 Nyc / Ept – 2 Sero – 2 Nyc – 1

Dates	Unit Reference (Figure 1)	Total Registrations	Species & Registration Count
October	A	1819	C pip – 1326 Nyc – 9 Barb – 203 Nyc / Ept -7 Sero - 116 Noc – 3 S pip – 83 Lei – 2 BLE – 36 N pip - 1 Myo - 33
	B	1516	C pip – 1399 Sero - 8 Myo – 54 Noc - 6 S pip – 36 BLE – 4 Barb - 9
	C	3886	C pip – 3722 Myo – 20 Barb – 85 BLE – 17 S pip – 41 Sero - 1

6.0 DISCUSSION & RECOMMENDATIONS

- 6.1 Although automated static surveys still need to be completed for April, May and June, this does not rule out the below assessment from being justified. The data we that has been gathered is from within the peak season and has shown a range of species and a consistent level of activity on the Site. The proposals also retain the majority of linear features within the Site and include the enhancement and creation of good foraging habitat for bats. Due to this, it is deemed that there is sufficient data to make an assessment.
- 6.2 The common and widespread bat species and relatively low levels of activity recorded onsite reflect the low value of the habitats for bats at the Site. Most foraging and commuting behaviour was recorded along the hedgerows and tree-lines, which will mostly be retained within the proposals. Activity was greatest along tree-line L2 and L3, towards the east of the Site.
- 6.3 The proposals include the loss of areas of grassland although the acid grassland to the north is to be retained and some of the species-poor grassland to the south is to be retained and enhanced. Hedgerows within the centre of the Site associated with the yard and stables are to be lost, with all other hedgerows to be retained along with most individual trees.
- 6.4 Generally low levels of Barbastelle activity was recorded onsite, with peak activity recorded in autumn along the southern boundary and along the eastern end of the tree-line L2. This low-level activity is likely from individual barbastelle commuting through the Site to better foraging habitats, rather than individuals utilising the Site for foraging. Barbastelle will roam large distances of up to 20km between feeding sites and so they can be regularly picked up.
- 6.5 The small number of registrations recorded from this species are not consistent with the level that would be expected were the Site to provide an important foraging resource or commuting route for barbastelles and therefore not considered to be of importance for Barbastelle bats.
- 6.6 All buildings within the survey area are anticipated to be lost as part of the proposed development. All buildings were assessed to be of negligible suitability for roosting bats except for B5 which was assessed as having low to very low potential to support both day roosting bats. No bats were observed emerging during the nocturnal survey.

Impact Assessment

- 6.7 A single tree that supports a PRF-M (T1), but no bats at the time of survey, has the potential to be impacted by light spill. A sensitive lighting scheme will help to avoid impacts from lighting.
- 6.8 The grassland habitats that are being lost are considered to be low quality habitats for bats, with limited foraging resources and so their loss will have a very limited impact on the bat populations onsite. Some other neutral grassland will be created in the south of the Site, along with SUDS basins, which will continue to provide habitats for invertebrate prey.
- 6.9 The existing tree-lines within the northern half of the Site and some of the boundary hedgerows near the development footprint have the potential to be impacted by light spill from the development which would decrease the suitability of them for bats. Static location A (located on the eastern end of the tree-line) recorded the greatest bat activity of the statics in the summer surveys and had the second highest number of Barbastelle registrations on one static in October. This tree-line is likely a good foraging area for bat species and may provide a good

commuting route through the Site. It is therefore particularly important that this area is retained as a light sensitive corridor for bats.

- 6.10 The southern Site boundary where the highest numbers of barbastelle registrations were recorded, is to be retained within the proposals and will lie within the green-infrastructure on the Site, with species-rich grassland to be created. This will maintain this commuting route and the additional grassland planting and ditch creation along this boundary will provide additional foraging opportunities.

Mitigation

- 6.11 A sensitive lighting strategy will be implemented across the development to minimise impacts on bats and other wildlife. Best practice measures^{4,5} include:
- The avoidance of unnecessary lighting and direct lighting on boundary habitats.
 - Minimising light spill with the use of directional lighting.
 - Restricting the height of light columns to reduce horizontal spill.
 - Installing low wattage LED security lighting on timers on properties close to green infrastructure during construction to avoid future homeowners installing unsuitable lighting for bats.
 - Maintaining light sensitive corridors between roosting and foraging habitats.
- 6.12 Where hedgerows are to be impacted and cut through for the creation of access, 'hop-overs' should be created to help maintain the integrity of the hedgerows as commuting routes for bats.
- 6.13 The habitat creation and enhancement will provide additional foraging opportunities for bats that will provide higher quality resources than those currently provided by the existing arable habitats and species-poor grassland which are considered to be of limited suitability for bats.

Enhancements

- 6.14 The development should seek to provide further roosting opportunities for the local bat population by installing bat boxes on existing mature trees across the Site, as well as incorporating bat tubes into the built fabric of residential dwellings. Bat boxes and bricks should be arranged around the development close to green infrastructure and on different aspects, to facilitate choice of a variety of alternative roost sites.
- 6.15 The inclusion of SuDS within the Site and improved management of woodland strips and hedgerows onsite will provide further foraging opportunities for bat species onsite.

Conclusion

- 6.16 It is considered that development of the Site will result in a negligible to minor beneficial effect on bats. Creation of new species rich grassland, woodland, hedgerows, scrub and tree planting will increase connectivity, commuting routes and foraging within the Site.

⁴ Institute of Lighting Professionals (2021) *Guidance Note 01/21 The Reduction of Obtrusive Light*. ILP, Warwickshire.

⁵ Institute of Lighting Professionals (2023) *Guidance Note 8 Bats and Artificial Lighting*. ILP, Bat Conservation Trust, London.

APPENDIX A: SCREENSHOTS FROM NVA

The following images show a screenshot recorded by each of the Night Vision Aids (NVA's) used taken at the darkest point during the emergence surveys.

Emergence Survey 1: B5 (Stable Building)

Survey Date	Photo
14.07.25	
	
	

Emergence Survey 2: Tree T4

Survey Date	Photo
23.07.25	
	

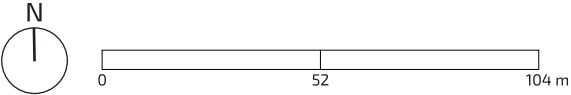
Emergence Survey 3: Tree T4

Survey Date	Photo
18.08.25	
	

FPCR Environment and Design Ltd

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Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

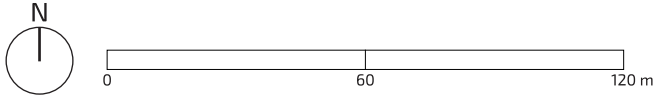
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Key:

- Site Boundary 
- Static Locations 

date		drwn/chkd	
29/10/25		AC/RM	
client			
Gleeson Land Ltd			
project			
Land at Shortland Farm, Ash			
title		scale	
STATIC LOCATIONS PLAN		1:1,800 @ A3	
number		rev	
FIGURE 1		-	



Key

-  Site Boundary
-  Trees with Bat Potential

date		drwn/chkd	
29/10/25		LEB / REM	
client			
Gleeson Land Ltd.			
project			
Land at Shortland Farm, Ash			
title		scale	
Trees with Bat Potential Locations		1:2,800 @ A3	
number		rev	
FIGURE 2		-	



---➡ Flight Paths (Vantage)

Bat Contacts VP1

 Common Pipistrelle

Bat Contacts VP2

 Common Pipistrelle

Vantage Point 1:

Ref	Time	Species	Passes	Comments
	21:20	Common Pipistrelle	1	Commuting
	21:27	Common Pipistrelle	1	Commuting
	21:45	Nyctalus Species/Serotine	1	Commuting
	21:52	Brown Long-eared	1	Commuting
	21:53	Soprano Pipistrelle	2	Foraging
1	21:53	Common Pipistrelle	1	Commuting
	21:57	Common Pipistrelle	1	Commuting
	21:57	Nyctalus Species/Serotine	1	Commuting

Vantage Point 2:

Ref	Time	Species	Passes	Comments
1	21:25	Common Pipistrelle	Cont.	Foraging
2	21:40	Common Pipistrelle	2	Foraging
	21:50	Common Pipistrelle	3	Foraging
	21:51	Brown Long-eared	2	Foraging

date	drwn/chkd
29/10/25	AC / REM

client

Gleeson Land Ltd

project

**Land at Shortland Farm,
Ash**

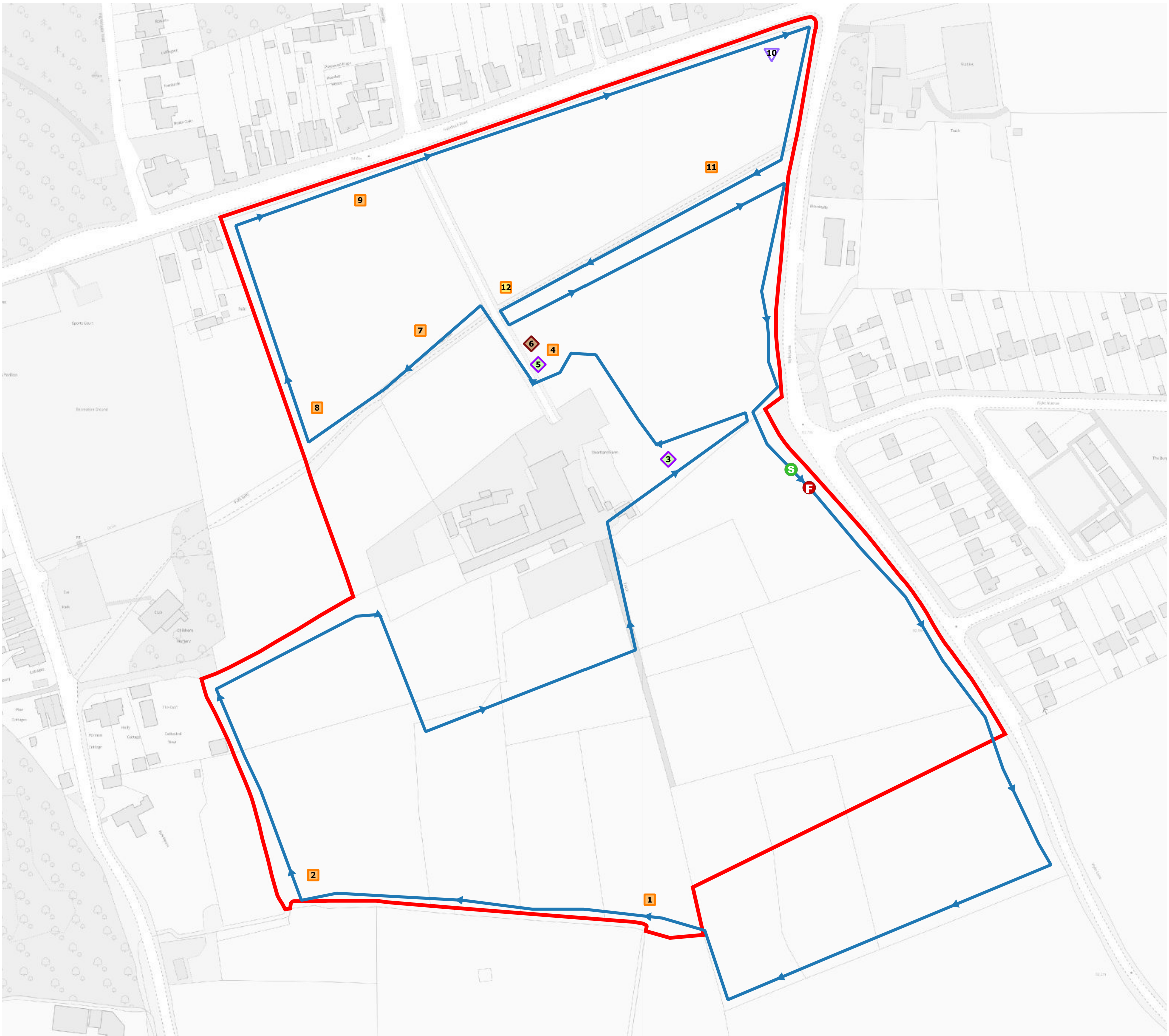
title scale
VANTAGE POINT PLAN - SPRING 1:1,694 @ A3

number

rev

FIGURE 3

—



Key:

- Start Point
- Finish Point
- Transect Route Altered
- Bat Contacts
 - Brown Long-eared
 - Common Pipistrelle
 - Nyctalus Species
 - Nyctalus Species/Serotine
 - Soprano Pipistrelle

Ref	Time	Species	Passes	Comments
1	22:17	Common Pipistrelle	1	Foraging
2	22:20	Common Pipistrelle	3	Foraging
3	22:34	Nyctalus Species/Serotine	1	Foraging
4	22:37	Common Pipistrelle	Cont.	Foraging
5	22:37	Nyctalus Species/Serotine	2	Foraging
6	22:38	Brown Long-eared	1	Foraging
7	22:41	Common Pipistrelle	Cont.	Foraging
8	22:47	Common Pipistrelle	Cont.	Foraging
9	22:51	Common Pipistrelle	1	Foraging
10	22:58	Nyctalus Species	1	Foraging
11	23:06	Common Pipistrelle	3	Foraging
12	22:03	Soprano Pipistrelle	1	Foraging

date	29/10/25	drwn/chkd	AC/RM
client	Gleeson Land Ltd		
project	Land at Shortland Farm, Ash		
title	BAT TRANSECT PLAN - SPRING	scale	1:1,792 @ A3
number	FIGURE 4	rev	-



Key:

 Surveyor Locations (Vantage)

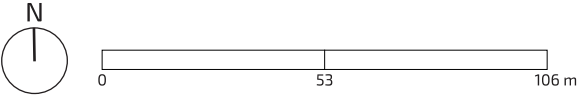
VP1 Bat Contacts:

Ref	Time	Species	Passes	Comments
	21:32	Soprano Pipistrelle	2	Commuting
	21:47	Soprano Pipistrelle	2	Commuting
	22:10	Common Pipistrelle	2	Commuting

VP2 Bat Contacts:

Ref	Time	Species	Passes	Comments
NULL	22:01	Common Pipistrelle	1	Commuting

date	29/10/25	drwn/chkd	AC/RM
client	Gleeson Land Ltd		
project	Land at Shortland Farm, Ash		
title	VANTAGE POINT PLAN - SUMMER	scale	1:1,643 @ A3
number	FIGURE 5	rev	-



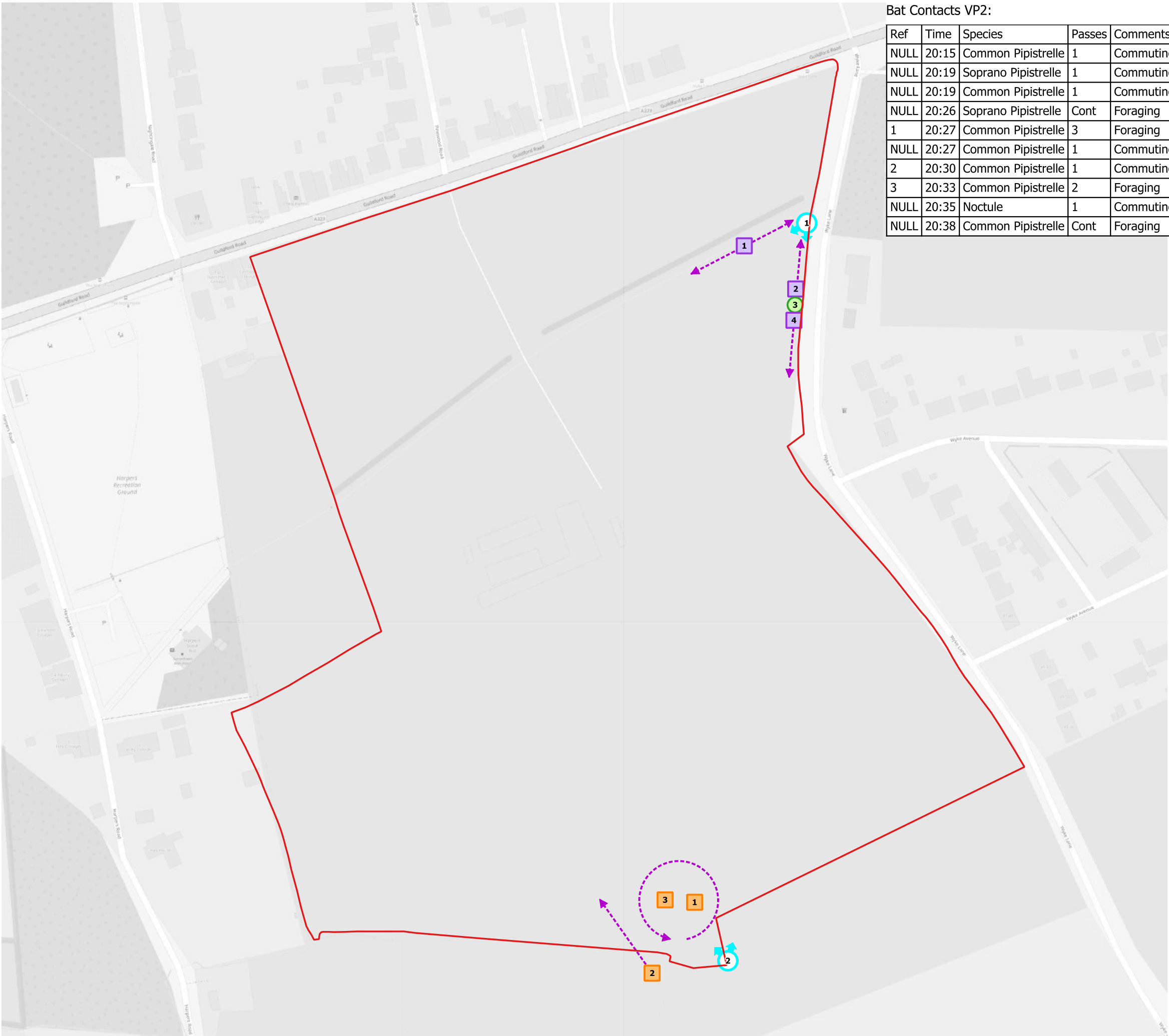
Key:

Transect

- S Start Point
- F Finish Point
- Transect Route
- Flight Paths
- Bat Contacts
- 1 Common Pipistrelle

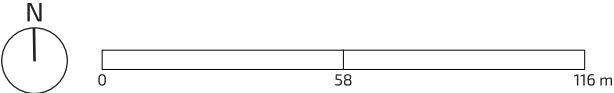
Ref	Time	Species	Passes	Comments
1	22:19	Common Pipistrelle	Cont	Foraging
2	22:25	Common Pipistrelle	Cont	Foraging
3	22:28	Common Pipistrelle	2	Foraging
4	22:39	Common Pipistrelle	2	Foraging
5	22:45	Common Pipistrelle	Cont	Foraging
6	23:06	Common Pipistrelle	3	Foraging

date	29/10/25	drwn/chkd	AC/RM
client	Gleeson Land Ltd		
project	Land at Shortland Farm, Ash		
title	BAT TRANSECT PLAN - SUMMER	scale	1:1,800 @ A3
number	FIGURE 6	rev	-



Bat Contacts VP2:

Ref	Time	Species	Passes	Comments
NULL	20:15	Common Pipistrelle	1	Commuting
NULL	20:19	Soprano Pipistrelle	1	Commuting
NULL	20:19	Common Pipistrelle	1	Commuting
NULL	20:26	Soprano Pipistrelle	Cont	Foraging
1	20:27	Common Pipistrelle	3	Foraging
NULL	20:27	Common Pipistrelle	1	Commuting
2	20:30	Common Pipistrelle	1	Commuting
3	20:33	Common Pipistrelle	2	Foraging
NULL	20:35	Noctule	1	Commuting
NULL	20:38	Common Pipistrelle	Cont	Foraging



Key:

-  Surveyor Locations
 -  Flight Paths
 -  Serotine
 -  Soprano Pipistrelle
 -  Common Pipistrelle
- Bat Contacts VP1
- Bat Contacts VP2

Ref	Time	Species	Passes	Comments
	19:48	Common Pipistrelle	1	Commuting
	19:54	Common Pipistrelle	1	Commuting
	19:59	Common Pipistrelle	1	Commuting
	20:05	Serotine	1	Commuting
	20:05	Serotine	1	Commuting
	20:05	Common Pipistrelle	1	Commuting
	20:07	Common Pipistrelle	1	Commuting
	20:09	Serotine	Cont	Foraging
1	20:12	Soprano Pipistrelle	Cont	Foraging
	20:12	Common Pipistrelle	2	Commuting
	20:14	Common Pipistrelle	2	Commuting
2	20:15	Soprano Pipistrelle	1	Commuting
3	20:17	Serotine	Cont	Foraging
	20:21	Common Pipistrelle	2	Commuting
4	20:24	Soprano Pipistrelle	1	Commuting
	20:25	Common Pipistrelle	Cont	Foraging
	20:29	Serotine	2	Commuting
	20:32	Common Pipistrelle	Cont	Foraging
	20:36	Soprano Pipistrelle	1	Commuting
	20:37	Common Pipistrelle	3	Foraging
	20:42	Soprano Pipistrelle	3	Foraging
	20:43	Common Pipistrelle	3	Foraging

date

29/10/25

drwn/chkd

AC/RM

client

Gleeson Land Ltd

project

Land at Shortland Farm, Ash

title

VANTAGE POINT PLAN - AUTUMN

scale

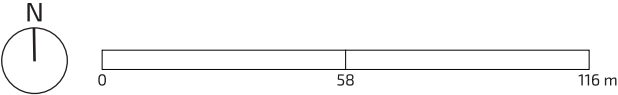
1:1,817 @ A3

number

FIGURE 7

rev

-



Key:

- S Start Point
- F Finish Point
- Transect Route
- Common Pipistrelle
- Soprano Pipistrelle

Ref	Time	Species	Passes	Comments
1	20:50	Common Pipistrelle	Cont	Foraging
2	21:00	Common Pipistrelle	Cont	Foraging
3	21:01	Soprano Pipistrelle	1	Commuting
4	21:01	Common Pipistrelle	1	Commuting
5	21:09	Common Pipistrelle	2	Foraging
6	21:20	Common Pipistrelle	3	Foraging
7	21:27	Common Pipistrelle	2	Foraging
8	21:35	Common Pipistrelle	1	Commuting
9	21:40	Common Pipistrelle	1	Commuting
10	21:57	Common Pipistrelle	1	Commuting

date	29/10/25	drwn/chkd	AC/RM
client	Gleeson Land Ltd	project	Land at Shortland Farm, Ash
title	BAT TRANSECT PLAN - AUTUMN	scale	1:1,800 @ A3
number	FIGURE 8	rev	-

FPCR | environment
& design



Appendix E: Breeding Bird Survey Report

Client

Gleeson Land

Project

Land at Shortland Farm

Ash

Date

October 2025

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3.0 LEGISLATION & STATUS 4

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6.0 DISCUSSION 10

7.0 CONCLUSION 12

FIGURES

Figure 1: Breeding Bird Survey Results Plan – Distribution of Notable Species

APPENDICES

Appendix A: Breeding Bird Survey Results & Categorisation of Breeding Status

Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	LEB / 19.09.25	APD / 09.10.25
-	Final	LEB / 19.09.25	APD / 09.10.25
Rev A	Final	REM / 29.10.25	N/A Minor

1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
- Six Breeding Bird Surveys were conducted on behalf of Gleeson Land Ltd. for Land at Shortland Farm (Central OS grid reference: SU 90642 51034). The Site comprises horse grazed grasslands with associated hedgerows, treelines and a dry stream along the Southern Site boundary. - Breeding bird surveys were conducted broadly following the bird survey guidelines between May and July 2025. Surveys covered all the habitats within the Site.
Ecological Baseline
- Thames Basin Heaths SPA designated site is located 335m North from the Site and is recognised for national importance for breeding birds including nightjar, woodlark and Dartford warbler. - A total of 28 bird species were recorded during the breeding surveys within the Site, of which 14 were considered 'notable' species. The species assemblage is typical of the habitats onsite, with generalists and hedgerow specialists being the main species recorded.
Assessment of Impacts
- The Site proposals include the loss of a large proportion of the low value modified grassland within the Site boundary to facilitate the creation of residential units, roads and associated infrastructure, and areas of greenspace. Few birds were recorded utilising this habitat, so its loss is not expected to have a significant effect on the bird populations present onsite or locally. - The Site offers limited opportunities for qualifying species of the Thames Basin Heaths designated site, so no effects are anticipated on its designated status. - The inclusion of extensive green infrastructure and SuDS features in the scheme design, in addition to the provision of gardens, will provide additional habitats for the range of common and widespread generalist and woodland edge species recorded, particularly as these habitats mature. - The proposals include a residential development that will likely lead to an increase in the population of domestic cats in the locality, leading to a possible increased risk of cat predation.
Recommended Mitigation, Compensation and Enhancement
- An SPA buffer zone comprising species rich grassland and new hedgerows is to be created in the Northern parcel to mitigate negative effects of the development on Thames Basin Heaths. This should be seeded with a range of native seed and fruit bearing species to provide additional foraging opportunities. The planting of mixed scrub and hedgerows can include a range of thorny species to provide dense thickets to offer sheltering opportunities for birds from cat predation. - SuDS will be designed with a varied bed profile to provide suitable condition for a range of wetland plants to establish. They will also be designed to hold a degree of water throughout the winter, providing opportunities for wetland birds to colonise the Site. - The provision of nest boxes and nest bricks within the development will encourage urban and generalist bird species to colonise.

2.0 INTRODUCTION

- 2.1 This Breeding Bird Report has been prepared by FPCR Environment and Design Ltd to accompany an application for outline planning permission for the redevelopment of Land at Shortland Farm, Guildford Road, Ash, Guildford (herein referred to as 'the Site'). The application is submitted on behalf of Gleeson Land.
- 2.2 This document should be read in conjunction with the Ecological Impact Assessment (FPCR, October 2025).

Site Context

- 2.3 The application Site is approximately 10.18 ha and is located West of Guildford in Surrey (Central OS Grid Ref: SU 90646 51040). The Site is predominantly comprised of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site which includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 2.4 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Site Proposals

- 2.5 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:
- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
 - green and blue infrastructure; and
 - associated service and utility structures
- 2.6 The northern parcel of the Site lies within the 400m exclusion zone associated with the Thames Basin Heath and so no dwellings are proposed within this area.

Report Aims & Objectives

- 2.7 This report has been prepared to achieve the following objectives:
- Describe the survey methodologies employed to inform this assessment;
 - Identify the presence, species and distribution of breeding birds within or in the vicinity of the Site;
 - Evaluate the conservation importance of habitats within the Site to local bird populations and identify any areas of ornithological interest;
 - Identify and describe potentially significant ecological effects associated with the proposals on breeding birds; and

- Make recommendations to minimize the potential impact of development and to consider opportunities for additional mitigation, compensation and enhancement where relevant.

3.0 LEGISLATION & STATUS

Legislation

- 3.1 The Wildlife and Countryside Act 1981 (as amended)¹ (WCA) is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law, and it is an offence, with certain exceptions, to recklessly or intentionally:
- Kill, injure or take any wild bird.
 - Take, damage, or destroy the nest of any wild bird while in use or being built; or
 - Take or destroy the egg of any wild bird.
- 3.2 Additional protection is afforded to species listed on Schedule 1 of the WCA, whereby intentional disturbance whilst building or occupying a nest or disturbance of dependent young is also considered an offence.
- 3.3 Certain species have also been identified as Species of Principal Importance (SPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006². The S.41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Status

- 3.4 In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern³ (BoCC) in the UK:
- 3.5 Red list (high conservation concern) species meet at least one of the following criteria:
- They are globally threatened according to IUCN criteria;
 - Their population has declined rapidly (50% or more) in recent years;
 - They that have declined historically and not shown a substantial recent recovery; and/or
- 3.6 Amber list (medium conservation concern) species are those that meet at least one of the following criteria:
- They have an unfavourable conservation status in Europe;
 - Their population or range has declined moderately (between 25% and 49%) in recent years;
 - Their population has declined historically but made a substantial recent recovery;
 - They are rare breeders; and/or
 - They have internationally important or localised populations.
- 3.7 Green list (low conservation concern) species fulfil none of the above criteria.

¹ Wildlife and Countryside Act 1981 (as amended). London: HMSO. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/1981/69>

² Natural Environment and Rural Communities Act 2006. London: HMSO. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/2006/16/>

³ Stanbury, A.J. et al. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 747.

4.0 METHODOLOGY

Desktop Study

- 4.1 To compile existing baseline ornithological information, statutory and non-statutory organisations were consulted for data regarding designated sites for which birds are a designating feature and protected/notable bird records. These included Surrey Biological Information Centre (SBIC). Full details on the methodology for the desk study are provided in the accompanying EclA report.

Field Survey

- 4.2 The survey methodology employed was in accordance with the protocol specified within current best practice guidelines⁴. All birds encountered (seen or heard) were recorded on a field survey plan using standard BTO species codes and symbols for bird activities and to denote activity, sex, and age where appropriate.
- 4.3 Breeding status was inferred for each species based on the sixteen categories implemented by the European Ornithological Atlas Committee (EOAC)⁵ and their corresponding definitions, in addition to four additional codes to classify non-breeding species as birds recorded away from suitable breeding habitat, summering non-breeders, passage migrants, or flyovers. Birds were considered to be holding a territory and therefore likely to be utilising the Site for breeding activities if they were displaying breeding behaviours, such as: singing, nest building, food carrying or territorial defence. If birds did not display such behaviours, e.g. they were only recorded flying over the Site, they were considered non-breeders. These criteria and associated definitions are outlined in Appendix A.
- 4.4 A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and watercourses, and other features such as ponds and scrub. To provide inter-survey temporal variation between surveys to account for variation in species' detectability throughout the day, the starting location and direction of walking were stratified across the six surveys.
- 4.5 A total of six surveys were undertaken, spanning the season in which the majority of breeding activity occurs for typical species, and no species with vastly differing breeding cycles are reasonably expected to occur at the Site following the consultation results and assessment of the habitats present. To provide a proportionate level of accuracy in the determination of the population status of breeding birds in the survey area, dawn survey visits were undertaken in mid-May, early June, late June and mid-July, and a single dusk survey was completed in early July 2025, commencing an hour prior to sunset and finishing an hour after sunset.
- 4.6 The dusk survey was undertaken during failing light and continued into darkness to account for temporal variations in species' detectability being timed to coincide with peak activity of likely crepuscular and/or nocturnal species and identify important roost sites should any be present.

⁴ Bird Survey & Assessment Steering Group 2023. *Bird Survey Guidelines for Assessing Ecological impacts* v.1.1.1. Available at: <https://birdsurveyguidelines.org> [Accessed: 10.12.24]

⁵ Sharrock, J.T.R (1973) Ornithological Atlases. *Auspicium* 5:13-15.

- 4.7 Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or persistent strong wind (conditions which can negatively affect the results). *Table 1* provides details of the survey dates and weather conditions.

Table 1: Survey Dates & Conditions

Survey	Date	Cloud Cover (%)	Rain	Wind (Beaufort)	Visibility
1	15.05.25	100	0	1-2	Good
2	04.06.25	40	0	1	Very Good
3	13.06.25	0	0	2-3	Good
4	27.06.25	70	0	1	Very Good
5 (Dusk)	08.07.25	30	0	2	Very Good
6	16.07.25	30	0	1	Very Good

Habitat Suitability

- 4.8 The habitats onsite, particularly those closest to the Thames Basin Heaths SPA, were assessed to determine their suitability for any qualifying SPA species that may utilise nearby habitat for foraging, roosting or breeding.
- 4.9 No suitable habitat for nightjar or Dartford warbler was found onsite. There is low potential for woodlark to utilise the habitats onsite, however this is considered unlikely due to the proximity of good quality heathland habitat in Thames Basin Heaths and the low-quality habitat located onsite.

Limitations

- 4.10 It is considered that there were no limitations to the surveys which could pose constraints subsequent assessment of data.

5.0 RESULTS

Desk Study

- 5.1 The locations of designated sites and notable bird species records identified through the desktop study search area has been presented in *Figure 1*.

Designated Sites

- 5.2 One designated statutory site cited for its ornithological interest was identified within the desk study. A summary of the bird species and assemblages included within the designated site citation is provided in *Table 2* below. A full description of all designated sites within the search area is provided within the full EcIA report.

Table 2: Desktop Study Results – Designated Sites Cited for Ornithological Interest

Site Name	Distance from Site at Closest Point	Description
Thames Basin Heaths SPA	335m North	Classified under Article 4.1 of EC Directive 79/409 on the Conservation of Wild Birds (the Birds Directive) as it is regularly used by 1% or more of the Great Britain populations of the following species listed in Annex 1 in any season: Nightjar <i>Caprimulgus europaeus</i> ; 7.8% Great Britain population, Woodlark <i>Lullula arborea</i> ; 9.9% Great Britain population, Dartford Warbler <i>Sylvia undata</i> ; 27.8% Great Britain population.

Protected / Notable Species

- 5.3 No records of notable species were returned from within the Site boundary.
- 5.4 Eighty-four records of 29 notable species were returned within 1km of the Site boundary. Records of those species that are protected by law are detailed in *Table 3*.

Table 3: Desktop Study Results – Notable Bird Species Within 1km of Site Boundary

Species	Relevant Legislation	Distance from Site of Closest Record	Description
Cuckoo <i>Cuculus canorus</i>	NERC S41	1km North	Most records are from Thames Basin Heaths. Mpst recently recorded on 21/05/15.
Skylark <i>Alauda arvensis</i>	NERC S41	120m South-East	Recorded in a field across Wyke Lane from the Site, most recently recorded on 18.05.16.
Tree Pipit <i>Anthus trivialis</i>	NERC S41	875m North	Recorded in Thames Basin Heaths on 06/04/15
Woodlark <i>Lullula arborea</i>	NERC S41	980m North	All records are from Thames Basin Heaths. Most recently recorded on 01/05/16.

- 5.5 Several of the notable species for which records were returned are considered unlikely to breed at the Site, as there is little to no suitable habitat. This includes heathland species such as Dartford warbler and hen harrier, or the species that are only winter migrants to the region, such as the redwing and fieldfare.

Field Survey

5.6 A total of 28 bird species were recorded within the survey area during the six survey occasions (for complete list see Appendix A). Of these, 14 appear on one or more of the following and are hereafter referred to as 'notable species':

- Schedule 1 of WCA;
- BoCC Red or Amber lists;
- Section 41 of the NERC Act 2006; and / or
- Local Biodiversity Action Plan

5.7 The notable species recorded during surveys are summarised in *Table 4* with their respective distributions illustrated in *Figure 2*.

5.8 Four species were confirmed as breeding onsite. Of these, three were notable, but all are widespread and common across the UK.

Table 4: Notable Breeding Species Recorded

Species	Legal / Conservation Status	Peak Count / No. of Survey Visits	EOAC Site Breeding Status
Swift <i>Apus apus</i>	Red List	5 / 3	Non-Breeder – UH
Woodpigeon <i>Columba palumbus</i>	Amber List	14 / 6	Confirmed – FL
Stock Dove <i>Columba oenas</i>	Amber List	12 / 2	Possible – H
Red Kite <i>Milvus milvus</i>	Green List WCA Sch.1	1 / 1	Non-Breeder – UH
Rook <i>Corvus frugilegus</i>	Amber List	3 / 1	Non-Breeder – UH
Whitethroat <i>Curruca communis</i>	Amber List	2 / 4	Possible – H,S
Wren <i>Troglodytes troglodytes</i>	Amber List	8 / 5	Confirmed – FL
Starling <i>Sturnus vulgaris</i>	Red List NERC S.41	75 / 3	Non-Breeder – UH
Song Thrush <i>Turdus philomelos</i>	Amber List NERC S.41	1 / 4	Possible – H
Mistle Thrush <i>Turdus viscivorus</i>	Red List	1 / 1	Non-Breeder – UH
House Sparrow <i>Passer domesticus</i>	Red List NERC S.41	1 + 2 colonies / 3	Possible – H
Dunnock <i>Prunella modularis</i>	Amber List NERC S.41	7 / 5	Confirmed – FL
Greenfinch <i>Chloris chloris</i>	Red list	1 / 1	Possible – H
Linnet <i>Linaria cannabina</i>	Red List NERC S.41	3 / 1	Possible – H

Breeding Bird Assemblage Description

5.9 The majority of bird species recorded are typical of the habitats present onsite, the majority being generalists and hedgerow specialists. The actively horse grazed grassland supports a fairly limited assemblage of birds which utilise the field interiors for foraging. This included

various corvid and goose species and low numbers of notable generalists including song thrush and mistle thrush.

- 5.10 The hedgerows and treelines provided suitable breeding and foraging habitat for the range of common and widespread generalist and hedgerow species recorded including robin, blackbird and the range of common tit and finch species recorded. This assemblage also included a range of notable, but also common and widespread species that are typical of the habitats present including whitethroat, wren and dunnock.
- 5.11 A limited urban bird assemblage including notable species was also recorded in the South-East and central areas of the Site, utilising field interiors for foraging and nest material resources. Moderate numbers of house sparrow and starling were recorded carrying food items and nest material offsite to nearby residential environs. Juvenile starlings were observed foraging in field interiors during the July surveys. Low numbers of swift and a single swallow were recorded foraging above the field interiors and possibly breeding on nearby residential buildings.

6.0 DISCUSSION

- 6.1 The proposals will result in the loss of much of the modified grassland from the Site; however hedgerows and treelines will largely be retained. The neutral grassland in the Northern parcel will mostly be retained as an SPA buffer. Some trees and hedgerows will be lost to facilitate the creation of access roads in the Northern parcel.
- 6.2 The Site will include some habitat creation measures as part of the proposed green infrastructure. This will include new tree and hedgerow planting across the Site, residential gardens and SuDS attenuation features in the Southern areas of the Site.
- 6.3 The following section provides an assessment of the potential impacts of the proposals upon breeding bird assemblages within and in the vicinity of the Site. The evaluation has been informed by the most recent indicative layout.

Designated Sites

- 6.4 Habitats surrounding designated sites can provide a habitat resource that is used at certain times by its qualifying bird populations and/or populations of species within its qualifying assemblage(s), e.g. foraging and roosting; this is commonly termed Functionally Linked Land (FLL). The Site is 335m from designated site Thames Basin Heaths SPA.
- 6.5 It is not expected that the qualifying species for Thames Basin Heaths will utilise habitats at the Site, as they are of low quality and will offer few foraging or roosting opportunities for these heathland specialist species. During the surveys no qualifying bird species from the surrounding designated sites were recording using the Site.

Impact Assessment

- 6.6 The following potential impacts to the recorded bird populations and assemblage may result from the proposals:
- Direct loss/change of habitat, including habitat fragmentation
 - Disturbance during construction and/or operation

Habitat Loss

- 6.7 Grassland habitat will be lost, but this habitat was of limited suitability for the majority of species recorded utilising the Site. Grassland habitats within the areas of GI will be retained and enhanced with additional species and improved management to help create a more varied structure and an increase invertebrate prey items. The majority of hedgerows and tree-lines are to be retained, with only some minor losses required near the yard and stables. This will result in minor losses of breeding habitat for the generalist assemblage recorded, however these will not be significant due to the small-scale losses proposed.
- 6.8 The green infrastructure includes additional mixed scrub, tree and shrub planting with attenuation features, which will provide good habitat for the assemblage of common and widespread generalist, woodland edge and urban species recorded on the Site. Many of these species will also utilise garden habitats as they mature, which will provide further opportunities in the long-term.

- 6.9 The decrease in grassland habitat will have a negligible impact on the bird population utilising the Site as it does not provide significant foraging opportunities owing to its lack of mosaic and prey items. The enhancement of retained grassland and addition of more mixed scrub will benefit a range of the generalist bird species including starling, stock dove and song thrush.

Disturbance

- 6.10 Construction operations have the potential to disturb birds using the development area for breeding, roosting, and foraging. Operations likely to disturb breeding birds include noise and displacement during vegetation clearance, initial ground works and some construction activities. During the breeding season disturbance may lead to nest desertion or the avoidance of the area and reduce the suitability of retained nesting areas, such as the retained hedgerows and treelines.

Mitigation**Disturbance**

- 6.11 To avoid disturbance to breeding birds, ground clearance works and vegetation will be undertaken prior to the bird-breeding season (March to August, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. If active nests are found, vegetation will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided prior to undertaking the clearance. This would be a statutory requirement due to the protection of all nesting birds and their nests under the Wildlife and Countryside Act, 1981. A suitably qualified ecologist would supervise this.

Compensation**Habitat Loss**

- 6.12 To compensate for the loss of ornamental hedges around the stable buildings, new hedgerows should be planted within and around the development footprint to provide alternative habitat and to maintain connectivity.

Enhancements

- 6.13 Additional planting will be incorporated into the Sites GI which would provide additional foraging and breeding habitat for a range of bird species. Priority should be given to the provision of native, fruit bearing species of local origin to provide an optimal foraging resource for a range of bird species including the thrush and finch species recorded.
- 6.14 Attenuation features will be designed where possible to encourage a varied bed profile to allow marginal vegetation to establish where this does not affect the drainage capacity of the features, species mix includes common reed *Phragmites australis* and great reedmace *Typha latifolia*. This will provide improved nesting opportunities for the goose species known to use the Site for foraging, as well as encouraging new wetland and reedbed species to the Site.
- 6.15 The proposals will include the integration of nest boxes into buildings and installation on trees. This will include 100 swift bricks and 50 house martin cups on houses and a mix of 25 boxes for passerines on trees. The box specifications will be included within the site Landscape Environment Management Plan.

7.0 CONCLUSION

- 7.1 The suite of breeding bird surveys identified a range of bird assemblages within and in the vicinity of the Site. The impacts on these were assessed against the proposals for the development.
- 7.2 Surveys have demonstrated that the Site supports a range of common and widespread bird species typical of the habitats present onsite, including an assemblage of generalist and hedgerow species and urban specialists.
- 7.3 The proposals will result in the loss of grassland habitat and some small hedgerow losses, resulting in minor reductions in suitable breeding habitat for the generalist/woodland edge assemblage recorded. However, new hedgerow planting and the creation and enhancement of species-rich grassland will more than adequately compensate for this.

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1.0 APPENDIX A: BREEDING BIRD SURVEY RESULTS & CATEGORISATION OF BREEDING STATUS

Table 1: Surveyors and Conditions

Survey	Surveyor	Date	Cloud (%)	Rain	Wind	Temperature	Visibility
1	REM	15.05.25	100	0	1-2	8	Good
2	OMS	04.06.25	40	0	1	14	Very Good
3	DLS	13.06.25	0	0	2-3	13	Good
4	DLS	27.06.25	70	0	1	14	Very Good
5 - Dusk	OMS	08.07.25	30	0	2	19	Very Good
6	OMS	15.07.25	30	0	1	14	Very Good

Table 2: Surveyors Results

Species: British Common Name	Species: Latin name	Survey 1	Survey 2	Survey 3	Survey 4	Survey 5	Survey 6	Conservation Status & Protection	Breeding status ¹
Canada Goose	<i>Branta canadensis</i>	5	-	-	-	-	-	Not Listed	Non-breeder - UH
Egyptian Goose	<i>Alopochen aegyptiaca</i>	-	6	8	6	-	3	Not Listed	Non-breeder - UH
Swift	<i>Apus apus</i>	5	-	3	3	-	-	Red List	Non-breeder - F
Stock Dove	<i>Columba oenas</i>	-	-	12	8	-	-	Amber List	Possible - H
Woodpigeon	<i>Columba palumbus</i>	2	8	14	7 + 2 Juveniles	2	3	Amber List	Confirmed - FL
Red Kite	<i>Milvus milvus</i>	-	-	-	-	-	1	Green List WCA Sch.1	Non-breeder - UH
Magpie	<i>Pica pica</i>	2	4	6	5	-	10	Green List	Possible - H
Jackdaw	<i>Coloeus monedula</i>	13	5	1 Colony	3	-	21	Green List	Non-breeder - UH
Rook	<i>Corvus frugilegus</i>	-	-	3	-	-	-	Amber List	Non-breeder - UH
Carrion Crow	<i>Corvus corone</i>	1	1	-	5	-	1	Green List	Non-breeder - UH
Blue Tit	<i>Cyanistes caeruleus</i>	1	4	3	9	-	-	Green List	Probable - A
Great Tit	<i>Parus major</i>	-	1	1	1	-	-	Green List	Possible - H
Swallow	<i>Hirundo rustica</i>	-	-	-	1	-	-	Green List	Non-breeder - F
Whitethroat	<i>Curruca communis</i>	2	1	2	1	-	-	Amber List	Possible - H,S

¹European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

Species: British Common Name	Species: Latin name	Survey 1	Survey 2	Survey 3	Survey 4	Survey 5	Survey 6	Conservation Status & Protection	Breeding status ¹
Wren	<i>Troglodytes troglodytes</i>	4	6 + 2 Juveniles	3	8	-	1	Amber List	Confirmed - FL
Nuthatch	<i>Sitta europaea</i>	-	-	1	1	-	-	Green List	Possible – H,S
Starling	<i>Sturnus vulgaris</i>	-	7	50	75	-	-	Red List NERC S.41	Non- breeder - UH
Song Thrush	<i>Turdus philomelos</i>	-	-	1	1	1	1	Amber List NERC S.41	Possible - H
Mistle Thrush	<i>Turdus viscivorus</i>	-	-	-	1	-	-	Red List	Non- breeder - UH
Blackbird	<i>Turdus merula</i>	4	1	2	8	-	2	Green List	Probable - P
Robin	<i>Erithacus rubecula</i>	3	-	3 + 1 Juvenile	7 + 1 Juvenile	4	4	Green List	Confirmed - FL
House Sparrow	<i>Passer domesticus</i>	-	1 Colony	1 + 1 Colony	1 + 2 Colonies	-	-	Red List NERC S.41	Possible - H
Dunnock	<i>Prunella modularis</i>	3	3 + 2 Juveniles	3	7	-	2 + 1 Juvenile	Amber List NERC S.41	Confirmed - FL
Pied Wagtail	<i>Motacilla alba</i>	-	-	-	1	-	-	Green List	Non- breeder - UH
Chaffinch	<i>Fringilla coelebs</i>	2	1	1	2	-	-	Green List	Possible – H,S
Greenfinch	<i>Chloris chloris</i>	-	-	-	1	-	-	Red List	Possible – H,S
Linnet	<i>Linaria cannabina</i>	-	-	-	3	-	-	Red List NERC S.41	Possible - H
Goldfinch	<i>Carduelis carduelis</i>	2	2	2	2	-	-	Green List	Possible – H,S
Total No. Species		14	15	20	25	3	11	Overall Total: 28	

Breeding Status evidence can be broken down into four sections, each with their own codes, as defined by the European Ornithological Atlas Committee:

Confirmed breeder

DD – distraction display or injury feigning

UN – used nest or eggshells found from this season

FL – recently fledged young or downy young

ON – adults entering or leaving nest-site in circumstances indicating occupied nest

FF – adult carrying faecal sac or food for young

NE – nest containing eggs

NY – nest with young seen or heard

Probable breeder - Evidence accumulated during the survey indicates that the bird species is breeding on site.

P – pair in suitable nesting habitat

T – permanent territory (defended over at least 2 survey occasions)

D – courtship and display

N – visiting probable nest site

A – agitated behaviour

I – brood patch of incubating bird (from bird in hand)

B – nest building or excavating nest-hole

Possible breeder - Evidence accumulated during the survey indicates that the bird species could be breeding on site, but the evidence is less conclusive than that obtained for probable breeders.

H – observed in suitable nesting habitat

S – singing male

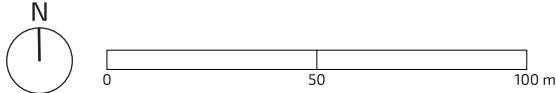
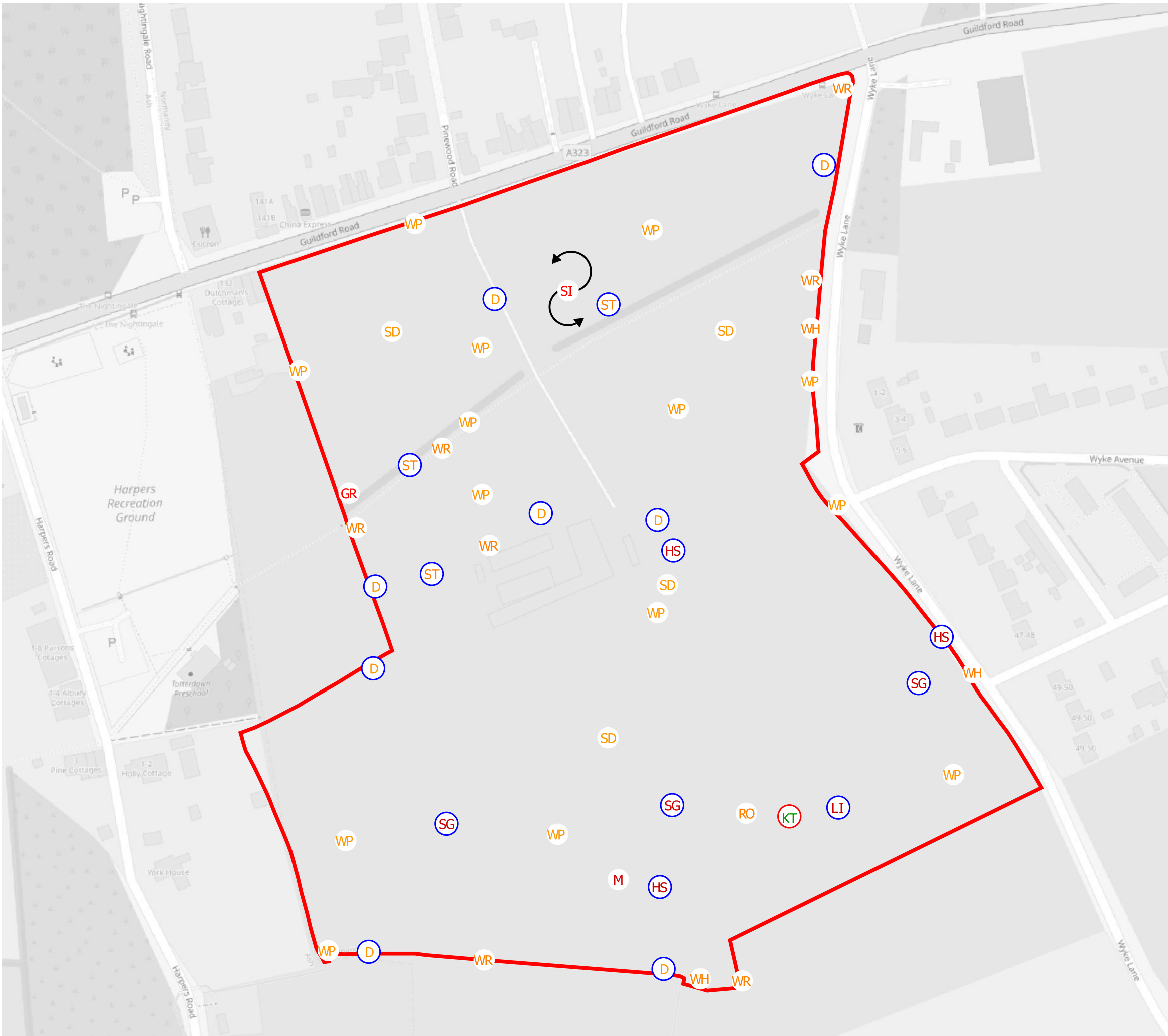
Non-breeder

F – flying over

M – migrant

U – summering non-breeder

UH – observed in unsuitable nesting habitats



- Key**
- House Sparrow **HS**
 - Linnet **LI**
 - Mistle Thrush **M**
 - Starling **SG**
 - Greenfinch **GR**
 - Swift **SI**
 - Dunnock **D**
 - Stock Dove **SD**
 - Whitethroat **WH**
 - Rook **RO**
 - Song Thrush **ST**
 - Woodpigeon **WP**
 - Wren **WR**
 - Red Kite **KT**
 - Fly over **→**
 - NERC Species of Principal Importance **(blue circle)**
 - Schedule 1 Species **(red circle)**

date	29/10/25	drwn/chkd	LEB / REM
client	Gleeson Land Ltd.		
project	Land at Shortland Farm, Ash		
title	BREEDING BIRD SURVEY RESULTS PLAN - DISTRIBUTION OF NOTABLE SPECIES	scale	1:1,800 @ A3
number	FIGURE 1	rev	-

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& design



Appendix F: Reptile Survey Report

Client

Gleeson Land

Project

Land at Shortland Farm

Ash

Date

October 2025

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Figure 1: Location of Reptile Refugia and Reptile Records

Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	MB / 22.09.25	APD / 09.10.25
-	Final	MB / 22.09.25	APD / 09.10.25
Rev A	Final	REM / 29/10/25	N/A Minor

1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
- FPCR were commissioned by Gleeson Land to undertake reptile surveys at Land at Shortland Farm, to provide an ecological baseline for the application Site and determine presence or likely absence of reptiles. - Proposals include an outline planning application for up to 200 units with associated access, infrastructure and greenspace. - Presence/absence reptile surveys were undertaken between May and October 2025 in accordance with good practice guidelines. In total, 7 survey occasions were completed.
Survey Results
- The Site is dominated by horse grazed modified grassland and is bordered by treelines and hedgerows. An area of neutral grassland and patched of scrub are present onsite which provided suitable commuting habitat for reptiles. - A low population of slow worm and a have been identified onsite.
Impact Assessment
- The proposals will retain the majority of suitable habitat for reptiles; however losses of some hedgerows and grassland will occur. - The loss of modified is not considered to pose a constraint as these areas are of very limited suitability for reptiles. - The proposals include some habitat creation measures including the planting of new hedgerows.
Recommended Mitigation, Compensation and Enhancement
- Vegetation clearance operations will be undertaken following a precautionary working method statement that will detail passive displacement measures that will allow reptiles to escape from working areas and find refuge in retained habitats. - In addition to generous green infrastructure proposals that will benefit reptiles in the long-term, additional habitat creation measures will be employed. During the creation of new grassland habitats, a range of tussock-forming grass species will be included, and log piles will be installed from areas of vegetation removal.

2.0 INTRODUCTION

- 2.1 This Reptile Report has been prepared by FPCR Environment and Design Ltd to accompany an application for outline planning permission for the redevelopment of Land at Shortland Farm, Guildford Road, Ash, Guildford (herein referred to as 'the Site'). The application is submitted on behalf of Gleeson Land.
- 2.2 This document should be read in conjunction with the Ecological Impact Assessment (FPCR, October 2025).

Site Location Context

- 2.3 The application Site is approximately 10.18 ha and is located West of Guildford in Surrey (Central OS Grid Ref: SU 90646 51040). The Site is predominantly comprised of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site which includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 2.4 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Site Proposals

- 2.5 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:
- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
 - green and blue infrastructure; and
 - associated service and utility structures
- 2.6 The northern parcel of the Site lies within the 400m exclusion zone associated with the Thames Basin Heath and so no dwellings are proposed within this area.

Report Aims and Objectives

- 2.7 The report has been prepared to achieve the following objectives:
- Summarise the survey and assessment methodologies employed in order to assess the importance of the Site for reptile species
 - Provide the desk study records of reptiles within a 1km radius of the Site
 - Provide the results of reptile surveys undertaken
 - Assess the likelihood of reptiles being present onsite and a population size estimate
 - Provide recommendations for avoidance, mitigation, compensation and/or enhancement to mitigate impacts of the proposals on reptiles

3.0 LEGISLATION

3.1 All widespread reptile species, including slow-worm *Anguis fragilis*, adder *Vipera berus*, common lizard *Zootoca vivipara* and grass snake *Natrix helvetica* are partially protected under Sections 9(1) and 9(5) of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation protects these animals from:

- Intentional killing and injury;
- selling, offering for sale, possessing, or transporting for the purpose of sale or publishing advertisements to buy or sell a protected species.

3.2 The impact that this legislation has on the Planning system is outlined in ODPM 06/2005 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, this states:

'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult English Nature [now Natural England] before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned.'

3.3 This partial protection does not directly protect the habitat of these reptile species. Where these animals are present on land that is to be affected by development, the implications of legislation are that providing that killing can reasonably be avoided then an operation is legal. Guidance provided by Natural England and the Amphibian and Reptile Groups of the UK recommends that this should be achieved by ensuring that:

- the animals are protected from injury or killing;
- mitigation is provided to maintain the conservation status of the species; and
- population monitoring is carried out subsequent to operations.

3.4 Reptiles native to the UK are also classified as a species of principle importance under the Natural Environment and Rural Communities Act 2006 (NERC).

4.0 METHODOLOGY

Desk Study

4.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:

- SBIC (Surrey Biodiversity Information Centre)
- Multi Agency Geographic Information for the Countryside (MAGIC)

4.2 Further inspection of colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

Reptile Presence/Likely Absence Surveys

4.3 The survey methodology was based on that detailed in the Herpetofauna Workers Manual and the Froglife Advice Sheet 10 – Reptile Survey. Methods involved a search for basking reptiles on/under naturally occurring and strategically positioned artificial refugia. The artificial refugia used were 0.5m² sections of bitumen roofing felt with a black upper side. The locations of artificial refugia deployed during the survey are provided in *Figure 1*.

4.4 In line with guidance, refugia were installed at a minimum density of five refugia per hectare of suitable habitat (a greater density than this was used to further increase the likelihood of detection).

4.5 Fifty-six artificial refugia were placed on 20 May 2025, then left to 'bed in' for approximately two weeks following placement. Each survey was undertaken in accordance with guidelines as follows:

- At temperatures of between 9°C – 18°C
- On sunny/cloudy days with little or no wind
- Before 11:00 hours and after 16:00 hours
- Approaching refugia from downwind and avoiding casting a shadow and with care so as to not disturb basking animals during checks;
- Lifting and replacing tins, to check for the presence of reptiles' underneath, in hot weather is undertaken with care, to avoid potential harm to any animals' underneath.

4.6 Seven reptile presence/absence surveys were completed in line with current survey methodology. Table 1 provides the dates and weather conditions of the surveys and Figure 1 provides the locations of the refugia.

Timings and Conditions

Table 1: Reptile Survey Dates and Weather Conditions

Survey Occasion	Date	AM or PM Survey	Weather Conditions
1	28.05.25	AM	Temperature 15 °C. Dry. Cloud cover 70-80%. Wind Beaufort 2-3.
2	04.06.25	AM	Temperature 16 °C. Dry. Cloud cover 20%. Wind Beaufort 1.
3	12.06.25	AM	Temperature 20 °C. Dry. Cloud cover 20%. Wind Beaufort 2.
4	08.09.25	AM	Temperature 15°C. Cloud cover 10-20%. Wind Beaufort 3. Bright, clear, sunny.
5	17.09.25	AM	Temperature 16°C. Cloud cover 90%. Wind Beaufort 3. Rain earlier in the day.
6	23.09.25	AM	Temperature 12 °C. Dry. Cloud cover 10-20%. Wind Beaufort 1. Bright and sunny.
7	29.09.25	AM	Temperature 14 °C. Dry. Cloud cover 30-40%. Wind Beaufort 1-2. Clear, bright and sunny.

Population Assessment

- 4.7 Reptile populations were assessed in accordance with the Key Reptile Site Register criteria. This system classifies populations of individual reptile species into three population categories according to importance (*Table 2*). These categories are based on the peak number of adults observed during individual surveys.

Table 2: Key Reptile Site Survey Assessment Categories (HGBI 1998)

Species	Low Population 1 (No. of individuals)	Good Population 2 (No. of individuals)	Exceptional Population 3 (No. of individuals)
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 - 10	>10
Slow worm	<5	5 - 20	>20

- 4.8 To qualify for the Key Reptile Sites register, the site in question must meet at least one of the following criteria:
- Supports three or more species
 - Supports two snake species
 - Supports an exceptional population of one species (see *Table 2*)
 - Supports an assemblage of species scoring at least 4 (see *Table 2*)
 - Does not satisfy the above four points but is of particular regional importance due to local rarity (for example e.g. adders are very rare in the East Midlands of England, therefore even 'low' populations should be designated as Key Sites).

Limitations

- 4.9 It is considered that there were no limitations to the surveys which could pose constraints subsequent assessment of data.

5.0 RESULTS

Desktop Study

- 5.1 Consultation with SBIC identified four reptile records within 1km of the Site. No records of reptiles onsite were found. Desk study records of reptiles are summarised in *Table 3*, with details of other desk study records provided in the accompanying EClA report.

Table 3: Summary of Desktop Study Reptile Records.

Species	Location	Date of Most Recent Record	Description
Adder <i>Vipera berus</i>	560m North	2017	Recorded on Thames Basin Heath by Surrey Wildlife Trust.
Slow-worm <i>Anguis fragilis</i>	730m West	2020	Recorded on residential land in Ash Green.

Habitat Suitability Assessment

- 5.2 The site mostly consists of horse-grazed modified grassland which offers very limited suitability for reptiles. The site is surrounded by treelines and hedgerows and features small patches of scrub mainly in the north which may offer degree of suitability as commuting habitat for reptile species.

Field Surveys

- 5.3 Locations of reptile refugia are provided in *Figure 1* while the results of reptile surveys are summarised in *Table 4*.
- 5.4 Reptile presence/absence surveys undertaken at the site have identified the presence of a low population of slow worms. However, the incidental sighting of two additional slow worms occurred on an unrelated visit to site.
- 5.5 In accordance with *Table 2* and associated Key Reptile Sites criteria, surveys have concluded that this site does not qualify as a Key Reptile Site.
- 5.6 *Figure 1* shows that the majority of reptile sightings occurred alongside the treeline and dry stream at the southern boundary and alongside the treeline bordering the north-east of the site.

Table 4: Summary of Reptile Survey Results

Survey	Date	Survey Results	Peak Count (Adults)	Other Species Recorded
1	28.05.25	2 juvenile slow worms	-	-
2	04.06.25	-	-	-
3	12.06.25	1 adult male slow worm	1	-
4	08.09.25	1 adult male slow worm	1	-
5	17.09.25	1 adult female slow worm, 1 adult male slow worm	2	-
6	23.09.25	1 adult female slow worm	1	-
7	29.09.25	-	-	-

6.0 DISCUSSION

- 6.1 The proposals will result mostly in the loss of grazed modified grassland with the majority of the site's treelines and hedgerows being retained. The neutral grassland in the north of the site will also be retained as an SPA buffer. Some trees will be removed in the northern parcel to facilitate the creation of access roads
- 6.2 The Site will include some habitat creation measures of benefit to reptiles as part of the proposed green infrastructure. This will include the suitable management of retained and enhanced grassland and planting of new hedgerows.
- 6.3 The following section provides an assessment of the potential impacts of the proposals upon reptiles.

Impact Assessment

- 6.4 Surveys have identified that the Site supports a low population of slow worm. When assessed against the criteria in *Table 2*, the populations identified onsite fall short of the threshold for a Key Reptile Site.
- 6.5 Site proposals will result in the loss of modified grassland across the site as well of some trees and hedgerow in the northern parcel. In the absence of mitigation, Site clearance works have the potential to result in the killing or injury of reptiles which, because of the protection afforded to them, will need to be avoided. The loss of the grazed modified grassland, however, is considered extremely unlikely to impact reptile populations given the limited suitability they offer to this species group.
- 6.6 To ensure the development is completed in accordance with the requirements of the Wildlife & Countryside Act 1981 (as amended) and the requirements of the NERC Act (2006), appropriate mitigation measures will be adopted as outlined in the following section.

Mitigation

Passive Displacement

- 6.7 As only a low population of slow worm is located onsite, a passive displacement exercise is considered appropriate and proportionate mitigation, with the management for reptiles to be specified within a LEMP or HMMP document. The areas of grassland to be retained and enhanced in the northern and southern parcels will provide suitable habitat for reptiles and therefore compensatory habitat is not required. Following completion of the proposals, the favourable conservation status of slow worm onsite will be maintained.
- 6.8 In order to avoid breaching legislation protecting reptile species, a passive displacement exercise will be undertaken during the clearance of areas of grassland. These habitats are not expected to support many reptiles and are well connected to the suitable grassland parcels which will be retained and protected to allow reptiles to find refuge during construction.
- 6.9 The passive displacement exercise will include the following measures to minimise the risk of harm to any undetected reptiles:
- Clearance should be carried out in two stages: initially cutting vegetation to approximately 15 cm height, followed by a 24–48 hour pause before completing clearance to ground level. This allows any reptiles present to move away voluntarily.

- Works should be scheduled during the reptile active season, ideally in mid-summer (July–August), when reptiles are most mobile and able to relocate safely.
- Vegetation should be cleared directionally, moving towards retained or enhanced habitat areas to encourage natural dispersal.
- An ecologist will be available on-call during clearance to provide guidance if reptiles are encountered.

Enhancements

- 6.10 Species-rich grassland will be created to the south-west of the development footprint through the sowing of a native species-rich grassland seed mix or appropriate green hay and will be subjected to a sympathetic management. This will comprise a number of tussock forming grass species that will provide areas of optimal foraging habitats for invertebrates, providing a good source of food for reptiles, especially slow-worms and common lizards, and for small mammals providing a food source for grass snakes.
- 6.11 Log piles should also be installed around retained grasslands to provide hibernation habitat for reptiles.

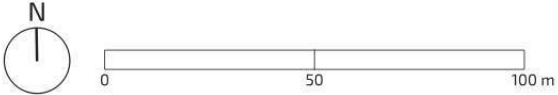
7.0 CONCLUSION

- 7.1 Survey has demonstrated that the Site supports a low population of slow worm.
- 7.2 The proposals will result in the loss of grassland habitats which were of low suitability for reptiles. The areas of more suitable reptile habitat onsite are to be retained or enhanced as part of the proposed GI and SPA buffer.
- 7.3 Passive displacement is recommended to ensure that legislation protecting reptiles is not breached during development.
- 7.4 New tussocky species-rich grassland will be created which will provide suitable habitat for reptiles.
- 7.5 The proposals will therefore in a positive impact on local reptile populations.

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- Site Boundary
- Slow Worm
- Refugia Locations

date	29/10/25	drwn/chkd	LEB / REM
client	Gleeson Land Ltd.		
project	Land at Shortland Farm, Ash		
title	REPTILE SURVEY PLAN	scale	1:1,800 @ A3
number	FIGURE 1	rev	-

See separate Excel sheet

FPCR | environment
& design



Appendix G – Biodiversity Net Gain Report

Client

Gleeson Land

Project

**Land at Shortlands Farm,
Ash**

Date

October 2025

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FIGURES

Figure 1: Baseline Habitat Plan

Figure 2: Baseline Habitat Condition/Distinctiveness Plan

Figure 3: Proposed Habitat Plan

Figure 4: Proposed Habitat Condition/Distinctiveness Plan

Figure 5: Habitat Retention Plan

APPENDICES

Appendix A: Baseline Condition Assessment Results

Appendix B: River Condition Assessment Results

Appendix C: Proposed Condition Assessment Results

Appendix D: Biodiversity Net Gain Metric

Rev	Issue Status	Prepared/Date	Approved/Date
-	Final	REM / 22.10.25	JNHW / 23.10.25
-	Final	REM / 29.10.25	N/A Minor

1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
FPCR were commissioned by Gleeson Land to undertake a Biodiversity Net Gain (BNG) assessment at Shortland Farm, Ash to provide a baseline biodiversity score for the Site and compare this to proposals. Site proposals comprise development of the Site for up to 200 residential units along with associated access, infrastructure and green-space. This assessment has been informed by a survey of the habitats present onsite, including condition assessments, undertaken on 4th June 2025.
Baseline
The Site is dominated by grassland habitats, with varying levels of management and species composition. Other habitats include small areas of bramble scrub and a large area of unmanaged ruderal vegetation. Developed land is present in the form of the yard and stables. Native hedgerows make up the majority of the Site boundaries, whilst further non-native hedgerow planting are situated within the yard area. A line of trees also crosses the Site from east to west. The Site supports watercourse running along the southern boundary.
Proposals
The proposals for the Site include 200 new dwellings with associated access and gardens. Green infrastructure proposals include the retention and enhancement of the existing grassland and creation of new species rich grasslands. Due to the small areas of scrub being lost, some new mixed scrub will be created. Other habitats include formal and informal amenity grassland areas, flowering road verges and tree planting. Non-native hedgerows within the centre of the Site will be lost by the proposals, and compensatory planting will be provided through the provision of a new species-rich native hedgerow.
Conclusion
The Site will result in a 8.56% loss in habitat units, a 146.14% gain in hedgerow units and a 36.16% gain in watercourse units. The proposals fall short of Guildford Borough Council requirements of 20% net gain due to an overall loss of habitat units. The proposals will therefore seek to deliver a sufficient quantity of offsite habitat units in order to demonstrate the required BNG.

2.0 INTRODUCTION

- 2.1 The following Biodiversity Net Gain (BNG) Report has been prepared by FPCR Environment and Design Ltd on behalf of Gleeson Land to support an outline planning application for the development of Land at Shortlands Farm, Ash (Central OS Grid Ref: SU 90642 51034) herein referred to as 'the Site'.
- 2.2 This report accompanies an Ecological Impact Assessment (EclA) for the Site which has been undertaken to inform the development proposals and to provide recommendations for mitigation and enhancement. This report should therefore be read in conjunction with this accompanying EclA report (FPCR, 2025).

Site Location and Context

- 2.3 The application Site is approximately 10.18 ha and is located West of Guildford in Surrey (Central OS Grid Ref: SU 90646 51040). The Site is predominantly comprised of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site which includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 2.4 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Site Proposals

- 2.5 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:
- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
 - green and blue infrastructure; and
 - associated service and utility structures

Report Scope and Objectives

- 2.6 This Biodiversity Net Gain Report is based on the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance. The scope and objectives of this report are to:
- Summarise the results of the baseline UKHab Survey undertaken on the Site and to present the results of habitat condition assessment surveys following the Defra Statutory Biodiversity Metric Technical Guidance.
 - Provide an overview of the proposed habitats following completion of the scheme.
 - Present the results of the Statutory Biodiversity Metric assessment completed for the proposals.

- Demonstrate the capacity for the proposals to demonstrate a net gain in biodiversity through the Statutory biodiversity Metric.
- Provide recommendations for the proposals to maximise their biodiversity potential.

3.0 LEGISLATION AND POLICY

The Environment Act 2021

- 3.1 In England, biodiversity net gain is required under statutory frameworks introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021). Under this framework, the majority of planning permission grants will be deemed to have been granted subject to a general biodiversity gain condition. This will require an objective for developments to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of all on-site habitats.
- 3.2 This is a pre-commencement condition requiring the provision of a Biodiversity Gain Plan to be submitted and approved before works can be commenced, but after planning permission has been granted.
- 3.3 In principle, the grant of planning permission is not within the scope of BNG, however it is important to consider as part of the consenting body's decision-making process how a scheme will be able to demonstrate BNG after permission is granted. Therefore, this biodiversity net gain report presents the results of a Biodiversity Net Gain assessment that has been completed in order to demonstrate how the proposals can be compliant with the requirements of the Environment Act.

Biodiversity Net Gain Hierarchy

- 3.4 The statutory framework allows for the 10% biodiversity gain to be delivered through on-site biodiversity gains, registered off-site biodiversity gains or statutory biodiversity credits. However, as set out in Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015, development must consider the biodiversity net gain hierarchy when designing scheme proposals. This sets out hierarchy of actions as follows:
- a) First, for all medium, high and very high distinctiveness habitats, the avoidance of any adverse effects.
 - b) Where these can't be avoided, mitigating any adverse effects on medium, high and very high distinctiveness habitats.
 - c) Then, for all on-site habitats (including low distinctiveness), adverse effects should be compensated by in accordance with the following hierarchy:
 - Prioritising the enhancement of existing habitats; then
 - Creation of on-site habitats;
 - Allocation of registered off-site unit gains; then
 - Purchase of biodiversity credits
- 3.5 Proposals must demonstrate how the biodiversity hierarchy has been applied to or provide the reasons for any deviation. This biodiversity net gain hierarchy is distinct from the mitigation hierarchy set out by CIEEM which is addressed in the accompanying Ecological Impact Assessment (FPCR, 2025) where relevant.

National Planning Policy Framework

- 3.6 The National Planning Policy Framework (NPPF) 2024 seeks to ensure that the planning system contributes to and enhances the natural and local environment, protect and enhance biodiversity and geodiversity by:

"187. d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

192. b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

Local Policy

- 3.7 Guildford Borough Council have a mandatory requirement of 20% net gain for development within the borough, unless they are exempt from BNG¹.

Mandatory Biodiversity Net Gain Minimum Reporting Requirements

- 3.8 The Government's BNG Planning Practice Guidance (PPG)² sets out the minimum requirements of any planning application subject to mandatory BNG to present as part of any submission in order to validate the application. For ease of reference, the minimum information required has been set out in Table 1 below.
- 3.9 Additional detail and information appropriate to the application is provided within this report in order to assist Guildford Borough Council in their decision-making process and to provide confidence that the scheme will be able to demonstrate a mandatory BNG through the provision of a Biodiversity Gain Plan following receipt of planning permission, in accordance with the PPG.

¹ Guildford Borough Council (2024), Biodiversity Net Gain. Available at: [Biodiversity Net Gain - Guildford Borough Council](#)

² Gov.uk (2024), Biodiversity Net Gain. Available at: Biodiversity net gain - GOV.UK

Table 1: Checklist of Minimum BNG Reporting Requirements for Planning Application Validation

Minimum Requirements in BNG PPG	Statement of Relevance to Site
<i>Confirmation that the Site is believed to be subject to the mandatory BNG condition.</i>	The Site does not meet any of the exemption criteria and so it is understood that the site will be subject to the mandatory BNG condition.
<i>The pre-development biodiversity value of the Site, either on the data of application or an earlier proposed date (as appropriate).</i>	The accompanying Statutory Metric completed for the scheme provides the pre-development biodiversity value of the Site. The values are also presented within this report.
<i>Where an earlier date is proposed, provide the reasons for proposing that date.</i>	The 'relevant date' is proposed to be the latest date that a Site survey was completed during which observations were made to check if any significant changes in habitats had occurred. For the Site, this will be 4 June 2025. This is considered to be an appropriate date as it is within the date that ecological data is considered valid (two years, as recommended by CIEEM).
<i>The completed metric calculation showing the calculations of the pre-development biodiversity value of the on-site habitat on the data of application (or proposed earlier date) including the publication date of the biodiversity metric used.</i>	The Statutory Biodiversity Metric, published in August 2024, was used to calculate the pre-development value of the Site. The completed metric has been provided alongside this BNG report.
<i>A statement whether activities have been carried out prior to the date of application (or proposed date), that result in loss of on-site biodiversity value (degradation).</i>	This statement confirms that FPCR and Gleeson Land not aware of any habitat degradation on-site.
<i>A description of any irreplaceable habitat (as set out in column 1 of the Schedule to the Biodiversity gain Requirements (Irreplaceable Habitat) Regulations 2024) on the Site, that exists on the date of application (or an earlier proposed date)</i>	This statement confirms that no irreplaceable habitat has been identified on-site.
<i>Plan(s), drawn to an identified scale and showing the direction of North, showing on-site habitat existing on the date of application (or earlier proposed date) including any irreplaceable habitat (if applicable).</i>	Figure 1 shows the baseline habitats present on-site on the proposed relevant date (4 June 2025). This includes the minimum requirement to show an identified scale and north arrow.

4.0 METHODOLOGY

Baseline Habitat Assessment

- 4.1 A baseline habitat survey was completed broadly following the UK Habitat Classification System and the Statutory Biodiversity Metric Condition Assessment Criteria. This involved a systematic walkover of the Site to map all habitats present for the purposes of completing the Statutory Biodiversity metric Calculation Tool and their current condition.
- 4.2 A habitat survey was conducted on 4th June 2025. Survey methods broadly followed the UK Habitat Classification System³ (UKHab) to map habitats present onsite. This involved a systematic walk over of the Site to classify the broad habitat types which were broadly mapped in the field using a detailed topography map produced for the scheme using Qfield as appropriate.
- 4.3 Habitat condition assessment surveys were completed on 4th June 2025 in accordance with the Statutory Biodiversity Metric Habitat Condition Assessments. The summary results of the habitat condition assessment survey results are presented in this report.
- 4.4 A River Condition Assessment Survey was undertaken following the Professional MoRPh Professional methodology as requirement by the Statutory Biodiversity Net Gain Metric. This includes both the MoRPh field survey and the RCA desk study elements in order to assess the condition of rivers present onsite. The survey was completed by a trained and accredited MoRPh Professional surveyor on 12th June 2025.
- 4.5 Further details of the survey methodologies employed to assess the ecological baseline for the Site are provided in the accompanying Ecological Impact Assessment (FPCR, 2025).

Biodiversity Net Gain Calculation

- 4.6 Defra's Statutory Biodiversity Metric calculation tool was used to inform this BNG Report. It is an MS Excel spreadsheet that is used to quantify the predicted net-change in biodiversity value ("biodiversity units") of a proposed development site before and after development. It treats the area-based habitats and linear features such as hedgerows and lines of trees separately, and is based on pre-determined values, along with published written guidance set by a Natural England-led team of experts.
- 4.7 The development Site was surveyed and mapped, as described above. The survey results were digitised using QGIS, with the existing habitats identified and areas automatically generated.
- 4.8 On-Site post-development habitats were determined from the latest Illustrative Landscape Masterplan by Cornus (CLPD 259 P01-1) with proposed habitats mapped and digitised using QGIS to generate areas for each of the habitats proposed for enhancement.
- 4.9 These pre- and post-enhancement habitat areas were then inputted into the Statutory Biodiversity Metric Calculation tool. The metric automatically assigns habitat distinctiveness score for each of the baseline and proposed habitats.
- 4.10 The metric then assigns a range of pre-assigned factors to each of the proposed habitats. These have been advised by subject knowledge experts and are universal multipliers generated by the

³ Butcher, B., Edmonds, B., Norton, L., & Treweek, J. (n.d.). The UK Habitats Classification System V2. UKHab. Available at: <https://ukhab.org/>

metric itself for the following variables relevant to habitat creation, enhancement or restoration proposals:

- difficulty of creating or restoring/enhancing a habitat: This pre-assigned score is based on how difficult a particular habitat type is to create or restore/enhance
- temporal risk: this is the 'time to target condition' for any particular habitat and determines how long a particular habitat type is likely to take to reach the condition score that the desired condition score assigned to it.
- spatial risk: this score is based on the distance between the site of habitat loss and any habitats creation or enhancement proposals at any off-site offsetting solutions.

4.11 The strategic significance multiplier within the metric has been informed by a desk study review. Full details of the desktop study undertaken are provide in the accompanying Ecological Impact Assessment.

4.12 Full details of the calculation methodology are provided in The Statutory Biodiversity Metric User Guide.

5.0 RESULTS

Strategic Significance

- 5.1 In the absence of Local Nature Recovery Network Strategies, national and local guidance has been consulted to assign strategic significance. This has included Guildford Borough Councils Planning Advisory Note: Strategic Significance and the Statutory Biodiversity Metric User Guide. Key consideration has included the location of nearby Biodiversity opportunity areas. All habitats in the baseline and proposed scenarios have been assigned low strategic significance.
- 5.2 When the Local Nature Recovery Network Strategies come into force, the other lowland acid grassland onsite would need to be assigned high strategic significance within the proposals due to the Site falling within the potential measure area of "GSH1.1 Create or restore lowland heath and acid grassland".

Biodiversity Units

Habitats

- 5.3 A summary description and baseline conditions of the baseline habitats is provided in *Table 1* below and an illustration is provided in *Figure 1 and 2*.
- 5.4 Baseline condition assessment scores are provided in *Appendix A*.

Table 1: Baseline Habitats Summary

Ref	Habitat	Condition	Distinctiveness	Description
G1 & G2,	Other lowland acid grassland	Poor	Medium	The two most northern field compartments comprised of acidic grassland. Both fields are grazed by horses resulting in a uniform, short sward height and over 5% cover of bare ground. The swards are species-poor with species including common bent <i>Agrostis capillaris</i> , Yorkshire fog <i>Holcus lanatus</i> , squirrel-tail fescue <i>Vulpia bromoides</i> and occasional perennial rye grass <i>Lolium perenne</i> and with forbs including sheep sorrel <i>Rumex acetosella</i> , common century <i>centaurea erythraea</i> and cats-ear <i>Hypochaeris radicata</i> . Due to the limited indicator species diversity, this grassland did not qualify for lowland acid grassland habitat.
G7 & G8	Other neutral grassland	Poor	Medium	Two compartments of rough grassland are present to the south of the stables. The swards are generally species poor with rough-meadow grass <i>Poa trivialis</i> , Yorkshire fog and cock's-foot <i>Dactylis glomerata</i> frequent to occasional. Creeping thistle <i>Cirsium arvensis</i> and broadleaved dock <i>Rumex obtusifolius</i> are both frequent throughout. Both compartments are grazed by horses, maintaining a short sward.
G3 & G5	Modified grassland	Poor	Low	Horse grazed, species poor grasslands with a high abundance of perennial rye grass in the sward along with soft-brome <i>Bromus hordeaceus</i> and Yorkshire fog.
G4 & G6	Modified grassland	Moderate	Low	These grassland compartments were more species-rich than G3 and G5 but was still horse grazed. The sward included perennial rye grass, meadow foxtail <i>Alopecurus pratensis</i> , Yorkshire fog and false oat grass <i>Arrhenatherum elatius</i> .
B1 – B8	Bramble scrub	N/A	Medium	Some small areas of bramble <i>Rubus fruticosus</i> scrub are scattered throughout the Site.
TF1 & TF2	Tall forbs	Poor	Low	Two areas of tall forbs, dominated by bracken <i>Pteridium aquilinum</i> , are present along the northern boundary of the Site.

Ref	Habitat	Condition	Distinctiveness	Description
R1	Ruderal vegetation	Poor	Low	An area of ruderal vegetation consisting of a variety of species including non-natives. Species included frequent Yorkshire-fog, abundant broad-leaved dock, occasional creeping cinquefoil <i>potentilla reptans</i> , poppy <i>Papaver rhoeas</i> and nipplewort <i>Lapsana communis</i> with at least 20 other herbs recorded as rare.
I1 – I31	Individual Trees	1 Poor, 16 Moderate, 13 Good	Medium	The majority of trees were located along the northern boundary of the Site, associated with the stands of bracken. The trees were a variety of sizes and condition with the majority being native species.

Hedgerows

5.5 The Site supports a total of eleven hedgerows and three tree lines, with the descriptions and conditions found in Table 2.

Table 2: Baseline Hedgerow Summary

Ref	Hedgerow Type	Condition	Distinctiveness	Description
L1	Line of trees	Moderate	Medium	Dominated by pedunculate oak <i>Quercus robur</i> with abundant bramble and frequent hawthorn <i>Crataegus Monogyna</i> . Ground flora included rough-meadow grass <i>Poa trivialis</i> , dandelion <i>taraxacum officinale</i> and cock's-foot. Some trees were showing signs of damage and poor health.
L2	Line of trees	Moderate	Medium	As L1, dominated by pedunculate oak with the same species composition and condition.
L3	Line of trees	Moderate	Medium	Frequent Pedunculate oak and hawthorn with occasional holly <i>Ilex aquifolium</i> . Some trees were showing signs of poor health.
H1	Native hedgerow	Poor	Low	Dominated by bramble with locally frequent blackthorn <i>Prunus spinosa</i> . This hedgerow is smaller than 1.5m in height and shows sign of nutrient enrichment.
H2	Native hedgerow with trees	Poor	Medium	Hedgerow including blackthorn, hawthorn, elder <i>Sambucus nigra</i> and elm <i>Ulmus procera</i> with a number of mature pedunculate oak trees. The hedgerow shows signs of damage and nutrient enrichment.
H3	Native hedgerow	Moderate	Low	Hedgerow with species including ash <i>Fraxinus excelsior</i> , hazel <i>Corylus avellana</i> , field maple <i>Acer campstre</i> and pedunculate oak. Dog rose <i>Rosa canina</i> and honeysuckle <i>Lonicera periclymeum</i> were also present. A gappy hedgerow with signs of nutrient enrichment.
H4	Non-native and ornamental hedgerow	Poor	V.Low	Hedgerow on residential boundary comprising Leylandii <i>Cupressus x Leylandii</i> .
H5	Native hedgerow	Moderate	Low	Hedgerow with hawthorn, pedunculate oak, holly and bramble. Showing signs of damage and nutrient enrichment.
H7 - H11	Non-native and ornamental hedgerow	Poor	V.Low	Hedgerows within the yard consisting of Leylandii.
H6	Native hedgerow	Moderate	Low	Hedgerow on the western Site boundary including damson <i>Prunus insititia</i> , hawthorn, elder and pedunculate oak. A non-gappy hedgerow with nutrient enrichment and disturbed ground.

Watercourses

- 5.6 The stream along the southern boundary remains dry through spring to autumn and possibly through to winter. In total, 210m of this stream runs along the red line boundary of the Site and so a single sub-reach was surveyed. The stream has an average width of 1m. The bank tops are dominated by horse grazed grassland, with the bank faces having a steep slope and being dominated by short and tall grasses. No aquatic plants were present as the stream was dry, with a substantial amount of organic debris including leaves and twigs. The results of the River Condition Assessment survey are provided in Appendix B.

6.0 PROPOSALS

- 6.1 Proposed habitats are shown on *Figure 3 and 4*, while proposed habitat retention is shown on *Figure 5*. The proposals are summarised below, with broad creation, enhancement and management methods outlined in Table 3, as subject to detailed design. The proposed condition assessments are provided in Appendix C and the full BNG metric is provided in Appendix D.
- 6.2 At this outline design stage, planting plans and detailed habitat creation and ongoing management measures have not yet been fixed. Therefore, a number of assumptions regarding proposed habitat types and condition have been made during this assessment. Individual habitat type and condition targets are outlined within this section and have been informed by the Illustrative Landscape Masterplan CLPD 259 P01 and ecological professional judgement.

Habitats

Habitat Retention

- 6.3 Habitats proposed for retention include:
- The majority of trees apart from T4, T5, T6, T25, T26 T28, T29 and T30.

Habitat Enhancement

- 6.4 Proposed habitat enhancement includes:
- Other lowland acid grassland, G1 and G2, will be enhanced from poor to moderate condition.
 - Modified grassland parcel G3 will be enhanced from poor to good condition.
 - Modified grassland parcel G4 will be enhanced from moderate to good condition.

Habitat Creation

- 6.5 Proposed habitat creation includes:
- Mixed scrub, S1, in moderate condition will be created along the western boundary.
 - Mixed scrub, S2, in poor condition will be created along the northern boundary.
 - Modified grassland, GX, in poor condition will be created within the centre of the Site in association with the LEAP.
 - Modified grassland GX, in moderate condition will be created within the centre of the Site, around the LEAP areas.
 - Other neutral grassland in moderate condition will be created to the south of the development footprint and around the north and west edges.

- Other lowland acid grassland will be created in moderate condition within the northern area where the access track in the baseline differs from the proposed access onto the Site.
- Individual trees will be planted throughout the Site with native trees in moderate condition and non-native trees in poor condition. This includes fruit tree planting within grassland G3.
- Developed land; sealed surface will be created in the form of the built environment and roads.
- Vegetated gardens will be created in association with the residential dwellings (in a ratio of 30:70, respectively).

Table 3: Outline Habitat Creation, Enhancement and Management Proposals

Ref	Habitat	Description	Condition	Distinctiveness
N/A	Individual trees	Retained individual trees will be managed long-term to promote tree health.	Poor, Moderate and Good	Medium
Enhancement and management				
G1 & G2	Other lowland acid grassland	The grassland will be enhanced through management on an informal basis to encourage a diverse sward height and monitoring and management of scrub and bracken encroachment. Additional seeding may be required if seed does not take.	Moderate	High
G3 & G4	Modified Grassland	These areas will be enhanced from poor and moderate condition by improving the management regime and overseeding with a flowering lawn mix. The grasslands will be managed on an informal basis to encourage a more diverse sward throughout. Where any excessive areas of bare ground establish or signs of damage are observed, reseeding will be undertaken. Scrub and bracken encroachment will be monitored and managed.	Good	Low
Creation and management				
GX	Modified Grassland	These areas will be created using a flowering lawn seed mix. The grassland will be mown regularly due to its nature as a formal amenity space. Where any excessive areas of bare ground establish or signs of damage are observed, reseeding will be undertaken.	Poor	Low
GX	Modified Grassland	These areas will be created using a flowering lawn seed mix and will be managed on an informal basis to encourage a more diverse sward throughout. Where any excessive areas of bare ground establish or signs of damage are observed, reseeding will be undertaken.	Moderate	Low
GX	Other neutral grassland	This grassland will be created by removing the topsoil and seeding the area with a suitable seed mix (such as one of Emorsgate meadow seed mixes). The grasslands will be managed on an informal basis to encourage a diverse sward	Moderate	Medium

		throughout. Where any excessive areas of bare ground establish or signs of damage are observed, reseedling will be undertaken. Scrub and bracken encroachment will be monitored and managed.		
GX	Other lowland acid grassland	This grassland will be created by removing topsoil and seeding with an appropriate acid grassland seed mix. The grassland will be managed on an informal basis to encourage a diverse sward height and monitoring and management of scrub and bracken encroachment.	Moderate	Medium
S1	Mixed Scrub	This habitat will be planted using a diverse range of native scrub species. It will incorporate glades, rides, and clearings and be managed to maintain these. Edge habitat will be maintained by cutting annually in late summer/early autumn. The scrub will be monitored for invasive species which will be removed if found.	Moderate	Medium
S2	Mixed Scrub	This habitat will be planted using a diverse range of native scrub species. The scrub will be monitored for invasive species which will be removed if found.	Poor	Medium
N/A	Individual trees	New tree planting will be included throughout the Site with a mixture of native and non-native species (native species targeting moderate condition and non-native targeting poor). Long-term management will promote tree health and include replacement planting of failed specimens where required.	Poor & Moderate	Medium
N/A	Developed land; sealed surface	The built environment may provide opportunities for the inclusion of further tree planting, hedgerows and landscape planting which will be considered at the detailed design stage and will help to further increase the BNG score for the Site.	N/A	Low
N/A	Vegetated garden	N/A – The client does not have control over the management of private gardens. A 70:30 split between sealed surface and vegetated gardens has been assumed for the developed area.	N/A	Low

Hedgerows

Hedgerow Retention

- 6.6 All native hedgerows and tree-lines are to be retained except for minor losses in H2 and L2 for the creation of the proposed access.

Hedgerow Creation

- 6.7 Native, species-rich hedgerows in moderate condition will be created along the eastern and southern boundaries and within the Site itself. These hedgerows will be planted with a minimum of 5 native species per 30m and managed in the long-term through rotational cutting to encourage the establishment of bushy hedgerows. Most of the hedgerows are to be created in association with grassland habitats that will encourage the establishment on an undisturbed margin that will be sown with a native wildflower seed mix.

- 6.8 Non-native, ornamental hedgerows are also proposed closer to the development footprint. These hedgerows will prioritise the inclusion of fruit-bearing species to provide for wildlife utilising the Site. These hedgerows will be managed more formally and more regularly than the native hedgerows.

Watercourses

Watercourse Retention

- 6.9 Stream S1 along the southern boundary will be retained.

Watercourse Creation

- 6.10 A ditch, D1, in poor condition will be created to the south of the Site, running east to west. This ditch will be planted up with a fringe of marginal vegetation and managed to prevent it from becoming heavily shaded.

7.0 CONCLUSION

- 7.1 The habitat retention, enhancement and creation proposals highlighted within this report have all been inputted into the Statutory Biodiversity Metric. *Table 4* provides a summary of the headline results of the assessment completed for the proposals.

Table 4: Statutory Biodiversity Metric Headline Results

Baseline	Habitat Units	43.91
	Hedgerow Units	3.87
	Watercourse Units	0.99
Post-Intervention	Habitat Units	40.00
	Hedgerow Units	9.53
	Watercourse Units	1.36
Total Net Unit Change	Habitat Units	-3.91
	Hedgerow Units	5.66
	Watercourse Units	0.37
Total Net Percentage Change	Habitat Units	-8.89%
	Hedgerow Units	146.14%
	Watercourse Units	37.41%

- 7.2 The Statutory Metric has demonstrated that the scheme will result in over a 20% net gain for both hedgerow and watercourse units, with a 3.91 loss (8.89% loss) in habitat units onsite.

Habitat Trading Rules

- 7.3 The proposals are currently resulting in a net loss and the trading rules of the metric are not being satisfied in the proposals due to a loss of low distinctiveness grassland units, tall forbs and ruderal. Although the proposals include the creation and enhancement of modified, other neutral and other lowland acid grassland, it is not sufficient to reach to achieve a net gain on the Site. In total, 3.91 units of low distinctiveness units or a higher distinctiveness unit type will be required offsite in order to demonstrate a policy compliant BNG. A further additional 8.78 low distinctiveness units or a higher distinctiveness will be required offsite in order to achieve the 20% net gain onsite

Biodiversity Net Gain Hierarchy

- 7.4 The Biodiversity Net Gain hierarchy is provided within the Government's PPG and sets out guidance on how to prioritise habitat avoidance, retention and compensation for more valuable habitats. The BNG Hierarchy has influenced the Site design through the following measures:
- Habitat loss has for the most part been restricted to low or very low distinctiveness habitats which have very limited ecological value.
 - Proposals have sought to retain medium distinctiveness habitats where possible, however the scheme will result in the loss of an area of other neutral grassland in the south of the Site. The grassland is species poor and is not considered to be a good example of its habitat type. The proposals will provide compensatory habitat creation including the creation of other neutral grassland to the south and west of the development footprint which will target a better condition than the grassland to be lost. On balance, the scheme will result in

a great extent of this medium distinctiveness habitat and the small loss of medium distinctiveness grassland is therefore not considered to be a constraint to this assessment.

- A number of individual trees are being lost, however over 100 new trees will be planted throughout the development, including an area of fruit-tree planting. This tree planting will create more of this medium distinctiveness habitat than there was previously onsite and so the loss of trees is not considered a constraint.
- A small portion of native hedgerow on the eastern boundary is being lost to create access into the Site. New species-rich native hedgerow planting will more than adequately mitigate for this, with new hedgerows planting along the southern and eastern boundaries and within the Site.

Compensation

7.5 Compensatory units will be delivered through the following options, in order of preference and in accordance with the Biodiversity Net Gain Hierarchy:

- **Bespoke Compensation:** Ideally an agreement can be sought with the Guildford Borough Council to deliver bespoke compensation somewhere within the authority area.
- **Purchasing Units from a Local Habitat Bank:** Where an agreement cannot be sought for bespoke compensation, units can be purchased from any habitat banks run by the local planning authority or by a private provider. This will be delivered within Guildford Borough Council where possible.
- **Purchasing Units from a Nearby Habitat Bank:** Where units are not available in Guildford Borough Council, units will be purchased from a habitat bank in an adjacent Local Planning Authority Boundary/National Character Area.
- **Purchasing Units from a National Habitat Bank:** Where local habitat bank cannot be found, units can be purchased from a habitat bank elsewhere in England. Proximity will be considered while sourcing units, with the closest available units preferred.
- **Purchasing Statutory Credits:** Where units cannot be sought from a national habitat bank, statutory credits will be purchased. A sufficient number of units will be purchased to both meet the trading rules and to deliver the minimum 10% net gain requirement.

7.6 Units will only be purchased from Sites that are registered on Natural England's BNG Sites Register. Consequently, they will have been secured under a minimum 30-year legal agreement with habitat enhancements to be delivered through an agreed habitat management and monitoring plan (HMMP).

7.7 The delivery of off-site habitat units will be secured through the mandatory Biodiversity Net Gain condition imposed by the Environment Act, 2021. Details of the off-site provision will be supplied as part of a Biodiversity Gain Plan which is to be submitted following receipt of planning permission in accordance with the Environment Act 2021 requirements.

Securing BNG

7.8 Further details on habitat creation, enhancement and management can be provided at the detailed design stage of the proposals, where ecologists will input directly into landscape planting. A Habitat Management and Monitoring Plan will also be provided as part of a

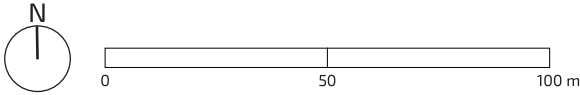
Biodiversity Gain Plan which, in accordance with the requirements of the Environment Act, will be provided following receipt of full planning permission. This HMMP will provide detail on how creation, retained and enhanced habitats across the Site that are significantly contributing to the Site's BNG will be managed for a minimum of 30 years.

- 7.9 Biodiversity Net Gain has been used to inform the habitat creation and enhancement proposals for the scheme and the resulting habitats will provide a betterment for local wildlife.

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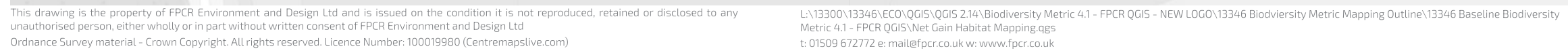
- Site Boundary**
- Baseline Habitats**
 - Artificial unvegetated, unsealed surface
 - Bramble scrub
 - Developed land; sealed surface
 - Modified grassland
 - Other lowland acid grassland
 - Other neutral grassland
 - Ruderal/Ephemeral
 - Tall forbs
- Baseline Hedgerow**
 - Non-native and ornamental hedgerow
 - Line of trees
 - Native hedgerow
 - Native hedgerow - associated with bank or ditch
 - Native hedgerow with trees
- Baseline Watercourse**
 - Other rivers and streams
- Baseline Individual Trees**
 - Existing very large rural tree
 - Existing large rural tree
 - Existing medium rural tree
 - Existing small urban tree
 - Existing small rural tree

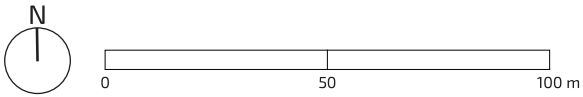
date 29/10/25 drwn/chkd DS / REM

client Gleeson Land Ltd.
project Land at Shortland Farm, Ash

title BASELINE HABITAT PLAN scale 1:1,700 @ A3

number FIGURE 1 rev -





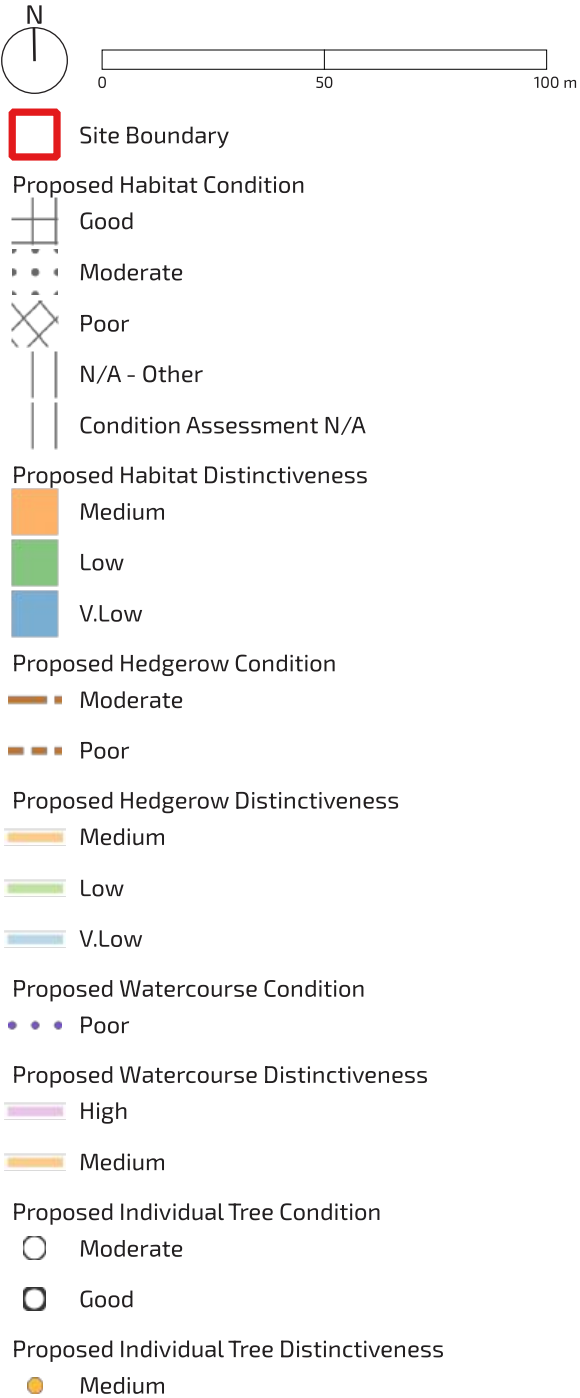
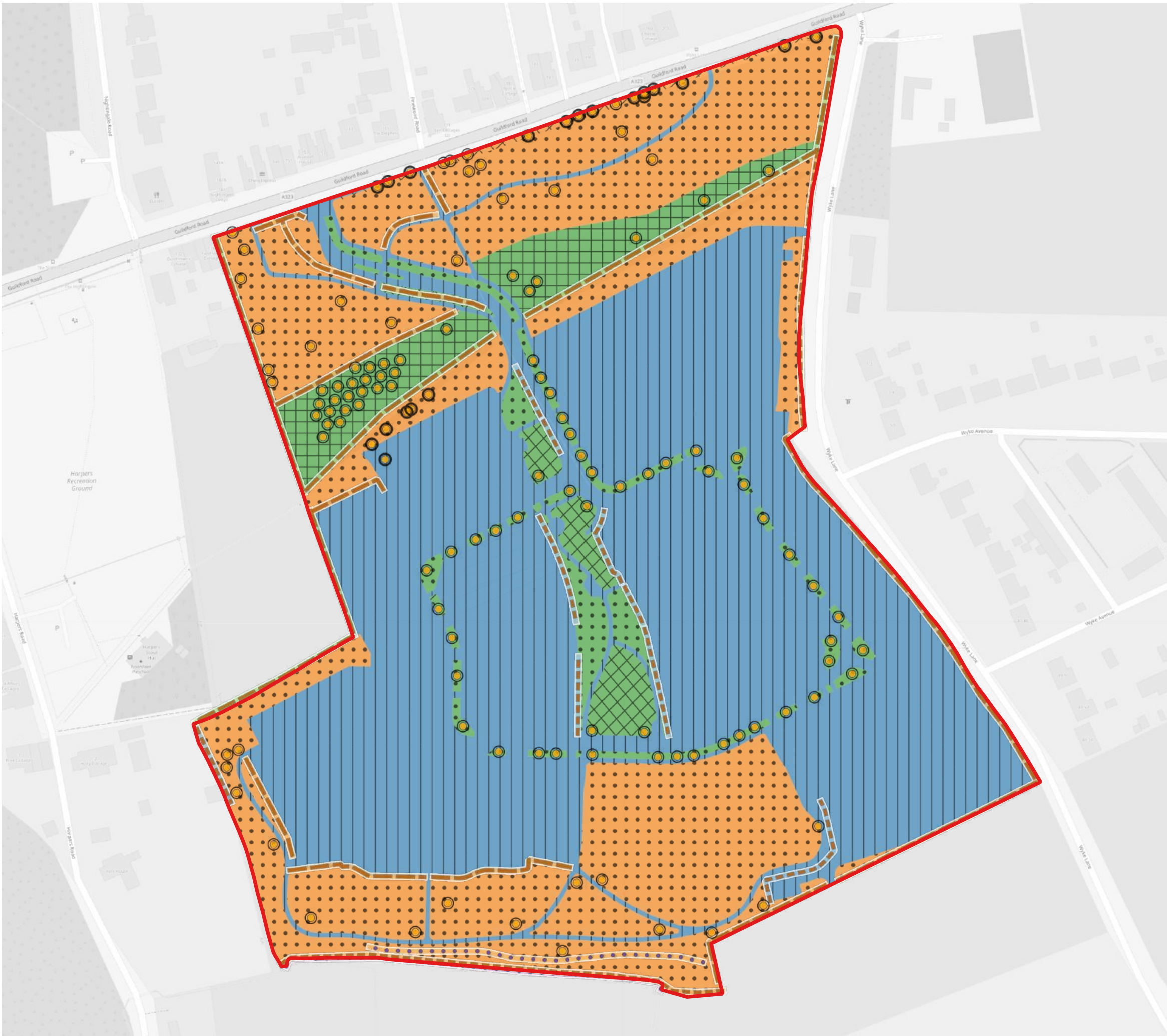
- Site Boundary**
- Proposed Habitats**
 - Developed land; sealed surface
 - Mixed scrub
 - Modified grassland
 - Other lowland acid grassland
 - Other neutral grassland
 - Residential
- Proposed Hedgerows**
 - Non-native and ornamental hedgerow
 - Line of trees
 - Native hedgerow
 - Native hedgerow - associated with bank or ditch
 - Native hedgerow with trees
 - Species-rich native hedgerow
- Proposed Watercourse**
 - Ditches
 - Other rivers and streams
- Proposed Individual Trees**
 - Proposed small urban tree
 - Retained very large rural tree
 - Retained large rural tree
 - Retained medium rural tree
 - Retained small rural tree

date 29/10/25 drwn/chkd DS / RM

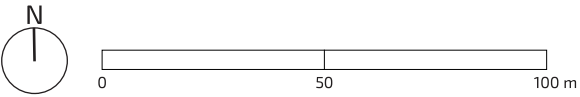
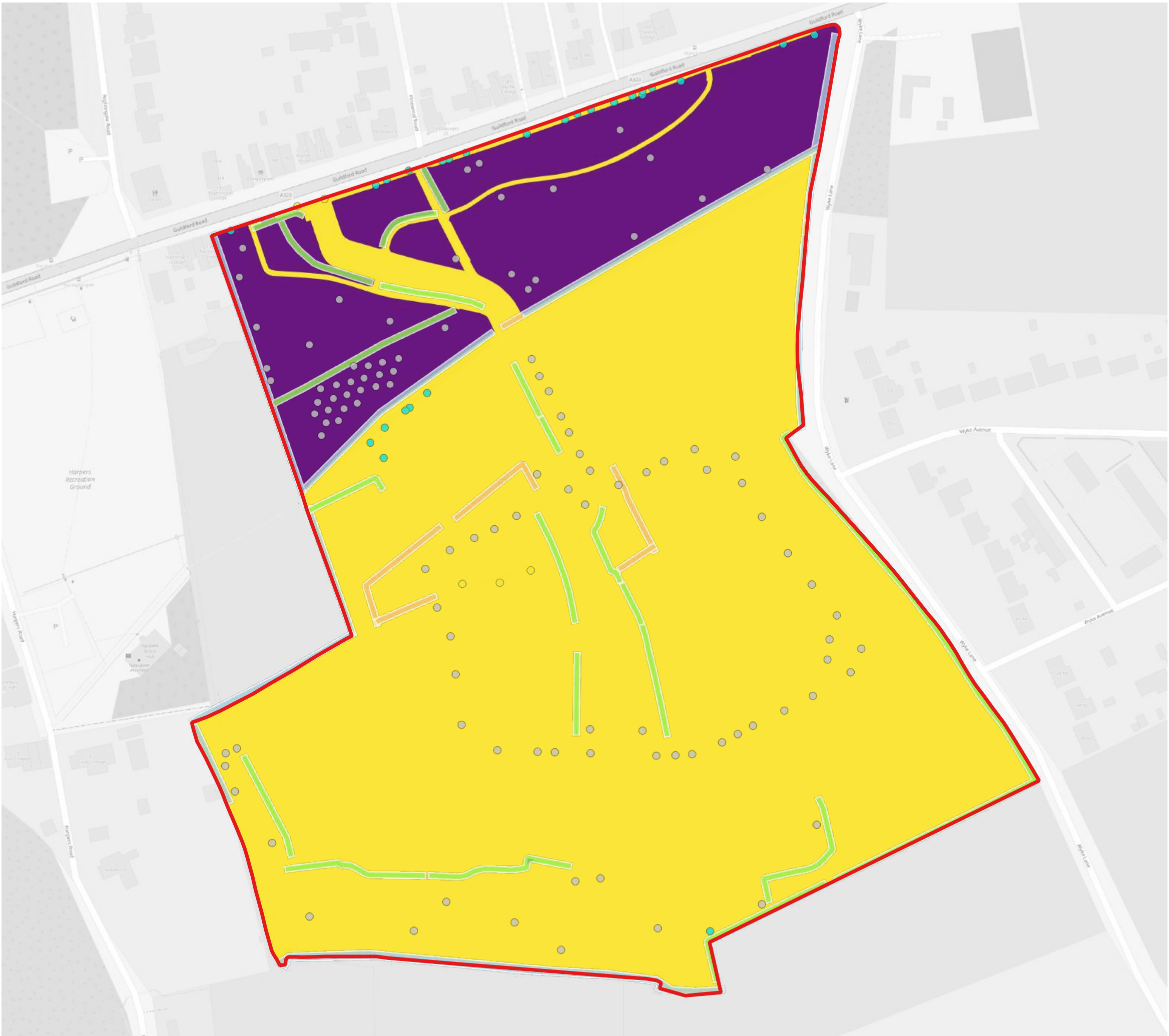
client
Gleeson Land Ltd.
project
Land at Shortland Farm, Ash

title **PROPOSED HABITAT PLAN** scale 1:1,700 @ A3

number **FIGURE 3** rev -



date	29/10/25	drwn/chkd	DS / RM
client	Gleeson Land Ltd.		
project	Land at Shortland Farm, Ash		
title	PROPOSED HABITAT CONDITION AND DISTINCTIVENESS PLAN	scale	1:1,700 @ A3
number	FIGURE 4	rev	-



Site Boundary

Habitats

Enhanced

Lost

Hedgerows

Created

Retained

Lost

Watercourses

Retained

Individual Trees

Created

Retained

Proposed Lost

date

29/10/25

drwn/chkd

DS / RM

client

Gleeson Land Ltd.

project

Land at Shortland Farm,
Ash

title

HABITAT RETENTION PLAN

scale

1:1,700 @ A3

number

FIGURE 5

rev

-

FPCR | environment
& design

Appendix A: Baseline Condition Assessment Results

GRASSLAND (LOW DISTINCTIVENESS)		
Condition Criteria	Grassland Reference	
	Modified Grassland – G3 & G5	Modified Grassland – G4 & G6
1 There must be 6-8 species per m2, including at least 2 forbs. Note - if a grassland has 9 or more species per m2 it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving moderate or good condition.	Fail	Pass
2 Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Fail
3 Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass	Pass
4 Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Fail	Fail
5 Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens.	Fail	Fail
6 Cover of bracken less than 20%.	Pass	Pass
7 There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981)	Pass	Pass
Total Passes	3	4
Passes 6 or 7 criteria including non-negotiable criterion 1 Good Passes 4 or 5 criteria including non-negotiable criterion 1 Moderate Passes 3 or fewer criteria; Poor OR Passes 4-6 criteria (excluding criteria A) Condition	Poor (does not pass non-negotiable criterion)	Moderate

GRASSLAND (MEDIUM DISTINCTIVENESS)				
Condition Criteria	Grassland Reference			
	Other Neutral Grassland – G7	Other Neutral Grassland – G8	Other Lowland Acid Grassland – G1	Other Lowland Acid Grassland – G2
1 The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). NB – this criterion is essential for achieving moderate or good condition (non-acid grassland types only).	Fail	Fail	Fail	Fail
2 Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	Pass	Pass	Pass
3 Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Fail	Fail	Fail	Fail
4 Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Pass	Pass	Pass	Pass
5 Combined cover of species indicative of sub-optimal condition* and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive plants listed on Schedule 9 of WCA, 1981 this criterion is automatically failed.	Pass	Fail	Fail	Pass
Additional Group (Non-acid types only)				
6 There are greater than 10 species per metre squared, including forbs that are characteristic of the habitat type. NB – this criterion is essential for achieving good condition (non-acid grassland types only)	Fail	Fail	N/A	N/A
Total Passes	3	2	2	3
Condition				
Passes 5 or 6 criteria, including essential criterion 1 and 6	Poor (does not pass non-negotiable criterion)	Poor (does not pass non-negotiable criterion)	Poor (does not pass non-negotiable criterion)	Poor (does not pass non-negotiable criterion)
Passes 3-5 criteria including essential criterion 1				
Passes 2 or fewer criteria				
OR				
Passes 3 or 4 criteria excluding criterion 1 and 6				

URBAN HABITATS (LOW DISTINCTIVENESS)		
Condition Criteria	Reference	
	Tall forbs	Ruderal and ephemeral
A Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	Fail	Fail
B The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Fail	Fail
C Invasive non-native species (Schedule 9 of WCA) and those detrimental to native wildlife cover less than 5% of total vegetated area. For green roofs also include cover of <i>Buddleia davidii</i> . NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Pass	Pass
Total Passes	1	1
Condition Passes all 3 core criteria; Good AND Meets the requirements for Good condition within criterion C. (Good (3)) Passes 2 of 3 core criteria; Moderate OR Passes 3 of 3 core criteria but does not meet the requirements for Good Passes 0 or 1 of 3 core criteria. (Poor (1)) Poor	Poor	Poor

INDIVIDUAL TREES							
Condition Criteria	Trees Reference						
	T1 - T13, T15-T18, T22	T14, T19, T26, T31	T20, T21, T23	T24	T29 & T30	T25 & T27	T28
1 The Tree is a native species (or more than 70% within the block are native species)	P	P	P	F	P	F	P
2 Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	P	P	P	P	P	P	P
3 The tree is mature (or more than 50% within the block are mature). A mature tree is 2/3 its expected fully mature height for the species	P	F	F	F	P	P	P
4 There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	F	F	F	F	F	F	F
5 Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark.	P	P	F	F	F	F	P
6 More than 20% of the tree canopy area is oversailing vegetation beneath.	P	P	P	P	F	P	F
Total Passes	5	4	3	2	3	3	4
Condition	Good	Moderate	Moderate	Poor	Moderate	Moderate	Moderate
Passes 5 or 6 criteria Good (3)							
Passes 3 or 4 criteria Moderate (2)							
Passes 2 or fewer criteria Poor (1)							

LINE OF TREES									
Statutory Condition Criteria	Line of Trees Reference								
	L1, L2 & L3								
1 More than 70% of trees are native species.	P								
2 Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	P								
3 One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates; presence of standing and attached deadwood, cavities, ivy or loose bark	P								
4 There is an undisturbed naturally vegetated strip of at least 6m on both sides to protect the line of trees from farming and other anthropogenic operations. Where veteran trees are present root protection areas should follow standing advice	F								
5 At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	F								
Total Passes	3								
<table> <tr> <th colspan="2">Condition</th></tr> <tr> <td>Passes 5 criteria</td><td>Good (3)</td></tr> <tr> <td>Passes 3 or 4 criteria</td><td>Moderate (2)</td></tr> <tr> <td>Passes 2 or fewer criteria</td><td>Poor (1)</td></tr> </table>	Condition		Passes 5 criteria	Good (3)	Passes 3 or 4 criteria	Moderate (2)	Passes 2 or fewer criteria	Poor (1)	Moderate
Condition									
Passes 5 criteria	Good (3)								
Passes 3 or 4 criteria	Moderate (2)								
Passes 2 or fewer criteria	Poor (1)								

NATIVE HEDGEROWS						
Functional Group	Statutory Condition Criteria	Hedgerow Reference				
		H1	H2	H3	H5	H6
A	A1 Height >1.5m average along length	F	P	P	P	P
	A2 Width >1.5m average along length	P	P	P	P	F
B	B1 Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	F	P	P	P	P
	B2 Gaps make up <10% of total length and no canopy gaps >5 m (access points and gates excluded from <5m)	P	P	F	P	P
C	C1 >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length measured from outer edge of hedgerow, and is present on at least one side of the hedge (at least)	F	F	F	F	F
	C2 Plant species indicative of nutrient enrichment (nettles, docks, cleavers) dominate <20% cover of the area of undisturbed ground	F	P	F	F	F
D	D1 >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.	P	F	P	P	P
	D2 >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	F	P	F	F	F
Additional group – applicable to hedgerows with trees only						
E	E1 There is more than one age-class (or morphology) of trees present (young, mature, veteran, ancient) and there is on average at least one present per 20-50m of hedgerow. (A mature tree is one that is at least 2/3 expected fully mature height for the species)		F	P	F	
	E2 At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity		F	P	P	
Total Fails		5	4	4	4	4
No more than 2 total failures; AND no more than 1 failure in any functional group		Poor	Poor	Mod	Mod	Mod
For Hedgerows with no trees: No more than 4 total failures; AND does not fail both attributes in more than one functional group						
For Hedgerows with trees: No more than 5 total failures; AND does not fail both attributes in more than one functional group						
For Hedgerows with no trees: No more than 4 total failures; OR fails both attributes in multiple functional groups						
For Hedgerows with trees: Fails more than 5; OR fails both attributes in multiple functional groups						

Appendix B

River Condition Assessment (RCA) for Biodiversity Net Gain Assessment (BNGA)

Client: Gleeson Land Limited

Project: Land at Shortland Farm, Ash

Watercourse ID:	Stream at Shortland Farm	
Site Name/Location	Shortland Farm / SU 90646 50906	
GPS / Grid Ref of MoRPh5 Midpoint	51.249538, -0.703070 / SU 90613 50839	
River Section Length	Onsite Section= 210m River Type Reach= 900m	
RCA River type	K - Straight/sinuuous, coarsest SA, average SI	
Watercourse Description for Full River Section (including the riparian zone)		
The section of the brook running from east to west through the site along the southern boundary is straight with an average width of 1 metre. It was dry at the time of the survey, the 12.06.2025. Left Bank: Bank Top: Predominantly covered with a mix of short and tall grasses, with a strip of scrub and trees running alongside the stream. Bank Face: Features a steep slope, alternating between tall grass, scrub, and scattered trees. Right Bank: Bank Top: Mostly short grass, used by horses. Bank Face: Features a steep slope predominantly, interspersed with a few vertical sections, covered with short and tall grasses. Riverbed: - At the time of the survey, the riverbed was dry, and no aquatic vegetation was observed. It contained a substantial amount of organic debris, including leaves, twigs, and branches. <i>Note: As the stream was dry, water width and depth were estimated based on visible indicators, following Cartographer's Guidance and standard river condition assessment practices. These indicators include bank topography, vegetation lines, sediment deposition patterns and substrate features.</i> The locations of the modules are shown in Figure 1.		
RCA Index ID	RCA Index Name Green = Positive and Red = Negative scoring indices	Subreach 1 (SR1)
		Baseline Score
Bank Top		
B1	Bank top vegetation structure	1
B2	Bank top tree feature richness	0
B3	Bank top water-related features	0
B4	Bank top Non-Native-Invasive Species (NNIPS) cover	0
B5	Bank top managed ground cover	-2
Bank face		
C1	Bank face riparian vegetation structure	1
C2	Bank face tree feature richness	0
C3	Bank face natural bank profile extent	3

C4	Bank face natural bank profile richness	2
C5	Bank face natural bank material	1
C6	Bank face bare sediment extent	1
C7	Bank face artificial bank profile extent	0
C8	Bank face reinforcement extent	0
C9	Bank face reinforcement material	0
C10	Bank face NNIPS cover	0
Channel Margin		
D1	Channel margin aquatic vegetation	0
D2	Channel margin aquatic morphotype	0
D3	Channel margin physical feature extent	0
D4	Channel margin physical feature	1
D5	Channel Margin artificial features	0
Channel Bed		
E1	Channel aquatic Morphotype richness	0
E2	Channel bed tree features richness	1
E3	Channel bed hydraulic features richness	0
E4	Channel bed nature features richness	0
E5	Channel bed natural features richness	0
E6	Channel bed material richness	2
E7	Channel bed siltation	0
E8	Channel bed reinforcement extent	0
E9	Channel bed reinforcement severity	0
E10	Channel bed artificial features severity	0
E11	Channel bed NNIPS extent	0
E12	Channel bed filamentous algae extent	0
Is the Watercourse Over Deep?		No
Preliminary Condition Score		0.478
Final Condition Score (including over deepness assessment)		Moderate
Baseline Summary Description of Positive and Negative Indices		
<u>Subreach 1:</u> SR1 scores better in its bank top vegetation structure, bank face riparian vegetation structure, natural bank profile extent and richness, natural bank material and bare sediment, channel bed tree features richness, and channel bed material richness. Low scoring areas comprise the managed ground cover on the bank tops. The river shape index indicates that the channel is straight, highlighted by the lack of meanders, but still connected to its floodplain. Therefore, the Final Condition Score has been defined by Cartographer as Moderate.		
Baseline Summary Assessment of Encroachment		

- Managed ground cover is present along the stream.
- The river exhibits frequent drying throughout the year.
- The channel lacks natural meanders.
- There is an absence of aquatic vegetation.



0 50 100 m

Key

RCA Module Locations

- Module 1
- Module 2
- Module 3
- Module 4
- Module 5

date	29/10/25	drwn/chkd	SG
client	Gleeson Land		
project	Land at Shortland Farm, Ash		
title	RIVER CONDITION ASSESSMENT MODULE LOCATIONS PLAN	scale	1:1,900 @ A3
number	FIGURE 1	rev	-

Appendix C: Proposed Condition Assessments

GRASSLAND (LOW DISTINCTIVENESS)			
Condition Criteria	Grassland Reference		
	Modified Grassland	Modified Grassland	Modified Grassland
1 There must be 6-8 species per m2, including at least 2 forbs. Note - if a grassland has 9 or more species per m2 it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving moderate or good condition.	Fail	Pass	Pass
2 Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Pass	Pass
3 Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass	Pass	Pass
4 Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Fail	Fail	Pass
5 Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens.	Fail	Fail	Pass
6 Cover of bracken less than 20%.	Pass	Pass	Pass
7 There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981)	Pass	Pass	Pass
Total Passes	3	5	7
Passes 6 or 7 criteria including non-negotiable criterion 1 Good Passes 4 or 5 criteria including non-negotiable criterion 1 Moderate Passes 3 or fewer criteria; Poor OR Passes 4-6 criteria (excluding criteria A) Condition	Poor (does not pass non-negotiable criterion)	Moderate	Good

GRASSLAND (MEDIUM DISTINCTIVENESS)		
Condition Criteria	Grassland Reference	
	Other Neutral Grassland	Other Lowland Acid Grassland
1 The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). NB – this criterion is essential for achieving moderate or good condition (non-acid grassland types only).	Pass	Pass
2 Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	Pass
3 Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Fail	Fail
4 Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Pass	Pass
5 Combined cover of species indicative of sub-optimal condition* and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive plants listed on Schedule 9 of WCA, 1981 this criterion is automatically failed.	Pass	Pass
Additional Group (Non-acid types only)		
6 There are greater than 10 species per metre squared, including forbs that are characteristic of the habitat type. NB – this criterion is essential for achieving good condition (non-acid grassland types only)	Fail	N/A
Total Passes	4	4
Condition	Moderate	Moderate
Passes 5 or 6 criteria, including essential criterion 1 and 6		
Passes 3-5 criteria including essential criterion 1		
Passes 2 or fewer criteria OR Passes 3 or 4 criteria excluding criterion 1 and 6		

INDIVIDUAL TREES		
Condition Criteria	Trees Reference	
	Native	Non-native
1 The Tree is a native species (or more than 70% within the block are native species)	P	F
2 Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	P	P
3 The tree is mature (or more than 50% within the block are mature). A mature tree is 2/3 its expected fully mature height for the species	P	P
4 There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	F	F
5 Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark.	P	F
6 More than 20% of the tree canopy area is oversailing vegetation beneath.	F	F
Total Passes	4	2
Condition Passes 5 or 6 criteria Good (3) Passes 3 or 4 criteria Moderate (2) Passes 2 or fewer criteria Poor (1)	Moderate	Poor

NATIVE HEDGEROWS		
Functional Group	Statutory Condition Criteria	Hedgerow Reference
		Species-rich native hedgerow
A	A1 Height >1.5m average along length	P
	A2 Width >1.5m average along length	P
B	B1 Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	P
	B2 Gaps make up <10% of total length and no canopy gaps >5 m (access points and gates excluded from <5m)	P
C	C1 >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length measured from outer edge of hedgerow, and is present on at least one side of the hedge (at least)	F
	C2 Plant species indicative of nutrient enrichment (nettles, docks, cleavers) dominate <20% cover of the area of undisturbed ground	F
D	D1 >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.	P
	D2 >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	F
Additional group – applicable to hedgerows with trees only		
E	E1 There is more than one age-class (or morphology) of trees present (young, mature, veteran, ancient) and there is on average at least one present per 20-50m of hedgerow. (A mature tree is one that is at least 2/3 expected fully mature height for the species)	
	E2 At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity	
Total Fails		
No more than 2 total failures; AND no more than 1 failure in any functional group		Good
For Hedgerows with no trees:		Moderate
No more than 4 total failures; AND does not fail both attributes in more than one functional group		
For Hedgerows with trees:		
No more than 5 total failures; AND does not fail both attributes in more than one functional group		
For Hedgerows with no trees:		Poor
No more than 4 total failures; OR fails both attributes in multiple functional groups		
For Hedgerows with trees:		
Fails more than 5; OR fails both attributes in multiple functional groups		
		Moderate

MIXED SCRUB		
Condition Criteria	Scrub reference	
	S1	S2
1 Habitat is representative of UKHab description (where in its natural range) and closely matches the characteristics of the scrub type. At least 80% of the scrub is native, and there are at least three woody species, with no single species comprising more than 75% of the cover (except hazel, common juniper, sea buckthorn or box, which can be up to 100% cover).	P	P
2 There is a good age range – all the following are present: seedlings, saplings, young shrubs and mature/veteran shrubs.	P	F
3 There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition* make up less than 5% of ground cover.	P	P
4 The scrub has a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat(s).	P	F
5 There are clearings, glades or rides present within the scrub, providing sheltered edges.	F	F
Total Passes	4	2
Condition	Moderate	Poor
Passes 5 of 5 criteria Good (3)		
Passes 3 or 4 of 5 criteria Moderate (2)		
Passes 2 or fewer criteria Poor (1)		

DITCH	
Statutory Condition Criteria	Ditch reference
	D1
1 The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	P
2 A range of emergent, submerged, and floating leaved plants are present. As a guide >10 species of emergent, floating, or submerged plants in a 20 m ditch length.	F
3 There is less than 10% cover of filamentous algae and/or duckweed <i>Lemna spp.</i> (these are signs of eutrophication).	P
4 A fringe of marginal vegetation is present along more than 75% of the ditch.	F
5 Physical damage evident along less than 5% of the ditch, such as excessive poaching, damage from machinery use or storage, or any other damaging management activities.	F
6 Sufficient water levels are maintained: as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.	F
7 Less than 10% of the ditch is heavily shaded.	P
8 There is an absence of non-native plant and animal species.	P
Total Passes	4
Condition	Poor
Passes 8 of 8 criteria Good (3)	
Passes 6 or 7 of 8 criteria Moderate (2)	
Passes 0, 1, 2, 3, 4 or 5 of 8 criteria Poor (1)	

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Appendix H: Shadow Habitat Regulations Assessment

Client

Gleeson Land Limited

Project

**Land at Shortlands Farm,
Ash**

Date

October 2025

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Rev	Issue Status	Prepared/Date	Approved / Date
-	Draft	REM / 17.09.25	APD / 09.10.25
-	Final	REM / 17.09.25	APD / 09.10.25

1.0 INTRODUCTION

- 1.1 This shadow Habitat Regulation Assessment (sHRA) has been prepared by FPCR Environment and Design Ltd. To accompany an application for outline planning permission for the redevelopment of Land at Shortland Farm, Guildford Road, Ash, Guildford. The application is submitted on behalf of Gleeson Land.
- 1.2 This report has been prepared to provide supporting information to assist Guildford Borough Council in their responsibility to assess the likelihood of significant effects on Internationally Designated Sites of Nature Conservation importance within their remit. It provides a detailed assessment of the likelihood for the proposals onsite to result in a Likely Significant Effect.

Site Context

- 1.3 The Site predominantly comprises of horse grazed fields, with associated hedgerows and tree-lines. There is an area of hardstanding within the centre of the Site with includes a number of horse stables. A stream runs along part of the southern boundary of the Site, west to east and a Public Right of Way crosses through the Site, bound by tree-lines, also from west to east.
- 1.4 To the north of the Site lies Guildford Road and part of the Thames Basin Heath Special Protection Area. The Site is bound by Wyke Lane to the east, and the surrounding landscape to the east and west is predominately fields and woodland compartments. To the west of the Site lies the residential environments of Ash.

Site Proposals

- 1.5 Outline planning application with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of:
- up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3);
 - green and blue infrastructure; and
 - associated service and utility structures.

Legislation

- 1.6 The Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended) ratifies into UK law the Habitats Directive (92/43/EEC) and the Birds Directive (79/409/EEC). The 2019 amendment ensures that habitat and species protection derived from EU law continues to apply following Brexit. The CHSR requires the compilation and maintenance of a register of European protected sites, which include:
- Special Areas of Conservation (SAC) – designated for important habitats/species listed under Annex I and II of the Habitats Directive.
 - Special Protection Areas (SPA) – designated for important bird populations/assemblages.
 - Ramsar sites – designated for internationally important wetlands.

European Protected Sites Considered

- 1.7 This report assesses the potential impacts of the designated features of the following:

Table 1: Internationally Designated Sites with 15km of the Site

Site Name	Site Reference	Approximate closest distance from site
Thames Basin Heaths SPA	UK9012141	335m north
Thursley Ash, Pirbright & Chobham SAC	UK0012793	335m north
Thursley, Hankley & Frensham Commons SPA	UK9012131	7.3km south
Thursley & Ockley Bogs RAMSAR	UK11074	8.4km south
Wealden Heath Phase II SPA	UK9012132	12.2km south

2.0 THE HRA PROCESS

- 2.1 The following assessment provides the information necessary for the Competent Authority, Swale Borough Council, to fulfil their duty as required under Regulation 63 of the CHSR.
- 2.2 The HRA process has developed into four stages:
- **Stage One: Screening** - also known as the Test of Likely Significant Effect (TOLSE). If the Competent Authority cannot screen out a likely significant effect, an Appropriate Assessment is required.
 - **Stage Two: Appropriate Assessment** - the Competent Authority will only agree to plans or projects that will not affect the integrity of a European site also known as the "Integrity Test".
 - **Stage Three: Alternative Solutions** - assesses any alternative solutions of a potentially damaging plan or project that failed the Integrity Test, and if it is determined there are no alternative solutions, the project cannot be agreed to and it will either need to be changed or refused.
 - **Stage Four: IROPI** - The final stage may allow a plan or project to proceed if after failing stage three if it is for Imperative Reasons of Overriding Public Interest (IROPI), and only if suitable compensatory measures are secured.
- 2.3 In accordance with the "People Over Wind" ruling (High Court Justice for European Union Case 323/17)¹, the screening of likely significant effects takes place in the absence of any mitigation measures that would avoid or reduce any effects on European designated sites.
- 2.4 This report identifies and considers ecological pathways between the application site and each European site within the zone of influence selected. Each was screened (Stage One) for a likely significant effect alone and in-combination with other plans/projects. Where there are any ecological pathways that could not be screened out without mitigation, alone or in-combinations, a Stage Two Appropriate Assessment was conducted and included in this HRA.
- 2.5 When assessing mitigation relating to nutrient impacts, in line with the "Dutch Nitrogen Case" (High Court Justice for European Union Case 293/17), any proposed mitigation measures must demonstrate no adverse effect "beyond reasonable scientific doubt" and their benefits must be certain at the time of the appropriate assessment before planning permission can be granted².
- 2.6 The following planning documents have been reviewed where relevant:
- Guildford Borough Local Plan 2015 - 2034
 - Habitats Regulations Assessment for Guildford Borough Proposed Submission local Plan: Strategy and Sites HRA 2018

¹ The Planning Inspectorate (2018) PINS Note 05/2018 Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman v Coillte Teoranta. Available at: <https://pinslibrary.org.uk/vufind/Record/22547>

² Planning Advisory Service (2022) Legal advice on the implications of the Habitats Regulations for local authority decision making in the context of nutrient neutrality. Available at: <https://www.local.gov.uk/sites/default/files/documents/PAS%20Briefing%20Note%20NN%2015%20November%2022.pdf>

3.0 STAGE ONE: SCREENING/TEST OF LIKELY SIGNIFICANT EFFECT (TOLSE)

Conservation Objectives for European Sites

SACs

- 3.1 The conservation objectives Thursley, Ash, Pirbright & Chobham SAC are to: *"ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:*
- *The extent and distribution of qualifying natural habitats and habitats of qualifying species.*
 - *The structure and function (including typical species) of qualifying natural habitats.*
 - *The structure and function of the habitats of qualifying species.*
 - *The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.*
 - *The populations of qualifying species.*
 - *The distribution of qualifying species within the site."*

SPAs

- 3.2 The conservation objectives for the Thames Basin Heaths SPA, Thursley, Hankley & Frensham Commons SPA and Wealden Heaths Phase II SPA are to *"ensure that the integrity of the site is maintained or restore as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Direct, by maintaining and restoring:*
- *The extent and distribution of the habitats of the qualifying features.*
 - *The structure and function of the habitats of the qualifying features.*
 - *The supporting processes on which the habitats of the qualifying features rely.*
 - *The population of each of the qualifying features.*
 - *The distribution of the qualifying features within the site."*

Ramsar sites

- 3.3 Conservation objectives are not produced for each individual Ramsar. However, the primary objective of all Ramsar sites is to: *"Protect and conserve a particular type of ecosystem and the flora and fauna (especially waterfowl) dependent upon it."*

THAMES BASIN HEATHS SPA**Qualifying Features****Table 2: Qualifying Features of The Thames Basin Heath SPA**

Designation	Qualifying Features
SPA ³	Under Article 4.1 of the Birds Directive are nationally important breeding populations of: • Nightjar <i>Caprimulgus europaeus</i> • Woodlark <i>Lullula arborea</i> • Dartford Warbler <i>Sylvia undata</i>

Threats and Pressures

- 3.4 The most important development-related impacts and activities threatening the condition of the Thames Basin Heaths are:
- Recreational disturbance
 - Hydrological changes
 - Invasive non-native species
 - Nitrogen deposition (due to changes in air quality)

Ecological Pathways

- 3.5 The ecological pathways typically associated with residential development, which could arise from the proposals alone (not in combination with others), and have the potential to affect the Thames Basin Heath are detailed below:

³ JNCC (2005) Natura 2000 Standard Data Form: UK9012141 Thames Basin Heaths

Table 3: The Thames Basin Heaths SPA Designations Ecological Pathways and HRA Screening Conclusions - Alone

Ecological Pathway	Assessment	Likely Significant Effect?
Recreational Disturbance	Increased recreational pressure could lead to disturbance of nightjar, woodlark and Dartford warbler breeding onsite (all Annex I species and qualifying features). The SPA is approximately 335m from the Site and so it is likely residents will frequent the designated site to walk / dog walk.	Yes
Hydrological Changes	There are no hydrological links between the Site and the Thames Basin Heaths SPA. Increased surface run-off has the potential to impact the SPA, however the associated drainage strategy will reduce this to non-significant levels.	No
Invasive Non-Native Species	No invasive, non-native species have been recorded onsite, therefore it is extremely unlikely that the proposals could lead to a significant effect on the SPA through this impact pathway.	No
Air Quality	The A234 lies within 200m of the SPA in places. The Air Quality Assessment assess that the development will lead to an increase of 881 AADT on this part of the network. This does not exceed an increase in daily traffic flows of 1,000 AADT, so it is considered that the development will not have an effect on the SPA due to air quality ⁴ .	No

⁴ IAQM (2019) A guide to the assessment of air quality impacts on designated nature conservation sites [air-quality-impacts-on-nature-sites-2019.pdf](#) [Accessed: 19.09.25]

THURSLEY, ASH, PIRBRIGHT AND CHOBHAM SAC**Qualifying Features****Table 4: Qualifying Features of Thursley Ash, Pirbright & Chobham SAC**

Designation	Qualifying Features
SAC ⁵	Annex I habitats that are a primary reason for SAC selection: • Depressions on peat substrates of the <i>Rhynchosporion</i> • European dry heaths • Northern Atlantic wet heaths with <i>Erica tetralix</i>

Threats and Pressures

3.6 The most important development-related impacts and activities threatening the condition of the SAC are:

- Hydrological changes
- Invasive non-native species
- Nitrogen deposition (due to changes in air quality)

Ecological Pathways

3.7 The ecological pathways typically associated with residential development, which could arise from the proposals alone (not in combination with others), and have the potential to affect the SAC are detailed below:

Table 5: Thursley, Ash, Pirbright and Chobham SAC Designations Ecological Pathways and HRA Screening Conclusions - Alone

Ecological Pathway	Assessment	Likely Significant Effect?
Hydrological Changes	There are no hydrological links between the Site and the SAC and the Site is sufficiently distant from the for increased surface run-off not to have a significant effect on the designated site.	No
Invasive Non-Native Species	No invasive, non-native species have been recorded onsite, therefore it is extremely unlikely that the proposals could lead to a significant effect on the SPA through this impact pathway.	No
Air Quality	The A234 lies within 200m of the SPA in places. The Air Quality Assessment assess that the development will lead to an increase of 881 AADT on this part of the network. This does not exceed an increase of daily traffic flows of 1,000 AADT, so it is considered that the development will not have an effect on the SPA due to air quality ⁴ .	No

⁵ JNCC (2005) Natura 2000 Standard Data Form: UK0012793 Thursley, Ash, Pirbright and Chobham

THURSLEY, HANKLEY AND FRENHAM COMMONS SPA**Qualifying Features****Table 6: Qualifying Features of Thursley, Hankley and Frensham Commons SPA**

Designation	Qualifying Features
SPA ⁶	Under Article 4.1 of the Birds Directive are nationally important breeding populations of: • Nightjar <i>Caprimulgus europaeus</i> • Woodlark <i>Lullula arborea</i> • Dartford Warbler <i>Sylvia undata</i>

Threats and Pressures

- 3.8 The most important development-related impacts and activities threatening the condition of this SPA are:
- Recreational disturbance
 - Hydrological changes
 - Invasive non-native species
 - Nitrogen deposition (due to changes in air quality)

Ecological Pathways

- 3.9 The ecological pathways typically associated with residential development, which could arise from the proposals alone (not in combination with others), and have the potential to affect the Thursley, Hankley and Frensham Commons SPA designations are detailed below:

Table 7: Thursley, Hankley and Frensham Commons SPA Designations Ecological Pathways and HRA Screening Conclusions – Alone

Ecological Pathway	Assessment	Likely Significant Effect?
Recreational Disturbance	Increased recreational pressure could lead to disturbance of nightjar, woodlark and Dartford warbler breeding onsite (all Annex I species and qualifying features). The development has the potential to increase recreational pressure on the SPA, with research showing 85% of dog walkers and 70% of all visitors to the SPA derived from within 9km of the SPA (with this proposed development lying approximately 7.3km from the SPA). However, the Thames Basin Heaths SPA lies 335m from the Site, and is of a similar habitat to Thursley, Hankley & Frensham Commons SPA, and so is much more likely to be frequented by dog walkers from the development, instead of them travelling over 7km. Ash Green Meadows SANG is also located a 6 minute drive from the proposed development, which provides further walking routes.	Yes
Hydrological Changes	There are no hydrological links between the Site and the SPA and the Site is sufficiently distant / separated from the SPA for increased surface run-off not to have a significant effect on the designated site.	No

⁶ JNCC (1992) Natura 2000 Standard Data Form: UK9012131 Thursley, Hankley and Frensham Commons

Ecological Pathway	Assessment	Likely Significant Effect?
Invasive Non-Native Species	No invasive, non-native species have been recorded onsite, therefore it is extremely unlikely that the proposals could lead to a significant effect on the SPA through this impact pathway.	No
Air Quality	The A287, A286 and A3 all lie within 200m of the SPA. The Air Quality Assessment assess that the development will lead to an increase of 881 AADT on this part of the network. This does not exceed an increase of daily traffic flows of 1,000 AADT, so it is considered that the development will not have an effect on the SPA due to air quality ⁴ .	No

THURSLEY AND OCKLEY BOGS RAMSAR**Qualifying Features****Table 8: Qualifying Features of Thursley and Ockley Bogs Ramsar**

Designation	Qualifying Features
Ramsar ⁷	- Criterion 2a – supports a community of rare wetland invertebrate species including notable numbers of breeding dragonflies. - Criterion 3a – One of the few sites in Britain to support all six native reptile species. Also supports nationally important breeding populations of nightjar and woodlark.

Threats and Pressures

3.10 The most important impacts and activities threatening the condition of the Ramsar are:

- Recreational disturbance
- Hydrological changes
- Invasive non-native species
- Nitrogen deposition (due to changes in air quality)

Ecological Pathways

3.11 The ecological pathways typically associated with residential development, which could arise from the proposals alone (not in combination with others), and have the potential to affect the Ramsar are detailed below:

Table 9: Thursley and Ockley Bogs Ramsar Designations Ecological Pathways and HRA Screening Conclusions - Alone

Ecological Pathway	Assessment	Likely Significant Effect?
Recreational Disturbance	Increased recreational pressure could lead to disturbance of nightjar, woodlark and Dartford warbler breeding onsite (all Annex I species and qualifying features). This Ramsar lies approximately 8.4km from the development site, and although there is no zone of influence for this Ramsar, it is likely to be similar to the overlapping Thursley, Hankley and Frensham Commons SPA which has a zone of influence of 9km. However, the Thames Basin Heaths SPA lies 335m from the Site, and is of a similar habitat to Thursley, Hankley & Frensham Commons SPA, and so is much more likely to be frequented by dog walkers from the development, instead of them travelling over 8km. Ash Green Meadows SANG is also located a 6 minute drive from the proposed development, which provides further walking routes.	Yes
Hydrological Changes	There are no hydrological links between the Site and the Ramsar and the Site is sufficiently distant / separated from the Ramsar for increased surface run-off not to have a significant effect on the designated site.	No
Invasive Non-Native Species	No invasive, non-native species have been recorded onsite, therefore it is extremely unlikely that the proposals could lead to a significant effect on the Ramsar through this impact pathway.	No

⁷ JNCC (2007) Information Sheet on Ramsar Wetlands (RIS) UK11074 Thursley and Ockley Bogs

Ecological Pathway	Assessment	Likely Significant Effect?
Air Quality	No major roads lie within 200m of the Ramsar at any point and so there will not be a significant increase in traffic in close proximity to the Ramsar. It is therefore considered that the development will not have an effect on the Ramsar due to air quality.	No

WEALDEN HEATH PHASE II SPA**Qualifying Features****Table 10: Qualifying Features of Wealden Heath Phase II SPA**

Designation	Qualifying Features
SPA ^a	Under Article 4.1 of the Birds Directive are nationally important breeding populations of: • Nightjar <i>Caprimulgus europaeus</i> • Woodlark <i>Lullula arborea</i> • Dartford Warbler <i>Sylvia undata</i>

Threats and Pressures

3.12 The most important development-related impacts and activities threatening the condition of the SPA:

- Recreational disturbance
- Hydrological changes
- Invasive non-native species
- Nitrogen deposition (due to changes in air quality)

Ecological Pathways

3.13 The ecological pathways typically associated with residential development, which could arise from the proposals alone (not in combination with others), and have the potential to affect the SPA are detailed below:

Table 11: Wealden Heath Phase II SPA Designations Ecological Pathways and HRA Screening Conclusions - Alone

Ecological Pathway	Assessment	Likely Significant Effect?
Recreational Pressure	Visitor surveys undertaken by UE Associates indicate that the recreational zone of influence for the Wealden Heaths Phase II SPA is relatively restricted, with the mean distance travelled for all access points monitored being less than 7km. It is therefore unlikely that the development will result in any significant increase in recreational pressure.	No
Hydrological Changes	There are no hydrological links between the Site and the SPA and the Site is sufficiently distant / separated from the SPA for increased surface run-off not to have a significant effect on the designated site.	No
Invasive Non-Native Species	No invasive, non-native species have been recorded onsite, therefore it is extremely unlikely that the proposals could lead to a significant effect on the SPA through this impact pathway.	No
Air Quality	No major roads lie within 200m of the Ramsar at any point and so there will not be a significant increase in traffic in close proximity to the Ramsar. It is therefore considered that the development will not have an effect on the Ramsar due to air quality.	No

^a JNCC (1998) Natura 2000 Standard Data Form: UK9012132 Wealden Heaths Phase II

4.0 STAGE TWO: APPROPRIATE ASSESSMENT

- 4.1 The Test of Likely Significant Effect (TOLSE/Screening – Stage One) has scoped out all impacts on the European sites from the proposed development except for:

Table 12: Likely Significant Effects to International Designations

Designation	Likely Significant Effects
Thames Basin Heaths SPA	Recreational Pressure
Thursley, Hankley and Frensham Commons SPA	
Thursley and Ockley Bogs Ramsar	

Recreational Pressure

- 4.2 Policy P5 of the Local Plan requires that all proposals for new residential development within the 5km zone of influence of The Thames Basin SPA must comply with the relevant Strategic Access Management and Monitoring Strategy (SAMMs) and must also provide, improve / maintain a Suitable Alternative Natural Greenspace (SANG)⁹. The SAMMs strategy aims to mitigate potential recreational disturbance to the breeding bird populations protected by the SPA, resulting from increased recreational pressure from new residential developments in combination. A financial contribution, in accordance with the applicable tariff, will be provided by the development to support the long-term implementation of the SAMMs. This contribution will be secured through a Section 106 agreement before the development commences. The current 2025-26 tariff requires a payment of £412.57 per occupant.
- 4.3 The proposed development must also provide, improve / maintain a SANG which meets the SANG criteria. This will provide a range of recreational opportunities for future residents and those in the local area, reducing the need to travel to nearby designated sites. The proposed development will not provide a SANG onsite and all council owned SANGs within the catchment area of the Site are at capacity. Instead an offsite SANG within the relevant catchment area will be located and capacity will be purchased. Currently, Wood Street Knoll SANG, approximately 3.6km east, is being considered, with discussions with the landowner underway.
- 4.4 Thursley, Hankley and Frensham Commons SPA has a ZOI of 9km, whereas Thursley and Ockley Bogs Ramsar does not have a specific ZOI, but it can be assumed that it is similar to that of Thursley, Hankley and Frensham Commons SPA as the designated sites overlap. There are no specific mitigation measures for recreational disturbance on these two designated sites, however, the provision, improvement / maintenance of a SANG will reduce the need for resident to travel to these designated sites.
- 4.5 By complying with the SAMMs and buying capacity from a local SANG, it is considered that the proposed development will not have a significant effect on Thames Basin Heaths SPA, Thursley, Hankley and Frensham Commons SPA and Thursley and Ockley Bogs Ramsar.

⁹ Guildford Borough Council (2017) Thames Basin Heaths Special Protection Area Avoidance Strategy Supplementary Planning Document [Special protection areas - Guildford Borough Council](#) [Accessed: 19.09.25]

APPENDIX A: THE HABITATS REGULATIONS ASSESSEMENT PROCESS

Legislative Background

- 4.6 The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive (the Habitats Directive) 92/43/EEC, and EC Directive on Wild Birds (the Birds Directive) (Council Directive) 2009/147/EEC, into national UK law. The Regulations require the compilation and maintenance of a register of European sites that includes Special Areas of Conservation, as well as Special Protection Areas (SPAs) designated for birds and sites designated as internationally important wetlands under the Ramsar Convention known as "Ramsar Sites". These three designations form a collective Europe wide network of internationally protected sites known as Natura 2000.

The Habitats Directive

- 4.7 Article 6(3) of the Habitats Directive requires an Appropriate Assessment of any plans that could affect a Natura 2000 site.

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of Paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

- 4.8 Article 6(4) of the Habitats Directive discusses alternative solutions, the test of "imperative reasons of overriding public interest" (IROPI) and compensatory measures (transposed to Regulation 60):

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted."

- 4.9 A "likely significant effect" is defined as: "Any effect that may reasonably be predicted...that may affect the conservation objectives of the features for which the site was designated, but excluding trivial or inconsequential effects."

- 4.10 The "integrity of a site" is defined as: "The coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and / or the level of populations of the species for which it was classified."

The Habitats Regulations

- 4.11 In relation to undertaking and consenting plans or projects, the due consideration of Natura 2000 sites is outlined in regulation 61 of the Habitats Regulations, which has led to the HRA process, as follows.

"61. 1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which - (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable them to determine whether an appropriate assessment is required.

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specify.

(4) They must also, if they consider it appropriate, take the opinion of the general public, and if they do so, they must take such steps for that purpose as they consider appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 62 (considerations of overriding public interest), the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given."

The Habitats Regulations Assessment Process

- 4.12 The HRA process has developed into a four stage process as follows:

- Stage One: Screening - also known as the Test of Likely Significant Effect (TOLSE). If the Competent Authority cannot screen out a *likely significant effect*, an Appropriate Assessment is required.
- Stage Two: Appropriate Assessment - the Competent Authority will only agree to plans or projects that will not affect the *integrity* of a European site also known as the "Integrity Test".
- Stage Three: Alternative Solutions - assesses any alternative solutions of a potentially damaging plan or project that failed the Integrity Test, and if it is determined there are no alternative solutions, the project cannot be agreed to and it will either need to be changed or refused.
- Stage Four: The final stage may allow a plan or project to proceed if after failing stage three if it is for Imperative Reasons of Overriding Public Interest, and only if suitable compensatory measures are secured.

Key Case Law in relation to Test of Likely Significant Effect

- 4.13 The following are some relevant case law judgement quotes in relation to “likely Significant Effect” which are of relevance for a Stage 1 screening.
- 4.14 EC Case C-127/02 – Waddenvereniging and Vogelsbeschermingvereniging – the “Waddenzee Judgement” (paras 45, 47 and 48)
- “...any plan or project ... is to be subject to an appropriate assessment ... if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects.”*
- “Where plan or project has an effect on that site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on that site.”*
- “In assessing the potential effects of a plan or project, the significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project”*
- 4.15 Boggis v Natural England [2009] EWCA Civ 1061 20th October 2009 (para 36 and 37)
- “Notwithstanding the word “likely” ... is not that significant effects are probable, a risk is sufficient.” “...a claimant who alleges that there was a risk which should have been considered by the authorising authority so that it could decide whether that risk could be “excluded on the basis of objective information”, must produce credible evidence that there was a real, rather than a hypothetical, risk which should have been considered.”*
- 4.16 R (on application of An Taisce) v SoS [2014] EWCA Civ 1111 1st August 2014 (paras 38 and 39)
- “The word “likely” ... implies at least some degree of flexibility. There comes a point when the probability... of a significant effect is so remote that it ceases to be “likely”, however broad the concept of likelihood.”*
- “The competent authority does not have to be satisfied that there is no risk, however remote...”*
- 4.17 EC Case C-258-11 Reference for a preliminary Ruling, Opinion of Advocate General Sharpston ‘Sweetman’ (Para 48)
- “The requirement that the effect in question be “significant” lays down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by article 6(1), activities on or near the site would risk being impossible by reason of legislative overkill.”*
- 4.18 Bagmoor Wind Ltd v Scottish Ministers [2012] CSIH 93 7th December 2012 (para 45)
- “The requirement for objective information at the preliminary examination is not to be equated with a need for scientific knowledge. The Court only refers to “the best scientific knowledge” in the context of the appropriate assessment (para [61]). “Objective”, in this context, means information based on clear verifiable fact rather than subjective opinion.”*
- 4.19 R (Hart District Council) v Secretary of State for the Communities and Local Government [2008] EWHC 1204 (Para 55 and 76)
- “If the competent authority does not agree with the proponents’ view as to the likely efficacy of the proposed mitigation measures, or is left in some doubt as to the efficacy, then it will*

require an 3 appropriate assessment because it will not have been able to exclude the risk of a significant effect on the basis of objective information ..."

"The competent authority is not considering the likely effect of some hypothetical project in the abstract. The exercise is a practical one which requires the competent authority to consider the likely effect of the particular project for which permission is being sought. If certain features ...have been incorporated into that project, there is no sensible reason why those features should be ignored at the initial, screening, stage merely because they have been incorporated into the project in order to avoid, or mitigate, any likely effect...."

Note on Functionally Linked Land

- 4.20 "Functionally Linked Land" or "Functional Linkage" is a term that refers to the potential for habitat away from the designation boundaries of a Natura 2000 site, that is considered to have a "role" or "function" for a qualifying feature "beyond the boundary". This is covered in the Guidance document on the strict protection of animal species of Community interest under Habitats Directive 92/43/EEC 2007. Paragraph 7 states:

"Assessing and evaluating the conservation status of habitats and species within the Natura 2000 network is therefore not always enough, especially when the occurrences of habitats or species are only partly covered by the network, maybe even in some cases only to a relatively small extent."

- 4.21 A case law example of where the concept of Functionally Linked Land (FLL) has been applied was RSPB and others v SoS and London Ashford Airport Ltd [2014] EWHC 1523 16th May 2014 (para 27)

"There is no authority on the significance of the non-statutory status of the FLL. However, the fact that the FLL was not within a protected site does not mean that the effect which a deterioration in its quality or function could have on a protected site is to be ignored. The indirect effect was still protected. Although the question of its legal status was mooted, I am satisfied, as was the case at the Inquiry, that while no particular legal status attaches to FLL, the fact that land is functionally linked to protected land means that the indirectly adverse effects on a protected site, produced by effects on FLL, are scrutinised in the same legal framework just as are the direct effects of acts carried out on the protected site itself. That is the only sensible and purposive approach where a species or effect is not confined by a line on a map or boundary fence. This is particularly important where the boundaries of designated sites are drawn tightly as may be the UK practice."

Note on the Sweetman ruling "people over Wind" and definition of "mitigation"

- 4.22 The *People Over Wind* judgement (Peter Sweetman v Coillte Teoranta (C-323/17)), in April 2018, changed the way mitigation is viewed during the HRA Stage One screening i.e. the Test of Likely Significant Effect. The ruling was based on the view that allowing mitigation measures to be considered at the screening stage allows projects to avoid an Appropriate Assessment (Stage Two), when is meant to be fuller and more detailed analysis of any proposed mitigation measure and whether or not there would be an effect on the integrity of the European site. The ruling stated:

"Taking account of such measures at the screening stage would be liable to compromise the practical effect of the Habitats Directive in general, and the assessment stage in particular, as the latter stage would be deprived of its purpose and there would be a risk of circumvention of that 4 stage, which constitutes, however, an essential safeguard provided for by the directive." (paragraph 37 of the judgment)"

- 4.23 This has made what constitutes "mitigation" in relation to the European site and what would be considered integral to the scheme. The PINS Notes 05/2018 *Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman v Coillte Teoranta* provides some clarification as follows:

"The implication of the CJEU judgment is that competent authorities cannot take account of any integrated or additional avoidance or reduction measures when considering at the HRA screening stage whether the plan or project is likely to have an adverse effect on a European Site.

The screening stage must be undertaken on a precautionary basis without regard to any proposed integrated or additional avoidance or reduction measures. Where the likelihood of significant effects cannot be excluded, on the basis of objective information the competent authority must proceed to carry out an AA to establish whether the plan or project will affect the integrity of the European site, which can include at that stage consideration of the effectiveness of the proposed avoidance or reduction measures."

- 4.24 PINS Notes 05/2018 It does on to further explain:

"It should be noted that there is no authoritative definition of what constitutes an integrated or additional avoidance or reduction measure and this should be considered on a case by case basis. If a measure is being introduced to avoid or reduce an effect on a European site then it can be viewed as mitigation. It may be helpful to consider whether a proposal could be considered integral to a plan or whether it is a measure to avoid harm. For instance, the HRA report could identify European sites whose designated features are vulnerable to disturbance caused by people visiting the site. If evidence presented in the HRA report and during the examination demonstrates that the housing allocation is too far from the European site to lead to increased visitor numbers then it could be concluded that there is no pathway for likely significant effects to occur. However if the HRA report determines that the housing allocation would be likely to increase visitor use of the European site and relies on measures which reduce visitor pressure (such as securing land to provide a buffer to the European site or ensuring footpaths and car parks are located away from the site) to avoid or reduce likely significant effects an AA will be required to assess whether the plan will affect the integrity of the European site."

- 4.25 The interpretation of the above being taken by legal professionals appears to be that if it can be argued that mitigation, whether integrated or additional, is an "avoidance or reduction" measure directly due to an ecological pathway to a Natura 2000 site, then an Appropriate Assessment is required. If it is truly integrated into the proposals for other reasons, for example green space due to an unrelated protected species mitigation licence, as was the case with UK High Court ruling in August 2018 (*R (on the application of Langton) v Secretary of State for Environment, Food and Rural Affairs, Natural England* [2018] EWHC 2190 Admin) in relation to migration within a badger cull licence, then the mitigation is fully integrated and would not automatically trigger the requirement for an Appropriate Assessment.

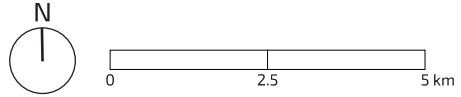
Notes on The Dutch Nitrogen Cases (C-293/17 and C294/17)

- 4.26 The Dutch Nitrogen (Joined Cases C-293/17 and C-294/17 *Coöperatie Mobilisation for the Environment UA and Others v College van gedeputeerde staten van Limburg and Others*) concerned nitrogen emissions and deposits from farming practices harming European sites.
- 4.27 The meaning of “project” was considered and the CJEU held that whilst EIA projects would all fall within article 6(3), the wider approach to “projects” under article 6(3) means that there may be “projects” which are not within EIA definition: e.g. the grazing of cattle and application of fertilisers.
- 4.28 It was stated that:
- “Article 6(3) of the Habitats Directive must be interpreted as not precluding national programmatic legislation which allows the competent authorities to authorise projects on the basis of an ‘appropriate assessment’ within the meaning of that provision, carried out in advance and in which a specific overall amount of nitrogen deposition has been deemed compatible with that legislation’s objectives of protection. That is so, however, only in so far as a thorough and in-depth examination of the scientific soundness of that assessment makes it possible to ensure that there is no reasonable scientific doubt as to the absence of adverse effects of each plan or project on the integrity of the site concerned, which it is for the national court to ascertain.”*
- “Article 6(3) of Directive 92/43 must be interpreted as meaning that an ‘appropriate assessment’ within the meaning of that provision may not take into account the existence of ‘conservation measures’ within the meaning of paragraph 1 of that article, ‘preventive measures’ within the meaning of paragraph 2 of that article, measures specifically adopted for a programme such as that at issue in the main proceedings or ‘measures, in so far as those measures are not part of that programme, if the expected benefits of those measures are not certain at the time of that assessment.”*
- 4.29 The Key point here is that where the conservation status of a protected habitat is unfavourable the possibility of authorising activities which may subsequently compromise the ability to restore the site to favourable condition and achieve the conservation objectives is “necessarily limited”.
- 4.30 By informing the way in which Reg. 63 of the Habitats Regulations 2017 should apply to pollution-related matters, the Dutch Nitrogen Cases have resulted in the need for greater scrutiny of the effects of plans or projects that are likely to, either directly or indirectly, increase nutrient loads to internationally important sites (i.e. SACs, SPAs and Ramsar Sites) where a reason for unfavourable condition is an excess of a specific pollutant.

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Key

- Site Boundary
- 15km Buffer
- SAC
- RAMSAR
- SPA

date	09/10/25	drwn/chkd	LEB / REM
client	Gleeson Land Ltd		
project	Shortlands Farm, Ash Surrey		
title	EUROPEAN DEISGNATED SITES WITHIN 15KM	scale	1:120,000 @ A3
number	FIGURE 1	rev	-