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Gladman Developments Ltd

Land off Scamps Hill, Lindfield

ECOLOGICAL IMPACT ASSESSMENT

July 2024

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1.0 NON-TECHNICAL SUMMARY

Site Context
• FPCR were commissioned by Gladman Developments Ltd to undertake an Ecological Appraisal at Land off Scamps Lane, Lindfield in 2020. • Proposals are for a residential development of 90 dwellings and associated infrastructure and greenspace. • A Preliminary Ecological Appraisal (PEA) was completed in 2020, with habitats classified using the Phase 1 Habitat methodology (JNCC 2010). An update UKHab survey and river condition assessment of Scrase Stream were completed in October 2023. • Further species-specific surveys were undertaken to inform this assessment in 2020, followed by update surveys in 2023 and 2024.
Ecological Baseline
• The site is linked to Eastern Road Local Nature Reserve (LNR) and Scrase Valley LNR by Scrase Stream, which runs along the northern boundary of the blueline ownership boundary (Figure 3). • The site comprised three fields with species-poor neutral grassland bounded by mature hedgerows and tree lines. All hedgerows were habitats of principal importance (NERC S41). Small areas of scrub and scattered trees were also present. • Some evidence of badger foraging has been identified on site, but no setts. • Moderate levels of common and widespread bat species have been shown to use the linear habitats on site, along with a single barbastelle. • The bird assemblage found using the site was made up of common and widespread species which are typical of grassland and edge-of-woodland habitat. • Three ponds and one ditch were located within 250m of the red line boundary; all of which returned negative eDNA results for great crested newts (GCN). • The hedgerows, scrub and neighbouring woodland have the potential to support dormice. Surveys to date have not found any evidence of this species, but surveys will continue until October 2024. • A single grass snake was found in the north, indicating a low reptile population on site. • A survey of the Scrase Stream and Northland Brooks did not find any evidence of riparian mammals. A second survey is scheduled for August 2024. • The proposals provide a biodiversity net gain (BNG) of 13.55% for habitats and 19.7% for hedgerows, as demonstrated by the Statutory Metric (*Appendix M*). • Scrase Stream was assessed as being in poor condition. The proposals will not change the condition from poor (*Appendix N*).
Assessment Conclusions
• The assessment has demonstrated that in the absence of mitigation, proposals would lead to, at most, **minor adverse effects significant at a local level** for Important Ecological Features (IEFs) on or close to site. • A combination of intrinsic mitigation, targeted mitigation, compensation, and ecological enhancement detailed within this EcIA have demonstrated that proposals will lead to short-term minor adverse effects on the majority of IEFs on site. However, in the **mid- to long-term, negligible to minor positive effects** are anticipated for all IEFs.

2.0 INTRODUCTION

2.1 The following report has been prepared by FPCR Environment & Design Ltd on behalf of Gladman Developments Ltd. Its purpose is to provide an Ecological Impact Assessment (EcIA) for a planning application for Land off Scamps Hill, Lindfield (central OS Grid Reference: TQ 35218 24891), hereafter referred to as 'the site'. The site refers to the survey area (red line boundary) and not the total area of land under the same ownership (blue line boundary).

2.2 To inform this assessment, a suite of ecological surveys has been undertaken on the site. The full reports (FPCR, 2024) are appended to this report.

Site Context

2.3 The site is located on the south-west edge of the village of Lindfield, West Sussex. The survey area (red line boundary) measures approximately 6.6ha and is comprised of three grassland field compartments bounded by mature hedgerows and trees.

2.4 This site is surrounded by residential development, woodland and agricultural land. Northlands Brook runs along the south-east boundary and Scrase Stream lies to the north. Scamps Hill Road demarcates the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-east boundary.

Site Proposals

2.5 An outline planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

Scope

2.6 The purpose of this EcIA is to:

- provide a summary of the methods and results of all 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.
- set out the requirements for post-construction monitoring.

3.0 LEGISLATION AND POLICY

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

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (The Habitat Regulations) in relation to Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and European Protected Species (EPS).
- The Wildlife and Countryside Act 1981 (as amended) (WCA) in relation to Sites of Special Scientific Interest (SSSIs) and WCA protected species.
- Environment Act 2021 (EnvA 21) in relation to Biodiversity Net Gain (BNG).
- Protection of Badgers Act 1992 (Badger Act).
- Natural Environmental and Rural Communities Act 2006 (NERC) in relation to habitats and species of principal importance.
- Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995 (Hedge Regs).
- National Planning Policy Framework (NPPF) (2021) as guiding principles for how the planning system deals with biodiversity including SACs, SPAs and Ramsar Sites referred to as “Habitat Sites” or the Habitat Site Network, the “mitigation hierarchy” and irreplaceable habitats such as Ancient Woodland.

3.2 A review of the Mid Sussex District Plan (2014-2031) has been conducted. The following policies address the Local Authority’s obligations in relation to statutory protected sites, non-statutory protected sites, protected species, species and habitats of principle importance, and non-native species:

- Policy DP17 – Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC)
- Policy DP37 – Trees, Woodland and Hedgerows
- Policy DP38 – Biodiversity

4.0 METHODOLOGY

Desk Study

4.1 To compile an ecological baseline, information was gathered from:

- Sussex Biodiversity Records Centre (SxBRC)
- Multi Agency Geographic Information for the Countryside (MAGIC)
- Satellite imagery from Google Earth

4.2 The search areas around the site for biodiversity information, in relation to zones of influence and species/site significance, were as follows:

- 15km for sites of International Importance, e.g. SACs, SPAs, Ramsar sites.
- 2km for sites of National or Regional Importance, e.g. SSSIs.
- 1km for sites of County Importance, e.g. Local Wildlife Sites (LWS), and species records, e.g. protected and notable species.

Habitat Survey

4.3 The preliminary ecological appraisal of the site was completed in November 2020. This involved a systematic walkover of the site to classify habitats present using the Phase 1 Habitat survey methodology[1]. At the same time, any evidence of, or suitable habitats for, protected, notable and invasive species were recorded.

4.4 An update habitat survey was completed in October 2023 using the UKHab methodology[2]. At the same time, a condition assessment of the habitats was completed to inform the BNG assessment of the site (*Appendix M*).

Faunal Surveys

4.5 Following the initial assessment of the site for protected/notable species potential, a series of further surveys were completed in 2021, 2023 and 2024. These are summarised in *Table 1*. Detailed methods are contained within the survey reports: *Appendices E-L.*

Table 1: Overview of Faunal Surveys

Ecological Feature	Overview of Surveys Conducted
Badgers	Walkover survey for signs of presence in 2020 and 2024.
Bats	Ground-level tree assessment in 2023.
	Seasonal activity transect surveys in October 2023, May and July 2024.
	Seasonal static detector surveys with one detector deployed in a fixed location in October 2023 and three detectors deployed in April-June 2024.
Birds	Breeding – six surveys were completed between March-June 2024.
	Wintering – a scoping survey was completed in November 2020 and 2023.
Great Crested Newts	Habitat Suitability Index (HSI) survey and eDNA survey of accessible ponds within 250m of site in April 2021.
Hazel Dormice	Presence/likely absence surveys using nest tubes between April-June 2024. Further monthly surveys scheduled until October 2024.

[1] JNCC (2010) Handbook for Phase 1 habitat survey – a technique for environmental audit. JNCC, Peterborough.

[2] UKHab Ltd (2023) UK Habitat Classification Version 2.0: www.ukhab.org

Ecological Feature	Overview of Surveys Conducted
Reptiles	Presence/likely absence surveys using artificial refugia in April, May and July 2024.
Riparian Mammals	A walkover survey of Scrase Stream and Northland Brooks completed in May 2024. An additional survey is scheduled for August 2024.

Impact Assessment

4.6 The assessment of significant ecological effects was undertaken in accordance with CIEEM EcIA guidelines[3]. In summary, the process involves:

- **Establish Baseline** – this is based on desk study and field surveys and 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** – this is based on the importance of the ecological feature, magnitude of the effect and sensitive of the features considered. This is description-based rather than applying a matrix and considers construction and operation effects only where relevant. The assessment assumes the proposed layout, intrinsic mitigation, and routine ecological mitigation normally conditioned have been actioned 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. Monitoring will be considered where applicable.
- **Future Baseline and Residual Effects** – final conclusionary statements for the short, medium, and long term.

Limitations

4.7 The Phase 1 Habitat survey in November 2020 and the UKHab survey in 2023 were undertaken outside of the optimal survey season, where the grassland types and conditions were based on indicator species present at the time. The same conclusion was drawn in 2020 and 2023, with species lists from both surveys used to inform the classification of the grassland types. As such, the timing of the surveys has not impacted the ability to classify the habitat types on site.

[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

5.1 The following designations are present in relation to the site (*Figure 1*):

- Ashdown Forest SAC and SPA approximately 8km north-east
- Eastern Road LNR approximately 60m north
- Scrase Valley LNR approximately 330m south-west
- Walstead Cemetery LWS approximately 250m south-east
- Costells, Henfield and Nashill Woods LWS approximately 850m south-east
- Western Road Cemetery LWS approximately 1.3km south-west

5.2 Little Walstead Wood adjacent to the eastern corner of the site is ancient semi-natural woodland.

5.3 Numerous species records within the last 10 years were returned from SxBRC and MAGIC and those relevant to the habitats on site are summarised in *Figure 2*.

5.4 Recent bird records with only two (10km grid square) or four (1km grid square) figure grid references, which could not be mapped accurately, and relevant to the habitats on site are summarised in Table 2:

Table 2: Low Resolution Bird Records

Species	Status/Protection	Year(s)	No. of records
Skylark *Alausa arvensis*	NERC S41 BoCC Red List	1986-2017	13
Hawfinch *Coccothraustes coccothraustes*	NERC S41 BoCC Red List	1984-2018	23
Yellowhammer *Emberiza citrinella*	NERC S41 BoCC Red List	1994-2018	25
Brambling *Fringilla fringilla*	WCA Sch1	1989-2018	10
Linnet *Linaria cannabina*	NERC S41 BoCC Red List	2009-2017	13
Red kite *Milvus milvus*	WCA Sch 1	2010-2018	8
Barn owl *Tyto alba*	WCA Sch 1	1982-2019	17
House sparrow *Passer domesticus*	NERC S41 BoCC Red List	1986-2018	110
Firecest *Regulus ignicapilla*	WCA Sch1	2003-2017	3
Starling *Sturnus vulgaris*	NERC S41 BoCC Red List	1986-2018	60
Redwing *Turdus iliacus*	WCA Sch1 BoCC Amber List	1990-2018	43
Song thrush *Turdus philomelos*	NERC S41 BoCC Amber List	1986-2019	141
Fieldfare *Turdus pilaris*	WCA Sch1 BoCC Red List	1989-2018	27

Habitats

5.5 The Habitats and target notes described below are illustrated in *Figure 3*. Site photographs can be found in *Appendix B* and a botanical species list is provided in *Appendix C*.

Modified grassland

5.6 The southern field parcel (G1) comprised modified grassland due to the dominance of palatable grasses and the managed short sward. The grassland was assessed as being in poor condition as it was species-poor, had a uniform short sward and supported less than 1% bare ground.

Other neutral grassland

5.7 The middle (G2) and northern (G3) field parcels were classified as other neutral grassland due to a greater range and cover of herbs. G2 showed signs of management with a short sward height, although there were some tussocks present.

5.8 G3 is split by the red line boundary, with the northern portion as part of the blue line ownership boundary but not on site. G3 had a similar species composition to G2 but with larger areas of tall forbs, dominated by soft rush *Juncus effusus* and creeping thistle *Cirsium arvense*.

Trees

5.9 There were 28 trees scattered across the site and one tree present in the north within the blue line ownership boundary. These were a mixture of medium and large sized trees, mature and semi-mature specimens and in moderate-good condition.

Scrub

5.10 A dense area of bramble-dominant scrub (BS1) was present in the centre of site between fields G1 and G2. Two scrub parcels were also present in the northern part of field G3 outside the red line boundary: blackthorn *Prunus spinosa* scrub (B) in the centre and bramble *Rubus fruticosus* scrub (BS2) adjacent to Scrase Stream.

Hedgerows

5.11 There were four hedgerows along field boundaries on site (H1-H4), all of which supported a variety of native species (at least 80% of the canopy). As such, they were classified as habitats of principal importance (NERC S41). None were considered 'important' under the Hedgerow Regulations (1997) due to a lack of high species diversity and associated features.

Line of Trees

5.12 Two tree lines were present along the south (TL1) and south-east (TL2) site boundaries, and one was present in the north of the blue line boundary (TL3) adjacent to Scrase Stream. They consisted of mature and semi-mature specimens and were in poor-moderate condition due to canopy gaps, few ecological niches and disturbed margins.

Streams

5.13 Two off-site streams were present along the blue line ownership boundary and over 10m from the red line site boundary.

5.14 Scrase Stream, along the north-west blue line boundary, flows to the east and connects two LNRs on either side of Scamps Hill Road. It was approximately 2-3m wide with 2m high banks. The water

depth varied along its length providing areas of exposed substrate and slow flow. The western part of the stream supports 90° engineered banks made of timber panels and galvanised posts. Himalayan balsam *Impatiens glandulifera* was recorded on its banks in 2023.

5.15 Northlands Brook, along the south-east blue line boundary, flows north under Scamps Hill Road and into Little Walstead Wood. It is approximately 0.5m wide, less than 40cm deep and sectioned by weirs along its length. The banks were densely vegetated in the south, becoming less vegetation further north due to overshadowing by woodland. Varying depths provided areas of exposed substrate and slow flow.

Protected and Notable Species

5.16 Following the preliminary ecological appraisal, the site was considered to have the potential to support the following species/groups:

- Bats
- Breeding and wintering birds
- Eurasian badger *Meles meles*
- Hazel dormice *Muscardinus avellanarius*
- Reptiles
- Riparian mammals
- Western European hedgehog *Erinaceus europaeus*

5.17 Further faunal surveys were undertaken for the above in 2021 and 2023-2024. Full details of the further surveys are provided in the appended reports. A species assessment of the site is summarised below:

Table 3: Protected and Notable Species Assessment

Species/ Group	Survey Result and Assessment Summary
Badgers (Appendix E)	A range of suitable badger habitats were present on site, including grassland, scrub and hedgerows. Whilst no setts were identified on site between 2020-2024, there is potential for the badgers to use the site for foraging and commuting.
Bats (Appendix F)	Roosting – Five trees on site were found to contain potential roosting features (PRFs) for bats (T13, T15, T25-27).
	Foraging and Commuting - Habitats suitable for foraging and commuting bats were restricted to the field boundaries in the form of hedgerows, treelines, scrub and neighbouring watercourses. Common and widespread species were recorded on site at moderate levels in 2023-2024 along with a single barbastelle pass.
Breeding birds (Appendix G)	Nesting opportunities are present within the hedgerows, trees and scrub on site. The breeding bird assemblage was made up of common and widespread species which are typical of grassland and edge-of-woodland habitat.
Wintering Birds (Appendix H)	Suitable on-site habitats for overwintering birds include rough grassland, scrub, scattered trees, tree lines. The off-site woodlands and Scrase Stream provide additional suitable habitat. The wintering bird surveys in November 2020 and 2023 identified 24 species and 13 species within the site respectively. However, none were large over-wintering flocks or notable farmland species.
Great crested newts (Appendix I)	No ponds were present on site, but three ponds (P1-P3) and a ditch were identified within 250m. Ponds P1 and P2 were assessed as having good habitat suitability for GCN, whilst P3 was below average. All ponds and the ditch along the eastern edge of Little Walstead Wood were tested for GCN eDNA in 2021. All returned a negative result indicating GCN absence. Connectivity is restricted to site by a road and watercourses. GCN are likely absent from site.
Hazel dormice (Appendix J)	Scrub, hedgerows and tree lines provide suitable habitat for foraging, commuting and nesting dormice. There are also woodlands and connective hedgerows in the surrounding area. No evidence of dormice has been found to date, but further surveys are scheduled between July-October 2024.

Species/ Group	Survey Result and Assessment Summary
Hedgehog	Hedgerows, scrub and grassland provide foraging and commuting opportunities for hedgehogs, with connectivity to suitable habitats in the wider landscape. No evidence of hedgehogs was found on site in 2020-2024 but multiple records exist within 1km of site; the closest being 260m north. As such, there is potential for hedgehogs to use the site in low numbers.
Reptiles (Appendix K)	Grassland, scrub and hedgerows provide suitable habitat for reptiles. Surveys in 2024 identified a single grass snake on site. As such, the site is likely to support only a low reptile population.
Riparian mammals (Appendix L)	Scrase Stream and Northland Brooks provide some suitable habitat for both otter and water vole. A survey in May 2024 found no evidence of any riparian mammals. A second survey is scheduled for August 2024, in line with guidance.

Likely Future Baseline Conditions

5.18 Where proposals do not proceed, it is considered that habitats on site would likely remain in the same condition as described. The fields and hedgerows are actively managed; therefore, it is reasonable to assume this would continue in the absence of development.

5.19 Without significant changes in habitats, the site will likely continue to support moderate levels of common bat species, breeding birds, a low reptile population, hedgehogs and potentially dormice (further surveys scheduled).

5.20 Badgers are highly mobile and known to be present in the local area. As such, it is expected that they may commute through and forage on site.

Summary of Important Ecological Features

5.21 The surveys have demonstrated that the site supports a range of important ecological features. These are summarised in *Table 4* and assigned a geographic context based on survey results and relevant legislation and policy.

Table 4: Important Ecological Features On-Site

Important Ecological Feature	Relevant Legislation/ Policy	Geographic Scale	Rationale
Local Nature Reserve (LNR)	NPPF	County	Eastern Road LNR lies approximately 60m north of site and is connected via Scrase Stream.
Ancient woodland	NPPF	County	Ancient woodlands are “irreplaceable habitats” under the NPPF. Little Walstead Wood lies directly adjacent to the eastern corner of the site.
Hedgerows	NERC S41	Local	Identified as habitats of principal importance as they comprised >80% native woody species.
Bats	CHSR, WCA	Local	Moderate levels of common and widespread species identified commuting and foraging on site, particularly along the boundaries. A single barbastelle was also recorded on site.
Dormice	CHSR, WCA, NERC S41	Local	Local records and habitats on site indicate dormice are likely to be present. Surveys ongoing in 2024.
Reptiles	WCA, NERC S41	Local	A low grass snake population is present on site.
Badgers	PBA	Site	Present in the local area and likely to use the habitats on site given their mobile nature.
Birds	WCA	Site	On-site habitats were suitable for a range of common and widespread generalist species.
Hedgehogs	NERC S41	Site	No evidence found on site but known in local area.

5.22 Species/groups found to be likely absent from site are not IEFs and are therefore not considered further. These include:

- Great crested newts – Surveys of the surrounding ponds and ditch within 250m of site indicated GCN absence. There are no recent records within 1km of site and the connectivity to site is limited due to the road and neighbouring watercourses. As such, the development will not significantly impact this species.
- Riparian mammals – Surveys so far have not identified any evidence of otter or water vole in either watercourse bordering the site. In addition, the proposals will provide significant buffers between Scrase Stream, Northland Brooks and the development so that no direct impacts are predicted. Both watercourses are already in a poor condition, but measures will be taken on site to prevent significant impacts to drainage and water quality.

5.23 Other ecological features relating to site that are not considered important are:

- Internationally designated sites – Ashdown Forest SPA and SAC is approximately 8km north-east of the site. In accordance with Mid-Sussex policy, the site is not included within the recognised 7km zone of influence. Given the scale of the development and the distances involved, the proposals will not significantly impact the Ashdown Forest.
- Low value habitats – The site is dominated by grassland which is regularly managed and has been assessed in poor condition. As such, it has limited potential to support a range of wildlife.

6.0 IMPACT ASSESSMENT

Development Proposals and Intrinsic Mitigation

6.1 The proposals have been assessed against the current ecological baseline to review the potential impacts anticipated and to provide recommendations for mitigation, compensation and/or ecological enhancement where appropriate. The assessment of impacts and recommendations for mitigation are based on the most up to date Illustrative Framework Plan for the Site (FPCR, Drawing ref: *9432-L-02).*

6.2 The proposed scheme includes the following intrinsic ecological avoidance, mitigation and enhancement measures:

- The eastern field will be retained as greenspace with tree planting and meadow creation. This will ensure the ancient woodland is adequately buffered from the development. The mown circular paths will also provide recreational opportunities for future residents on site.
- Mature trees will be retained, and root protection areas adequately buffered.
- New tree and shrub planting along the site boundaries, including the eastern corner to buffer the ancient woodland.
- A minimum 5m buffer will be provided along the length of retained hedgerows to protect them from damage and to allow sufficient room for management.
- A SuDS basin in the northern corner will offer opportunities for habitat creation and increased habitat diversity.

Core Documents

6.3 The following lists the core documents that will secure the mitigation and enhancement measures described in this report. They can be secured through appropriately worded pre-commencement planning conditions attached to the outline application, to be submitted and discharged at Reserved Matters once the detailed layout and landscape schemes have been finalised.

1. Construction and Environmental Management Plan for Ecology (CEMP): 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.
2. Habitat Management and Monitoring Plan (HMMP): this provides planting/landscape information that includes both the landscape and ecology features and their management for an appropriate period. The document will include ecological enhancement and management information as appropriate to demonstrate how the biodiversity net gain measures will be delivered and can also include the final Ecological Mitigation and Enhancement Plan that shows location of wildlife boxes and other proposed features.
3. A lux contour lighting plan produced by a qualified lighting engineer at Reserved Matters in consultation with an ecologist. The lighting scheme should meet the target Lux levels on the habitat features described in the impact assessment below, to ensure the features described remain accessible to light-sensitive bats.

Assessment of Likely Significant Effects on Important Ecological Features

6.4 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 to IEFs and whether any of these will lead to a likely significant effect in *Table 5*.

6.5 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: Eastern Road LNR	
Assessment of Impacts	Eastern Road LNR lies approximately 60m north of site and is connected via Scrase Stream. A minimum 15m buffer will be retained between Scrase Stream and the development to reduce impacts from run-off and potential pollution, along with the SuDS basin to be created on site. As such, the LNR will not be directly impacted by the development during the construction or operational phases. The reserve is publicly accessible and there are paths for visitors. It is managed regularly by local volunteers. It is possible that the development could lead to an increase in recreational pressure on the habitats at this site. However, the circular routes to be created in the eastern part of the site and the play area in the north are more likely to be used by the majority of new residents. There is also no direct route from the site to the LNR and the route passes Lindfield Common, a large greenspace, which is closer and much larger, and therefore more likely to be used by most walkers and families.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	A CEMP should be produced to ensure no significant impacts on the Scrase Stream and connected habitats, including the LNR, during construction. A HMMP for the site will ensure the greenspace on site is managed appropriately to attract residents and reduce the likelihood of travelling off-site for recreational opportunities.
Compensation	None
Enhancement	None
Residual Effects	**Negligible**
IEF: Little Walstead Wood Ancient Woodland	
Assessment of Impacts	Little Walstead Wood lies immediately adjacent to the eastern corner of the site. However, the retention of this area of the site as greenspace along with additional tree and shrub planting along the boundaries will ensure the woodland is buffered from any adverse impacts from the development. In addition, this woodland is not publicly accessible by foot or road. As such, it is not at risk of increased recreational pressure.
Predicted Effect	**Negligible**
Mitigation	None
Compensation	None
Enhancement	None
Residual Effects	**Negligible**
IEF: Hedgerows	
Assessment of Impacts	All hedgerows in site will be retained, except for a small section of H1, which needs to be removed to make way for an access road. New tree and hedgerow planting will take place along the development boundary and in the greenspace to compensate for this loss and enhance the green corridors throughout the site. As such, no likely significant effect is expected from this loss. It is recognised that there will be a short-term loss in the overall presence of mature hedgerows while compensatory planting

	establishes, but this is not considered to be significant given the small-scale loss and the overall abundance of hedgerow and tree line habitats in the local area.
Predicted Effect	**Short-term Minor Adverse at a Local Scale**
Mitigation	To maintain the integrity of the retained hedgerows and avoid their degradation through individual residential management (i.e. removal of sections, excessive cutting by homeowners), it is recommended that hedgerows are not incorporated into boundaries of residential properties and instead are managed as part of the site-wide green infrastructure. A 5m buffer will be maintained around retained hedgerows during construction in-line with recommendations within *BS 5837: Trees in relation to design, demolition and construction*.
Compensation	None
Enhancement	Retained hedgerows will be enhanced with native tree and scrub species. Details will be outlined in the HMMP.
Residual Effects	**Short-term Minor Adverse Effect at a Local Scale** **Mid- to Long-term Negligible to Minor Positive Effect at a Local Scale**
IEF: Bats	
Assessment of Impacts	Most commuting and foraging habitats (hedgerows and tree lines) will be retained. However, a small section of hedgerow H1 will be lost, severing this corridor. Whilst hedgerow planting will compensate for the loss in the mid- to long-term, H1 will remain fragmented by the access road. No roosts are to be lost on site and those trees identified as having roosting bat potential will be retained. Proposals will increase light levels on site through the introduction of street lighting, which would reduce the suitability of retained hedgerows and created habitats.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	The lighting and layout of the development will be designed to minimise light-spill on nearby habitats as part of a sensitive lighting scheme. This will include the maintenance of dark corridors along retained and newly created habitats used by bats for foraging and commuting.
Compensation	None
Enhancement	Woodcrete bat boxes (Schwegler or similar design) will be installed on retained mature trees throughout the site to increase roosting opportunities. Some new residences should have built-in provision for bats, including a combination of tiles, tubes bricks and loft mounted boxes.
Residual Effects	**Short-term Adverse at a Local Scale** **Negligible to Minor Positive mid- to long-term at a Local Scale**
IEF: Dormice	
Assessment of Impacts	The blackthorn and bramble scrub and the hedgerows within the Site contain native species, which have the potential to support hazel dormice, the majority of suitable habitat (hedgerows) will be retained.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	The proposals include the retention of most of the hedgerows on the Site, with only very small losses for access. This is compensated for through the creation of scrub habitats, and the planting of native species-rich hedgerows, which will provide additional habitat for dormice and improve connectivity around the Site and into the surroundings. All retained and newly created hedgerows will be retained outside of curtilage of residential properties managed in a suitable way as to increase the habitats available to dormice. Measures will be included within a HMMP. If dormice are found to be present on site, as part of an EPS mitigation licence, all suitable vegetation removal will be undertaken following precautionary measures, that will also be outlined in a CEMP.
Compensation	None

Enhancement	Thorny species will be included within all new hedgerow and native scrub planting to reduce the likelihood of cat predation. Proposed new native scrub and native hedgerow planting will increase foraging and nesting opportunities for dormice together with increased connectivity across the site and into the wider local area. All enhancements will be detailed within the HMMP.
Residual Effects	**Short-term Adverse at a Local Scale** **Negligible to Minor Positive mid- to long-term at a Local Scale**
IEF: Reptiles	
Assessment of Impacts	The low grass snake population on site was restricted to the north boundary where a green buffer will be retained and maintained. There is, however, a risk that habitat removal will lead to killing or injury of individuals during the construction phase.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	The proposals include the creation of mixed scrub, species-rich neutral grassland and SuDs, and the planting of species-rich hedgerows, which will provide suitable habitat for sheltering, basking and hibernating reptiles. Furthermore, it is recommended that log piles and hibernacula are installed in the GI to the south of the Site and around the SuDS to the north of the Site to provide additional habitat for reptiles. Details will be provided in the HMMP.
Compensation	None
Enhancement	As part of the long-term management of habitats within the site, areas of tussocky grassland will be created by allowing some strips to remain unmown. Signage indicating wildlife areas will also be erected in appropriate locations around the site to inform new residents of the purpose of management i.e. benefits to biodiversity.
Residual Effects	**Short-term Adverse at a Local Scale** **Negligible mid- to long-term at a Local Scale**
IEF: Badgers	
Assessment of Impacts	Badgers have been shown to use the site for foraging and commuting and will likely continue to do so. New habitat creation designed into the scheme, including meadow grassland, tree and shrub planting and an orchard will provide additional foraging resources for this species post-development. However, during construction, there is a risk of badgers becoming trapped in ditches/tunnels.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	During construction, precautions should be taken to prevent badgers and other animals becoming trapped by blocking off pipes and providing excavations with a means of escape.
Compensation	None
Enhancement	In addition to the orchard, it is recommended that other tree planting throughout the site include fruiting species to provide additional foraging for badgers and other wildlife.
Residual Effects	**Negligible**
IEF: Birds	
Assessment of Impacts	The proposals include the loss of large areas of tussocky neutral grassland (G2 and G3), and small lengths of hedgerows. The proposals do include the enhancement of G1 to other neutral grassland, and the creation of areas of native mixed scrub around the boundaries of the Site, as well as the inclusion of 53 small trees, twenty-two of which will be fruiting species. The proposed planting and habitat creation will include species-rich grassland mixes, and flowering and fruiting native woody species which will be beneficial to bird species such as redwing and song thrush, and those typical of urban environs including house sparrow and starling.
Predicted Effect	**Minor Adverse 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. New tree and shrub planting will include thorny species to provide some protection against cats.

Compensation	Where sections of hedgerow are to be lost, new hedgerows will be planted through the site suitable for breeding birds.
Enhancement	The inclusion of green infrastructure planting and the maturation of gardens will lead to additional opportunities for a range of species found on site. The landscape plan should include faunal features including 2 1SP Schwegler sparrow terraces and 2 1B Schwegler (or similar nest boxes). The proposed nest boxes will provide additional nesting opportunities for generalist species. These will be detailed within a LEMP and adequately secured through an appropriately worded Condition attached to planning consent. These also provide protection against predators.
Residual Effects	**Negligible at a Site Scale**
IEF: Hedgehog	
Assessment of Impacts	No evidence was found on site; however, they are known in the local area. Proposals will lead to a greater variety of foraging resources for hedgehog with the creation of new habitats, including hedgerows, meadow grassland and wetland creation. There is an increased risk of road collision with newly created roads; however, this is not expected to be significant given the low-density traffic anticipated. There is also an increased risk of hedgehogs becoming trapped within newly constructed gardens and a reduction in commuting ability.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	All newly created garden fences and boundary treatments will feature a 'hedgehog highway' formed by a 13cm x 13cm hole in strategic locations to allow this species to move through the site and into the surrounding area. The highway and adjacent habitat will be designed in such a way that it discourages hedgehogs from crossing newly constructed roads e.g. through planting and fencing that creates corridors parallel and away from roads. All measures will be included within the HMMP.
Compensation	None required
Enhancement	None
Residual Effects	**Minor Positive at a Site Scale**

7.0 CONCLUSIONS

7.1 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 at Lands at Ward's Drove, Blandford St Mary of up to 130 dwellings and associated infrastructure.

7.2 The assessment has demonstrated that in the absence of mitigation, proposals would lead to, at most, **minor adverse effects significant at a local level.** This did not apply to designated sites, GCN or riparian mammals, where predicted effects were negligible.

7.3 A combination of intrinsic mitigation, targeted mitigation, compensation and enhancement detailed within this EcIA and appendices have demonstrated that the proposals will lead to **short-term minor adverse effects** for the majority of IEFs. However, in the mid- to long-term, **negligible to minor positive effects are anticipated for all IEFs.**

7.4 The development framework has been assessed for its ability to provide a measurable Biodiversity Net Gain (BNG) using the Statutory Metric (v4.1). Details of this assessment are provided in *Appendix M and N*. Based on the Landscape Masterplan (FPCR, 2024), the proposals will result in a 13.55% gain in habitat units and a 19.22% in hedgerow units.

Key

- **Redline Boundary**
- **Blueline Ownership Boundary**
- **1km**
- **2km**
- **15km**
- **Special Area of Conservation (SAC)**
- **Special Protected Area (SPA)**
- **Local Nature Reserves (LNR)**

Grattons Park
Tilgate Forest
Target Hill Park
Warnham
Weirwood Reservoir
Ashdown Forest (SPA)
Ashdown Forest (SPA)
Ashdown Forest (SAC)
Rowhill Copse
Ardingly Reservoir
Eastern Road Nature Reserve
Blunts and Paiges Wood
Ashenground and Bolnore Woods
Chailey Common
Chailey Common
Chailey Common
Chailey Common
Chailey Common
West Park, Uckfield
Bedelands Farm
Stanmer Park/Coldean
Railway Land Lewes

Eastern Road Nature Reserve
Scrase Valley
0 250 500 m

0 5 10 km

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client
Gladman Development Ltd.

project
Walstead Grange,
Lindfield

drawing title
CONSULTATION PLAN - STATUTORY DESIGNATED SITES

scale @ A3
1:120900

drawn
EB / AU / CHK

issue date
26/1/2024

drawing / figure number
Figure 1
Rev A

Key

- Site Boundary
- Ownership Boundary
- 1km Buffer
- Common Lizard
- Common Pipistrelle
- Grass Snake
- European Water Vole
- Giant Hogweed
- Hazel Dormouse
- Himalayan Balsam
- Japanese Knotweed
- Myotis Bat
- Soprano Pipistrelle
- West European Hedgehog

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0 0.25 0.5 km

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client
Gladman Developments Ltd

project
Walstead Grange,
Lindfield

drawing title
CONSULTATION PLAN - SPECIES RECORDS

scale @ A3
1:9300

drawn
EB / AU / CHL

issue date
17/7/2024

drawing / figure number
Figure 2

Key

- Redline Boundary
- Blueline Ownership Boundary

Baseline Habitats

- Blackthorn scrub
- Bramble scrub
- Modified grassland
- Other neutral grassland

Baseline Hedgerows

- Line of trees
- Native hedgerow
- Native hedgerow with trees

Baseline Watercourses

- Other rivers and streams

Baseline Trees

- Existing Large Urban Tree
- Existing Medium Urban Tree

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0 50 100 m

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client
Gladman Developments Ltd.

project
Land off Scamps Hill, Lindfield

drawing title
BASELINE HABITATS

N

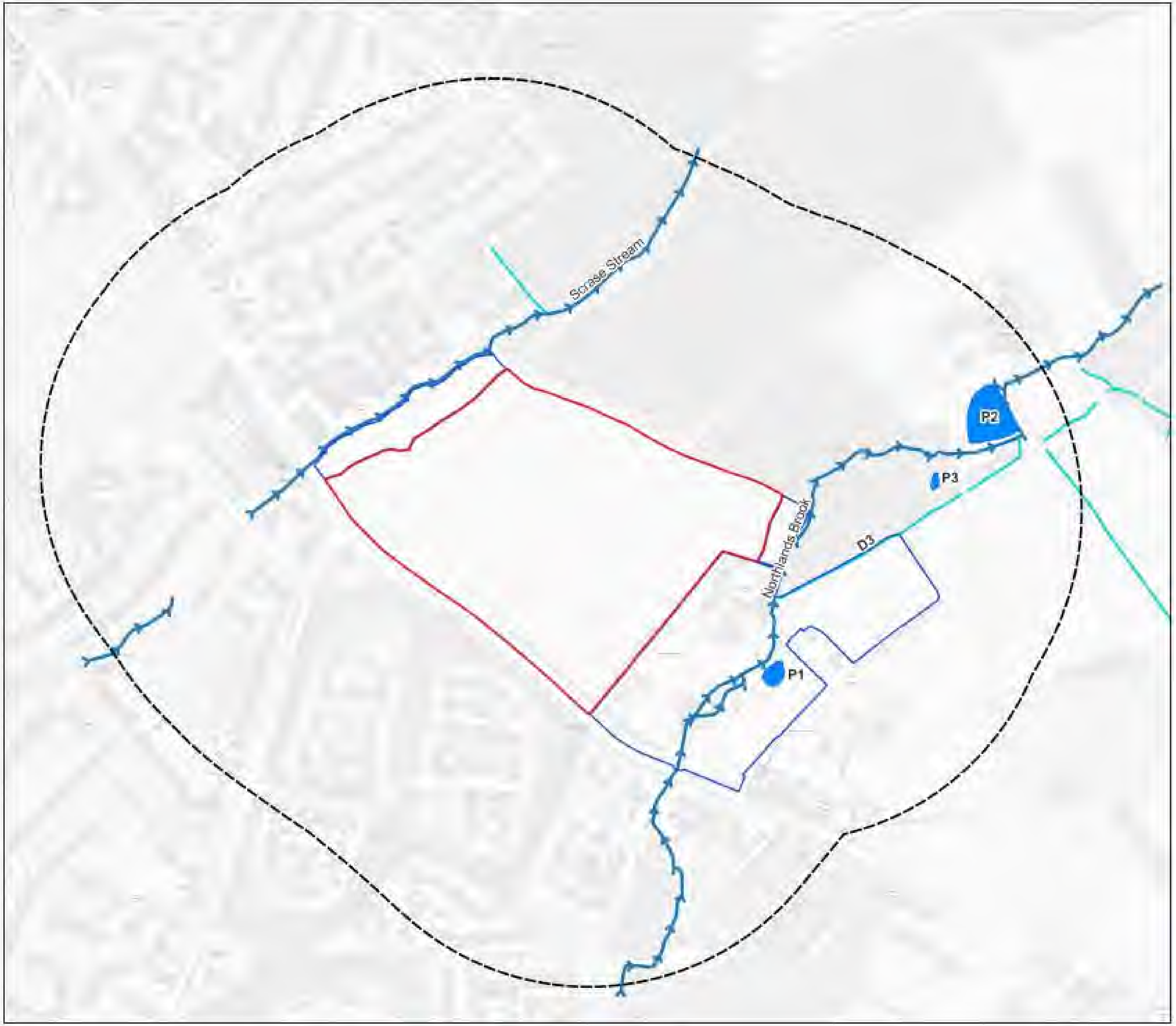
scale @ A3
1:1,600

drawn
DS / AU / CHK

issue date
24/1/2024

drawing / figure number
Figure 3
Rev A

CD2.3



Key

- Redline Boundary
- Blueline Ownership Boundary
- 250m buffer
- Ponds
- Ditches
- Streams

0 100 200 m

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Land off Scamp's Hill, Lindfield

WATERBODY LOCATION PLAN

Figure 4

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

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) 2021

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

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

- 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);
- 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;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

171. 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.

172. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, 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. Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The scale and extent of development within these designated areas should be limited. Planning 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.

174. 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

176. 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 Area of Conservation, and listed or proposed Ramsar sites.

177. 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.

APPENDIX B: SURVEY PERSONNEL

Surveyor Details				
Initials	**Name and Position**	**Qualifications & Memberships**	**Class Licences**	**Years' Experience**
AC	Anna Chalmers Assistant Ecologist	BSc (Hons)	-	1
AU	Abigail Upham Associate Ecologist	BSc (Hons) FISC Level 4	GCN	10
CHK	Casey Higgins-King Ecologist	BSc (Hons), MSc, QCIEEM, FISC Level 4	-	3
DG	Dominic Greves Seasonal Ecologist	-	-	2
EB	Emily Burdon Assistant Ecologist	BSc (Hons), MSc	-	2
HG	Hazel Gisbourne Ecologist	BSc (Hons)	GCN Hazel Dormouse	5
JG	James Gretton Ecologist	BSc (Hons)	Bat Level 1, GCN	4
LC	Lindsay Clark Senior Ecologist	BSc (Hons)	Hazel Dormouse	9
LM	Laura Mynard Senior Ecologist	BSc (Hons) MSc FISC Level 3	GCN Hazel Dormouse	6
LW	Lorcan White Assistant Ecologist	BSc (Hons) QCIEEM	-	1
MO	Milo Oliver Assistant Ecologist	BSc (Hons)	-	1
OS	Oly Sayers Ecologist	BSc (Hons) FISC Level 5	GCN	6
PO	Peter Oldcorn Assistant Ecologist	BSc (Hons), MSc	-	1
RM	Rosie Murfitt Ecologist	BSc (Hons) MSc FISC Level 3	GCN	2
SB	Sophie Bracken Senior Ecologist	BSc (Hons), MRes ACIEEM	Bat Level 2 GCN Level 2	7
SG	Sylvain Gilbert Ecologist	BSc (Hons) RCA	-	2
TC	Toby Champneys Assistant Ecologist	BSc (Hons), MRes, PhD	-	1

Survey	Date(s)	Surveyors
Habitat Survey	November 2020, October 2023	AU, HG, JG
Badger Survey	April, May 2024	LM, RM
Bat Tree Assessment	October 2023	JG
Bat Activity Transects	October 2023, May, July 2024	DG, JG, LW, MO, PO, TC
Breeding Birds	April-June 2024	CHK, EB, MO, OS
GCN eDNA	April 2021	AU, HG
Hazel Dormouse Presence/Absence	May, June 2024	AC, EB, SB, SG
Reptile Presence/Absence	April, May, July 2024	EB, HG, LW, PO, RM, SB, TC
River Condition Assessment	October 2023	SG
Riparian Mammals	April 2024	LM, RM
Wintering Birds	November 2020, November 2023	EB, LC, OS, RM

APPENDIX C: BOTANICAL SPECIES LIST

DAFOR SCALE: DOMINANT, ABUNDANT, FREQUENT, OCCASIONAL, RARE

Species	Modified Grassland	Other Neutral Grassland	Hedgerows	Scrub	Individual Trees	Treelines	Streams
Horse chestnut *Aesculus hippocastanum*					O	O	
Field maple *Acer campestre*						O	
False oat grass *Arrhenatherum elatius*	O						
Pendulous sedge *Carex pendula*							O
Lesser knapweed *Centaurea nigra*		A					
Rosebay willowherb *Chamaenerion angustifolium*							F
Hazel *Coryllus avellana*			D				
Creeping thistle *Cirsium arvense*	A	F		A			
Spear thistle *Cirsium vulfare*		O					
Hawthorn *Crataegus monogyna*			A				
Cocksfoot *Dactylis glomerata*	D						
Willowherb *Epilobium* spp.		O					
Red fescue *Festuca rubra*	A						
Ash *Fraxinus excelsior*			O		F	F	
Common hogweed *Heracleum sphondylium*		O					
Yorkshire fog *Holcus lanatus*	D						
Holly *Ilex aquifolium*			F				
Himalayan balsam *Impatiens glandulifera*							A
Common ragwort *Jacobaea vulgaris*		O					
Soft rush *Juncus effusus*	R	F					
Bird's foot trefoil *Lotus corniculatus*	O						
Hemlock water dropwort *Oenanthe crocata*							O
Ribwort plantain *Plantago lanceolata*		F					
Smooth meadow grass *Poa pratensis*		A					
Rough meadow grass *Poa trivialis*		O					
Wild cherry *Prunus avium*			A				
Blackthorn *Prunus spinosa*		O	F	A			
Bracken *Pteridium aquilinum*	O		O				
English oak *Quercus robur*			O	R	F	F	
Red oak *Quercus rubra*					R		
Creeping buttercup *Ranunculus repens*	F						
Bramble *Rubus fruticosus*			F	D			O
Common sorrel *Rumex acetosa*	A						
Common figwort *Scrophularia nodosa*							O
Common chickweed *Stellaria media*	R						
Common lime *Tilia europaea*					O	F	
White clover *Trifolium repens*	A						
Common nettle *Urtica dioica*	O						

APPENDIX D: SITE PHOTOGRAPHS

Photo 1: Modified grassland G1 with H4 in the background.

Photo 2: Modified grassland G1 with hedgerow H2 and trees T2-T10.

Photo 3: Grassland G2 and T15 - T25.

Photo 4: Grassland G2 to the left and grassland G3 to the right.

Photo 5: Grassland G3, which is dominated by tall forbs including creeping thistle, soft rush and nettles. There were many other neutral grassland indicators present within the sward.

Photo 6: Grassland G3 and a mature oak T30

Photo 7: Log pile with bramble growing over the top, in the north-east corner of G3

Photo 8: Tree stump covered in bramble with potential for small mammals, amphibians and reptiles to use for shelter in the centre of G3

Photo 9: Tree line TL3

Photo 10: Large areas of soft rush *Juncus effusus* within G3

CD2.3

Gladman Developments Ltd.

Land off Scamps Hill, Lindfield

APPENDIX E - BADGER SURVEY REPORT

CONFIDENTIAL

February 2024

THIS DOCUMENT CONTAINS INFORMATION ON THE LOCATION OF BADGER SETTS AND ACTIVITY. DUE TO THE SENSITIVE NATURE OF THESE RECORDS AND THE CURRENT PUBLIC AWARENESS, THIS DOCUMENT SHOULD REMAIN CONFIDENTIAL FOR THE USE OF THE PLANNING APPLICATION AND SHOULD NOT BE MADE PUBLICLY AVAILABLE.

FPCR Environment and Design Ltd
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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	DLS EB CHK / 11.12.2023	DAH / 02.01.2024
A	Final	CHK AU / 12.02.2024	

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FIGURES

1.0 NON-TECHNICAL SUMMARY

1.1 FPCR Environment Ltd was commissioned by Gladman Developments Ltd to undertake badger surveys at Land off Scamps Hill, Lindfield, to provide an ecological baseline and to determine its ecological importance for badgers. Proposals are for a residential development comprising 90 units with associated access and Green Infrastructure (GI).

1.2 The survey area was dominated by modified and other neutral grassland, divided into three field compartments by hedgerows and trees. Mature hedgerows and lines of trees bound the Site, with small areas of bramble and blackthorn scrub present.

1.3 Evidence of badger activity was observed during surveys in 2020, 2021, and 2023. On-Site evidence included one latrine identified in 2021, and a further two latrines and one snuffle hole found in 2023. Two outlier setts were identified off-Site: the first had two holes and was found to the southeast of the Site in 2020 and 2021; the other sett had three holes and was found just outside of the northern boundary in 2023. Both setts showed no evidence of digging or bedding and were regarded as being partially used or disused. The built development is separated from these setts by a large area of GI, therefore there will be no direct damage to these, and occurrence in third-party land means that impacts will be negligible.

1.4 The proposed green infrastructure including a wildflower meadow, scrub, and retained and enhanced hedgerows will ensure continued access for badgers, with enhanced foraging opportunities.

1.5 Limited evidence of badger was identified within the Site, but as badgers are transient in nature, some precautionary mitigation measures during construction will be undertaken to ensure badger (and other mammals) do not become trapped, harmed or injured during the proposed works.

2.0 INTRODUCTION

2.1 The following Badger report has been prepared by FPCR Environment & Design Ltd. on behalf of Gladman Developments Ltd (central OS Grid Reference: TQ 35218 24891) herein referred to as 'the Site'.

2.2 An assessment of badger evidence was made in conjunction with any potential effects of the proposals from the presence of this species; walkover surveys were completed in 2020, 2021, and 2023.

2.3 Due to the sensitive nature of this species and potential effects that could result from releasing badger evidence and sett locations, this document is confidential and should not be released into the public domain, however, it is still to be considered as part of the planning application.

Site Context

2.4 The Site is located within the village of Walstead, on the south-eastern fringe of the town of Lindfield and Haywards Heath. Lindfield Rural is a parish located in the central-eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

2.5 The Site measures approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor neutral grassland field compartments, separated by mature hedgerows and trees.

2.6 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

2.7 Proposals are for a residential development of 90 dwellings. The Site will deliver a residential development with new public open space and equipped play facilities. The current framework plan (FPCR 9432-L-02-Rev T) illustrates the opportunities within the green infrastructure (GI) provide biodiversity benefits through the creation of SUD's, wildflower meadows, scrub planting, hedgerow creation, as well as the retention of the intrinsic habitats on Site including the mature hedgerows, mature trees, and some of the grassland which will be enhanced by the proposals.

Objectives

2.8 This report has been produced as part of an Ecological Appraisal (FPCR 2024) and presents the results of field surveys completed using standard survey methodologies appropriate to badger *Meles meles*. The objectives of the work were to:

- Locate any setts and badger activity within the Site and immediate surroundings (where access permitted);
- Determine the number of social groups of badger resident within the area, their likely ranges, feeding areas, access routes and other relevant parameters to their survival;

- Provide an evaluation of the likely impact of the proposals on badgers; and
- Provide details of the measures required in order to mitigate for the impacts of the scheme.

2.9 The survey findings are presented in this report, together with an assessment of impact of the proposed work and any recommendations for mitigation.

3.0 LEGISLATION

3.1 Badgers are protected under the Protection of Badgers Act 1992[1]. This Act is based on the need to protect badgers from baiting and from deliberate harm or injury, and makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempted to do so; and
- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

3.2 A sett is defined as:

"*Any structure or place that displays signs indicating current use by a badger*"

3.3 Work that disturbs badgers whilst occupying a sett is illegal without a licence from Natural England; badgers may be disturbed by work near the sett even if there is no direct interference or damage to the sett.

3.4 Guidance from Natural England[2] suggests that the potential for such disturbance might not be as great as originally assumed, due to the relatively high tolerance level of badgers. Whether disturbance will be caused should take into account the sett characteristics, current usage and proposed extent of works with the need for a licence being assessed on a site-by-site basis.

3.5 Licences only allow works to be carried out between July and November inclusive.

3.6 The law relates only to the places and structures of habitation and the foraging grounds of badgers are not directly protected. The ODPM 06/2005 Government Circular on Biodiversity and Geological Conservation does however state that*:*

"The likelihood of disturbing a badger sett, or adversely affecting badgers' foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions."

[1] The Protection of Badgers Act 1992 (as amended). London: HMSO [Online]. Available from: http://www.legislation.gov.uk/ukpga/1992/51/contents

[2] Natural England 2009. Protection of Badgers Act 1992 (as amended) Interpretation1 of 'Disturbance' in relation to badgers occupying a sett.

4.0 METHODOLOGY

Desk Study

4.1 Local badger records were requested from Sussex Biodiversity Records Centre (SxBRC) (2023).

4.2 Further inspection of online resources was undertaken to provide additional context and identify any features of potential importance for badgers, using:

- Multi Agency Geographic Information for the Countryside (MAGIC) website[3];
- Colour 1:25,000 OS base maps[4];
- Aerial photographs from Google Earth[5].

Field Surveys

4.3 Standard methodology[6] was followed during surveys completed between 2020 – 2023, whereby a thorough search for evidence indicating the presence of badgers, both on-Site and within the immediate proximity (where access permitted), was undertaken, including the identification of:

- Setts: including earth mounds, evidence of bedding and runways between setts;
- Latrines: often located close to setts, at territory boundaries, or adjacent to favoured feeding areas;
- Prints and paths or trackways;
- Hairs caught on rough wood or fencing; and
- Other evidence: including snuffle holes, feeding and playing areas, and scratching posts. The identification of these signs on their own does not necessarily provide conclusive evidence of the presence of badgers. A number of such signs need to be seen in conjunction before badgers can be confirmed as being present.

4.4 Where setts are found, their status and level of activity is noted. Sett status is broadly categorised as follows:

- *Main sett* – usually continuously used with many signs of activity around, a large number of holes and conspicuous spoil mounds;
- *Annexe sett* – usually located close to a main sett and connected to it by well-used paths. Annexe's may not be continuously occupied;
- *Subsidiary sett* – lesser used setts comprising a few holes and without associated well-used paths. Subsidiary setts are not continuously occupied; and
- *Outlier sett* – one or two holes without obvious paths. These are used sporadically.

4.5 Level of activity is described as:

[3] [Online]. http://magic.defra.gov.uk/
[4] [Online]. www.ordnancesurvey.co.uk
[5] [Online]. www.maps.google.co.uk
[6] Cresswell, P., Harris, S. & Jefferies, D.J. 1989. *Surveying Badgers.* The Mammal Society Publication No.9 Mammal Society

- *Well-used* – clear of debris, trampled soil mounds and obviously active, with signs of activity such as presence of prints, dislodged guard hairs around the entrances;
- *Partially-used* – some associated debris or plants at the entrance. Could be used with minimal excavation and usually with signs of activity within the vicinity, for example, badger pathways; and
- *Disused* – partially or completely blocked entrances.

Constraints

4.6 It was not always possible to fully access areas outside of the Site boundary within third-party land, however, observations were made from the edges, such as looking for well-used paths/push throughs through dense vegetation.

4.7 An attempt to classify all setts has been made based on the number of entrance holes, size of spoil heaps, location, evidence of use, and proximity to other setts. It should be noted however, that sett classification is not 'clear cut' and can be difficult to apply in the field, particularly within dense vegetation, and where no other badger field signs have been identified.

5.0 RESULTS

Desk Study

5.1 The Sussex Badger Group was consulted in 2023 and two records of badger *Meles meles* were returned within 1km of the Site: one record 1km north of the Site and one 450m west of the Site.

Field Survey

5.2 Two outlier setts were identified off-Site (*Figure 1*). The first sett (*S1*) was identified southeast of the Site in November 2020, which was also confirmed in April 2021; during 2020 the excavation looked fresh with spoil outside the holes, but no badger prints were seen. These were narrow but could not be discounted as badgers as there were no field signs of rabbits which have narrow entrances and were assessed as being partially used outliers. In October 2023, these two holes were hard to identify as the surrounding grass had encroached covering the entrances, this sett was now a disused outlier.

5.3 The second sett (*S2*) was found just outside of the northern boundary only in 2023. As with the above these three entrances were narrow with no signs of any spoil that would suggest a major exaction of tunnels or chambers, these did look more like rabbit, but again no evidence was seen. There was a large degree of leaf litter recorded in October 2023, so of which looked to have been there for a while as it had rotted slightly and there was also ground ivy near the front, which suggests that if this was a badger sett it is no more than an outlier, but not in use.

5.4 Evidence found on-Site (*Figure 1*) included a single small, active latrine along hedgerow H1 in 2021 that contained one deposit that was fresh at the time. In 2023 this latrine was not used but there was a new latrine further north along hedgerow H1, which had a large fresher deposit. A second latrine was found along hedgerow H3 in 2023, this was small and fresh, and this was also associated with a potential snuffle hole.

6.0 DISCUSSION AND RECOMMENDATIONS

6.1 Consultation have confirmed that badgers are present in the wider area, however the Site is not used for any resting or refuge as setts were not identified. There were limited field signs that suggest that badgers have frequented the site, however the latrine did not exhibit the size or historic use that would suggest they are being used consistently to mark out a clan's territory. A single snuffle hole would also suggest that the Site does not represent a significant foraging resource, as more activity would have been recorded over the three years' worth of surveys.

6.2 Sett S1 is not active at the time of writing and the construction would indicate that it would not be substantial enough to provide more opportunities than just an outlier as spoil heaps were very small. Even if this sett is occupied in the future, it is suitably buffered from the proposals where there will be no impacts.

6.3 Sett S2 is only a couple of metres from the northern boundary of the proposals, however the current framework indicates that the immediate areas within the Site near the sett will consist public open spaces, thus if this sett was to be colonised in the future impacts would be negligible, however as the sett is currently disused there are no constraints.

6.4 Surveys and consultations have recorded badger activity within the wider area, and they do frequent the Site occasionally, potential for navigational purposes, so it is considered that there is some risk that badgers or other mammals, may become trapped or harmed during the construction phase. Precautionary mitigations measures are therefore advised during the construction phase of works to ensure that badgers (and other mammals) are not harmed (thus maintaining legal compliance):

- During construction any pipes greater than 250mm in diameter will be capped if they are left open overnight, thereby preventing badgers from becoming trapped;
- Any pits or trenches will similarly be covered overnight, or left with a suitable means of escape, e.g. a stout timber plank forming a ramp;
- During the construction phase, operations shall be restricted to daylight hours as far as practicable, in order to minimise the potential for adverse impacts to badger (and other nocturnal and crepuscular wildlife) through disturbance, and
- Construction offices, material compounds and security buildings will be located in appropriate locations away from retained habitats in order to reduce the potential for accidental damage to habitats or interruption to regularly used badger runs. All waste materials are to be appropriately stored, in particular domestic waste from construction site welfare units that may attract badgers, in heavy duty bins with lids.

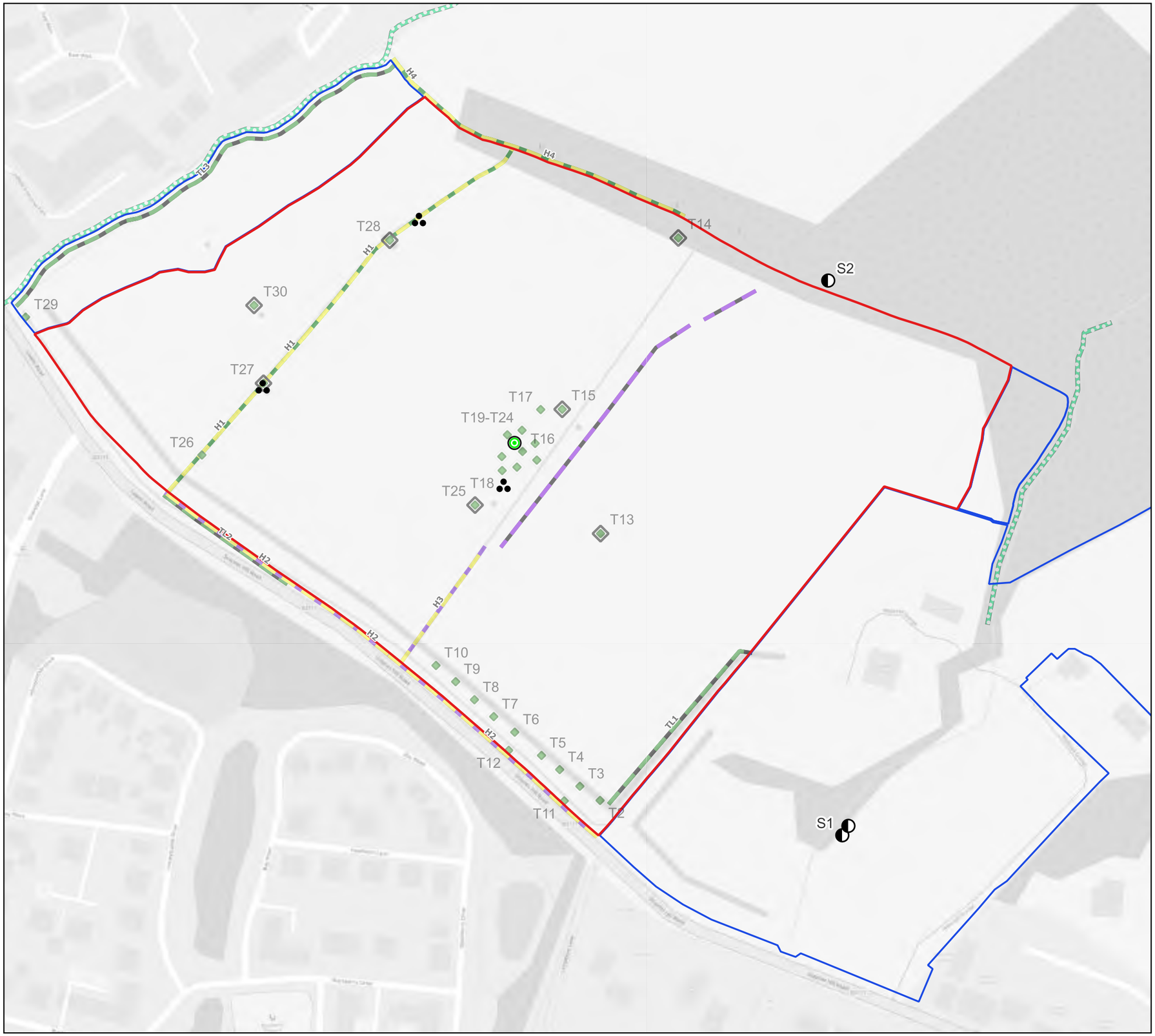
Enhancements

6.5 The proposed development will retain the majority of existing hedgerow and treelines across the Site and will ensure that green corridors are maintained for badgers into the wider area. In addition, the new habitats to be created, such as the areas of wildflower meadow and bordering scrub, will provide enhanced foraging opportunities. Scrub planting should include a range of fruit baring species to provide additional optimal foraging habitat for badgers.

6.6 Enhancement and creation of species-rich and tussock-forming grassland within hedgerow buffers/GI would provide good conditions for earthworms which make up a large proportion of

badger's diets. Tussocky grassland also provides opportunities for small mammals which provide a food source for many animals, including badgers.

CD2.3



Key

- Redline Boundary
- Blueline Ownership Boundary

Badger Evidence

- Outlier Sett (with ref.)
- Latrine
- Snuffle Hole

0 25 50 m

client
Gladman Developments Ltd.

project
Land off Scamp's Hill, Lindfield

drawing title
BADGER SURVEY PLAN

scale 1:1,700 | drawn DLS / AU | issue date 24/1/2024

drawing / figure number **Figure 1** | rev **9432-E-01**

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masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

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Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX F - BAT SURVEY REPORT

July 2024

FPCR Environment and Design Ltd
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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	NK LW / 17.07.2024	AU / 18.07.24

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TABLES

FIGURES

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd. Its purpose is to present the results of bat surveys completed on the site at the Land off Scamps Hill, Lindfield (central OS grid reference TQ 35218 24891) herein referred to as 'the site'.

1.2 The scope and objectives of the report are to:

- present the findings of the bat surveys undertaken between 2020-2024.
- assess the relative importance of the survey area for bats.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement.

Site Context

1.3 The site is located on the south-west edge of the village of Lindfield, West Sussex. It measures approximately 6.6ha and is comprised of three grassland field compartments bounded by mature hedgerows and trees.

1.4 This site is surrounded by residential development, woodland and agricultural land. Northlands Brook runs along the south-east boundary and Scrase Stream lies to the north. Scamps Hill Road demarcates the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-east boundary.

1.5 Proposals are for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION

2.1 Bats are afforded full protection under the Wildlife & Countryside Act (WCA) 1981 (as amended) and the Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended). All UK species are European Protected Species (EPS).

2.2 In summary, it is illegal to:

- deliberately or recklessly capture, injure or kill any bats.
- deliberately disturb bats and impair their ability to survive, to breed/reproduce or to rear/nurture their young.
- deliberately disturb bats and impair their ability to hibernate or migrate.
- deliberately disturb bats and significantly affect the local distribution or abundance of the species to which they belong.
- intentionally or recklessly disturb any bat while it is occupying a structure or place which it uses for shelter or protection.
- intentionally or recklessly obstruct access to any structure or place which a bat uses for shelter or protection.
- damage or destroy a breeding site or resting place of a bat.

2.3 If impacts to bats or their roosts cannot be avoided, an appropriate licence is required from Natural England to derogate from the relevant legislation.

2.4 Some bat species are listed as species of principal importance for the conservation of biodiversity in England as required under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. The S41 list is used to guide decision-makers, including local planning authorities, in implementing their duty under section 40 of the Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was collected from the following consultees and sources:

- Sussex Biodiversity Records Centre (SxBRC)
- Multi Agency Geographic Information for the Countryside (MAGIC)

3.2 Further inspection of satellite imagery (www.maps.google.co.uk) was undertaken to provide context and identify any features of potential importance in the wider countryside.

Ground Level Tree Assessment

3.3 A ground level tree assessment (GLTA) for roosting bat potential was completed by experienced FPCR bat ecologists in November 2020 and October 2023.

3.4 The trees were searched for potential roosting features (PRFs) with the aid of a torch and binoculars, where appropriate. Features[1] include:

- Natural holes (e.g. knot holes) arising from naturally shed or pruned branches.
- Man-made holes (e.g. cavities that have developed from flush cuts).
- Woodpecker holes.
- Cracks/splits in stems or branches (horizontal and vertical).
- Partially detached, or loose bark plates.
- 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 more than 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).
- Bat or bird boxes.

3.5 Using professional judgement, the trees were then placed into bat roost potential categories as per current guidance (BCT 2023)[2]:

Table 1: GLTA Bat Roost Potential Categories

Categories	Description
NONE	Either no PRFs or highly unlikely to be any
FAR	Further Assessment Required – to establish if PRFs are present
PRF	A tree with at least one PRF

[1] BS 8596:2015 Surveying for bats in trees and woodland – Guide. British Standards Institute.

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

Habitat Assessment

3.6 The on-site habitats were assessed for their suitability for foraging and commuting bats. This was informed by the desk study and the habitat surveys undertaken in November 2020 and October 2023. The site was then categorised in line with guidance (BCT 2023) to inform the required survey effort:

Table 2: Habitat Suitability Categories

Categories	Description	Further Surveys Required
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of year.	None
Negligible	No obvious habitat features on site likely to be used as flightpaths or by foraging bats. However, a small element of uncertainty remains to account for non-standard bat activity.	
Low	Habitat that could be used by small numbers of bats as flightpaths (e.g. gappy hedgerows, unvegetated streams) or for foraging (e.g. lone tree, scrub patch) but isolated (i.e. not well connected to habitats in surrounding landscape).	Seasonal* night-time walkover surveys (Spring – April/May, Summer – June-August, Autumn – September/October) Seasonal* automated static detector monitoring
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting (e.g. tree lines, linked back gardens) and foraging (e.g. trees, water, grassland, scrub).	Seasonal* night-time walkover surveys Monthly automated static detector monitoring
High	Continuous high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by bats for foraging (e.g. woodland, tree-lined watercourses, grazed parkland) and commuting (e.g. river valleys, streams, hedgerows, tree lines, woodland edges).	
* May need to increase survey effort to monthly if Annex II species are expected/detector or if significant commuting routes are identified.		

Night-time Bat Walkover Surveys

3.7 In line with current guidance (BCT 2023), each night-time bat walkover (NBW) was undertaken in two parts:

- Two surveyors were positioned on vantage points adjacent to habitats/features most likely to be utilised by commuting bats. They remained stationary and observed any bat behaviour for up to an hour after sunset.
- Surveyors then walked a predetermined transect route together until 2-3 hours after sunset, sampling all habitats within the site and noting any bat activity heard or observed.

3.8 The vantage points and transect routes remained the same for every survey, but the start and finish points of the transects changed each time.

3.9 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.

3.10 Surveys were only carried out in suitable weather conditions (*Table 3*).

3.11 Post-survey, the bat calls recorded on the transect were analysed by experienced ecologists using Kaleidoscope software (Wildlife Acoustics Inc.) to verify the bat species and activity levels.

Table 3: Night-time Bat Walkover Timings and Weather Conditions

Date	Start Time	Finish Time	Weather Conditions
16th October 2023	18:06	20:10	11°C, dry, 50% cloud cover, light breeze
4th May 2024	20:36	22:38	14°C, dry, 10% cloud cover, light breeze
11th July 2024	21:12	23:20	15°C, dry, 90% cloud cover, no breeze

Static Monitoring

3.12 Automated static bat detectors were used to record the passing behaviours of bats from a fixed position. Wildlife Acoustics Inc. Song Meter SM4BAT FS detectors (hereafter referred to as 'SM4BAT detectors') were deployed in habitats likely to be impacted by the proposed development. Locations are shown in *Figure 1* and were chosen using professional judgement.

3.13 The SM4BAT detectors were left to record for a minimum of five nights during suitable weather conditions each survey. They are programmed to activate 30 minutes before dusk and record continuously until 30 minutes after sunrise.

3.14 Static detectors were employed for the following dates:

- 16th – 21st October 2023
- 11th - 16th April 2024
- 9th – 16th May 2024
- 10th – 17th June 2024
- 11th – 16th July 2024

3.15 Following collection, the recordings were analysed using Kaleidoscope Viewer© (Wildlife Acoustics, Inc.) software by experienced ecologists. Each sound file was 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 and detector location for bats.

Limitations

3.16 Due to the overlapping properties of bat echolocation calls from *Myotis* and *Nyctalus* species, it is not always possible to identify a series of bat calls from these genera to species level. Identification to genus level is considered a suitable taxonomic level to allow potential impacts to be assessed and appropriate mitigation designed.

3.17 The static detector units do not discern between individual bats or a single bat passing the microphone several times. Therefore, the data recorded can only provide an indication of bat activity as bat registrations per unit time.

4.0 RESULTS

Desk Study

4.1 Several bat records within 1km of the site were returned from SxBRC in 2023 (*Table 5*):

Table 4: Bat Records

Species	Year(s)	Relevant Legislation	Closest Record (approx.) to Site
Brown long-eared bat *Plecotus auritus*	2021	CHSR, WCA, NERC S41	700m west
Common pipistrelle *Pipistrellus pipistrellus*	2015	CHSR, WCA	200m west
Soprano pipistrelle *Pipistrellus pygmaeus*	2016	CHSR, WCA, NERC S41	700m west
Myotis spp.	2018	CHSR, WCA, NERC S41	700m west

Tree Assessment

4.2 Five trees on site were found to contain potential roosting features (PRFs) as summarised below and illustrated on *Figure 1*:

Table 5: Trees with Potential Roosting Features

Tree Reference	Species	PRFs
T13	Oak *Quercus robur*	Knot hole 3m high on south aspect Hazard beam 4m high on south aspect Branch tear out 4m high on south aspect Branch tear out 8m high on west aspect
T15	Oak *Quercus robur*	Two woodpecker holes 5m high on north aspect Branch tear out 5m high facing north Branch tear out 4m high facing east
T25	Oak *Quercus robur*	Two branch tear outs 3 and 4m high facing south
T26	Oak *Quercus robur*	Hazard beam 4m high facing south-east
T27	Oak *Quercus robur*	Three knot holes on large limbs One knot hole on main trunk Branch tear out in large limb

Habitat Assessment

4.3 The habitats on site were of moderate value for bats, since the hedgerows, tree lines, scrub and grassland provided foraging and commuting opportunities. The surrounding habitat included woodlands and streams and there was good habitat connectivity within the wider area.

Night-time Bat Walkover Surveys

4.4 A total of three species/groups were recorded on site in 2023/24 (*Table 6*), with common and soprano pipistrelle the most frequently recorded. Occasional *Myotis* spp. passes were also recorded.

4.5 Activity was relatively low across all surveys (*Table 6, Figures 2-6*):

Table 6: Transect Survey Summary

Date (Figure ref.)	Total Contacts (incl. point counts & vantage points)	Activity Summary
11th July 2024 (*Figure 2-3*)	**42** 35 common pipistrelle 4 soprano pipistrelle 3 *Myotis* spp.	• Activity concentrated along the Little Walstead Wood boundary line and H4 during the walked transect and VP2. Foraging focused within woodland at VP2. • Three common pipistrelle and one unknown species were recorded using H3 and scatter trees to commute across site.
9th May 2024 (*Figure 4-5*)	**42** 38 common pipistrelle 4 soprano pipistrelle 1 *Myotis* spp.	• Activity concentrated along the Little Walstead Wood boundary line and H4 during the walked transect and VP2. • VP1 recorded bats moving from H2 to TL1. A mix of foraging and commuting activity was observed across VP1 and VP2. • Common pipistrelle account for 90% of all contacts.
16th October 2023 (*Figure 6*)	**37** 27 common pipistrelle 8 soprano pipistrelle 2 *Myotis* spp.	• Contacts were mostly recorded along the south-west boundary, with low numbers along the eastern boundary and buildings B1 and B2. • Common and soprano pipistrelles accounted for 80% of all contacts.

Static Monitoring

4.6 Automated surveys in October 2023, May 2024 and July 2024 recorded eleven bat species/groups across ten statics and a total of 17,025 registrations:

- Common pipistrelle - 95.02% of total registrations
- Soprano pipistrelle – 3.50%
- *Plecotus* spp. - 1.35%
- *Myotis* spp. – 0.94%
- Noctule - 0.14%
- *Nyctalus* spp. – 0.094%
- Serotine – 0.07%
- Nathusius' pipistrelle – 0.041%
- *Nyctalus/Eptesicus* spp. – 0.035%
- *Pipistrellus* spp. – 0.029%
- Barbastelle – 0.006%

4.7 Moderate activity levels were recorded across the site over all surveys.

4.8 Bat activity levels were relatively similar across the months, except for June 2024, where registrations had dropped across the three static locations by nearly a third. This is likely due to the cold and wet spring weather impacting foraging ability into the summer months.

4.9 The species composition recorded from statics remained similar across surveys, with common and soprano pipistrelle counts being amongst the highest proportion of registrations, and small numbers of Nathusius' pipistrelle, *Plecotus*, *Myotis* and *Nyctalus*/*Eptesicus.*

4.10 Activity levels vary at different locations across the site but all three locations appear to be regularly used foraging and commuting habitat.

4.11 Only one barbastelle pass was recorded in May 2024 along Scrase Stream in the north-east.

Table 7: Static Detector Results Summary

Dates	Unit Reference (Figure 1)	Total Registrations	Species & Registration Count	
10th–15th June 2024	A	511	Common pipistrelle – 487 *Myotis* spp. – 15 *Plecotus* spp. - 7	Soprano pipistrelle – 1 Serotine - 1
	B	988	Common pipistrelle - 129 *Nyctalus/Eptesicus* spp. - 1	*Plecotus* spp. – 1 *Myotis* Species - 1
	C	1271	Common pipistrelle – 981 Soprano pipistrelle – 278	*Myotis* spp. – 12
9th-14th May 2024	A	1642	Common pipistrelle - 1558 *Myotis* spp. – 43 Noctule - 18 Soprano pipistrelle – 10	*Nyctalus* spp. – 6 Serotine – 4 *Nyctalus/Eptesicus* spp. - 1 *Plecotus* spp. - 1
	B	1620	Common pipistrelle – 1601 Soprano pipistrelle - 5 *Nyctalus* spp. - 5 *Myotis* spp. – 4	*Plecotus* spp. - 2 Noctule - 1 *Nyctalus*/*Eptesicus* spp. – 1 Barbastelle – 1
	C	3686	Common pipistrelle – 3394 Soprano pipistrelle – 231 *Myotis* spp. – 49 Serotine - 5	Nathusius' pipistrelle – 3 *Nyctalus* spp. - 2 *Nyctalus*/*Eptesicus* spp. - 2
11th-16th April 2024	A	2465	Common pipistrelle - 2465 *Myotis* spp. – 10 *Plecotus* spp. - 4 Soprano pipistrelle – 2	Noctule – 2 Nathusius' pipistrelle - 1 *Nyctalus* spp. - 1
	B	1676	Common pipistrelle – 1616 Soprano pipistrelle – 48	*Myotis* spp. – 10 *Plecotus* spp. - 2
	C	988	Common pipistrelle - 979 *Myotis* spp. – 4 Soprano pipistrelle – 1 Nathusius' pipistrelle - 1	Noctule - 1 *Nyctalus* spp. - 1 *Plecotus* spp. - 1
16th-21st October 2023	A	3034	Common pipistrelle – 2987 Soprano pipistrelle – 19 *Myotis* spp. – 12 *Nyctalus* spp. - 7 *Plecotus* spp. - 6	*Pipistrellus* spp. – 5 Nathusius' pipistrelle - 2 Noctule - 1 Serotine - 1

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Five trees on site were found to have roosting bat potential; all of which will be retained within the design of the scheme as part of hedgerows and greenspace.

5.2 The common and widespread bat species and moderate activity levels recorded on site reflect the low value of the grasslands to the west as well as the importance of the linear and boundary habitats on site. These corridors should therefore be retained, buffered and enhanced, where possible.

Mitigation

5.3 Whilst a portion of hedgerow H1 is to be lost to provide an access road, the remaining hedgerows and boundaries will be retained and enhanced as part of the green infrastructure on site. As such, the corridors around the site will be significantly improved for foraging and commuting bats.

5.4 In addition, meadow grassland will be created in the eastern part of the site along with new tree and scrub planting. These habitats will provide additional prey resources for bats post-development.

5.5 A sensitive lighting strategy will be implemented across the development to minimise impacts on bats and other wildlife. Best practice measures[3,4] 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.

Enhancements

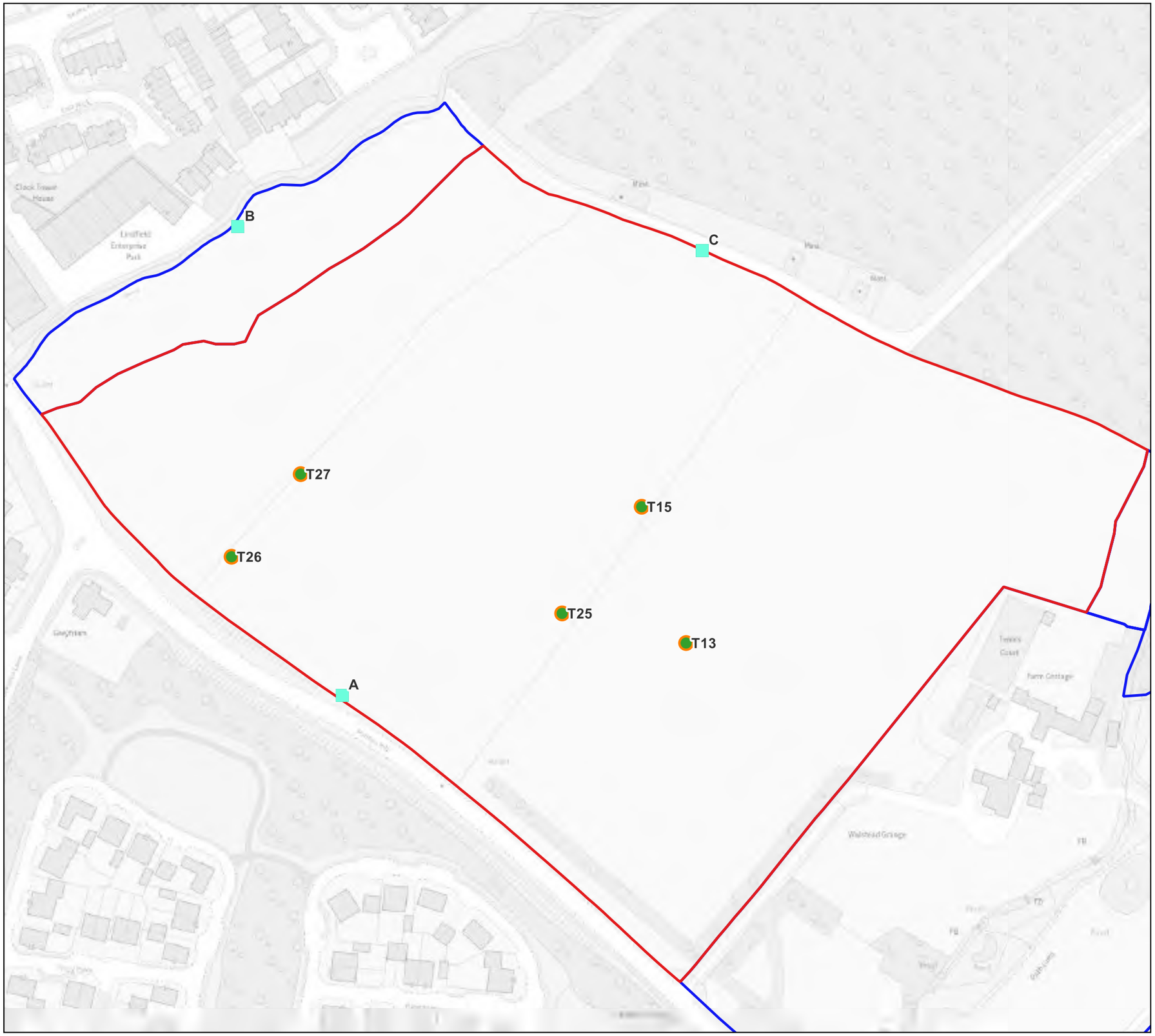
5.6 The development should seek to provide roosting opportunities for the local bat population by installing bat boxes on existing mature trees located along the western and southern site boundary, as well as incorporating bat tubes into the built fabric of residential dwellings. Bat boxes and bricks should be arranged around the development close to green infrastructure and on different aspects, to encourage choice of a variety of alternative roost sites.

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

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

Key

- Site Boundary
- Ownership Boundary
- Static Detector Locations
- Trees with Potential Roosting Features



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Gladman Developments Ltd

project
Land off Scamps Hill, Lindfield

drawing title
STATIC AND TREE LOCATION PLAN

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Key:

- Redline Boundary
- Blueline boundary
- Vantage Points
- Transect Route
- Flight Arrow

VP1
- Common Pipistrelle - 15

VP2
- Common Pipistrelle - 14
- Soprano Pipistrelle - 3
- Myotis Species - 2

Flightline	Summary
1	Common Pipistrelle observed commuting north east past hedgerow
2&3	Common Pipistrelles seen foraging through woodland in both directions
4	Common Pipistrelle observed leaving woodland to forage along hedgerow, before re-entering
5	Common Pipistrelle viewed commuting down hedgerow into woodland

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BAT FLIGHTLINES PLAN - JULY 2024

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Figure **Figure 2** | rev **9432-01**

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CD2.3

Key:

- Redline Boundary
- Blueline boundary
- Start point
- Finish point
- Transect Route

Bat Contacts

- Common Pipistrelle
- Soprano Pipistrelle
- Unknown Bat Species

Ref	Time	Species	Behaviour	Passes
Start	22:20:00.000			
	22:35:00.000	C.PIP	Commuting	2
	22:42:00.000	C.PIP	Unknown	2
	22:42:00.000	MYOSPP	Unknown	1
	22:44:00.000	C.PIP	Commuting	1
	22:46:00.000	C.PIP	Unknown	1
	23:03:00.000	S.PIP	Unknown	1
	23:05:00.000	C.PIP	Commuting	1
End	23:20:00.000			

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Figure 3

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Key:

- Redline Boundary
- Blueline boundary
- Vantage Points
- Transect Route
- May Flightline

VP 1
- Common Pipistrelle - 12
- Myotis Species - 1

VP 2
- Common Pipistrelle - 16
- Soprano Pipistrelle - 2

Flightline	Summary
1	Common Pipistrelle observed commuting down hedgerow
2	Common Pipistrelle headed towards trees
3	Common Pipistrelle flying South-East along woodland edge
4	Common Pipistrelle seen flying from woodland, South-East into field
5	Common Pipistrellle oberved heading East into Walstead Grange Cottage grounds
6	Common Pipistrelle foraging in a loop at field edge
7	Common Pipistrelle seen heading North-East along hedge boundary

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BAT FLIGHTLINES PLAN - MAY 2024

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Figure No.: **Figure 4** | rev **9432-01**

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Key:

- Redline Boundary
- Blueline boundary
- Start point
- Finish point
- Transect Route

Bat Contacts

- Common Pipistrelle
- Soprano Pipistrelle

"Ref."	Time	Species	Behaviour	"Passes"
Start	21:38:00.000			
1	21:41:00.000	C.Pip	Commuting	1
2	21:46:00.000	C.Pip	Commuting	1
3	22:00:00.000	C.Pip	Commuting	1
4	22:25:00.000	C.Pip	Commuting	1
5	22:26:00.000	C.Pip x2	Foraging	Cont.
6	22:26:00.000	S.Pip	Commuting	1
7	22:28:00.000	C.Pip	Foraging	Cont.
8	22:30:00.000	S.Pip	Commuting	1
9	22:31:00.000	C.Pip	Commuting	2
10	22:34:00.000	C.Pip	Foraging	Cont.
11	22:36:00.000	C.Pip	Foraging	3
End	22:38:00.000			

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Key

- Redline Boundary
- Blueline Ownership Boundary
- Start Point
- Finish Point
- Point Count Locations
- Transect Route
- Flight Paths

Bat Contacts

- Common Pipistrelle
- Soprano Pipistrelle
- Myotis Species

Map Ref.	Time	Species	Behaviour	Passes
Start	18:06			
PC A	18:09-18:14	No Bats		
PC B	18:17-18:22	No Bats		
1	18:26	C.Pip	Commuting	1
PC C	18:29-18:34	No Bats		
2	18:35	C.Pip	Commuting	2
3	18:36	C.Pip	Foraging	Cont.
4	18:39	C.Pip	Commuting	1
5	18:47	C.Pip	Commuting	1
PC D	18:49-18:54	No Bats		
6	18:55	C.Pip	Commuting	2
7	18:58	S.Pip	Commuting	2
PC E	19:02-19:07			
8	19:06	C.Pip	Commuting	1
9	19:15	C.Pip	Commuting	1
10	19:15	C.Pip	Commuting	3
11	19:17	S.Pip	Commuting	1
12	19:17	C.Pip	Foraging+Social	4
13	19:18	Myotis Sp.	Commuting	1
14	19:19	C.Pip	Foraging+ Social	Cont.
15	19:19	S.Pip	Foraging+Social	3
PC F	19:20-19:25			
16	19:21	C.Pip	Commuting	2
17	19:22	S.Pip	Foraging+Social	2
18	19:23	C.Pip	Foraging	Cont.
19	19:24	S.PIp	Foraging	Cont.
20	19:24	C.Pip	Commuting	1
21	19:26	C.Pip	Commuting	1
22	19:30	S.PIp	Commuting+Social	1
23	19:30	C.Pip	Commuting+Social	1
24	19:31	C.Pip	Commuting	1
PC G	19:34-19:39			
25	19:35	C.Pip	Commuting	1
26	19:37	C.Pip	Commuting	1
27	19:49	C.Pip	Commuting	1
PC H	19:52-19:57			
28	19:52	C.Pip	Foraging	3
29	19:53	Myotis Sp.	Commuting	1
30	19:55	C.Pip	Commuting	1
31	19:55	S.PIp	Commuting	1
32	19:56	C.Pip	Foraging	3
33	19:57	C.Pip	Commuting	2
34	19:57	S.PIp	Commuting	2
35	19:59	C.Pip	Foraging	Cont.
36	20:04	C.Pip	Commuting	1
PC I	20:05-20:10			
37	20:09	C.Pip	Commuting	1
Finish	20:10			

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BAT TRANSECT PLAN - OCTOBER 2023

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Land off Scamps Hill, Lindfield

APPENDIX G - BREEDING BIRD SURVEY REPORT

July 2024

FPCR Environment and Design Ltd
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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	REM / 04.07.2024	AU / 17.07.24

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TABLES

FIGURES

1.0 INTRODUCTION

1.1 The following Breeding Bird Survey Report has been prepared by FPCR Environment and Design Ltd. on behalf of Gladman Developments Ltd. for the development proposals for Land off Scamps Hill, Lindfield (Central OS Grid Ref: TQ 35218 24891) herein referred to as 'the Site'.

1.2 The scope and objectives of the report are to:

- present the findings of the breeding bird surveys undertaken to date in 2024.
- assess the relative importance of the survey area for the breeding bird assemblage.
- review the Site proposals and provide recommendations for mitigation, compensation and enhancement based on the surveys to date.

Site Location and Context

1.3 The Site is located on the south-west edge of the village of Lindfield, West Sussex. It measures approximately 6.6ha and is comprised of three grassland field compartments bounded by mature hedgerows and trees.

1.4 This site is surrounded by residential development, woodland and agricultural land. Northlands Brook runs along the south-east boundary and Scrase Stream lies to the north. Scamps Hill Road demarcates the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-east boundary.

1.5 Proposals are for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION & STATUS

Legislation

2.1 Annex 1 of the EC Birds Directive lists rare and vulnerable species of regularly occurring or migratory wild birds that are subject to special conservation measures. The Directive also provides for the designation of Special protection Areas (SPA) for the protection of these species which form part of the Natura 2000 networks of sites protected by European Wildlife Legislation.

2.2 The Wildlife and Countryside Act 1981 (as amended) 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:

- Kill, injure or take any wild bird intentionally;
- Take, damage or destroy the nest of any wild bird while in use or being built;
- Take or destroy the egg of any wild bird.

2.3 Additional protection is afforded to species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), whereby intentional disturbance whilst building or occupying a nest or disturbance of dependent young is considered an offence.

2.4 Certain species have also been identified as species of principal importance under Section 41 of the NERC Act 2006 (NERC S.41). 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, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Status

2.5 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 Concern (BoCC) in the UK[1]:

- Red list (high conservation concern) species are those that are globally threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- Green list (low conservation concern) species fulfil none of the above criteria.

[1] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 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: 723-747

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations, including:

- Multi Agency Geographic Information for the Countryside (MAGIC)
- Sussex Biodiversity Records Centre (SxBRC)

3.2 Further inspection of colour 1:25000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) were also undertaken to provide additional landscape context and identify any features of potential importance for nature conservation in the wider countryside.

3.3 The search area for biodiversity information was related to the significance of designated sites and protected species and associated potential zones of influence. For local bird records (e.g., protected, or otherwise notable species) a 2km search area was adopted.

3.4 Datasets were restricted to the last ten years to ensure that recent and more relevant records of protected/notable species were considered. However, where protected/notable species have been documented over ten years ago and there are no recent accounts, these have been included.

Breeding Bird Surveys

3.5 Six breeding bird surveys (BBS) were undertaken between March and June 2024. The survey methodology employed was based on that by the Bird Survey & Assessment Steering Group[2].All birds encountered (seen or heard) were recorded on a field survey plan using standard BTO species codes and symbols, which denote bird sex, age, and behaviour (where appropriate). Flyover individuals were only recorded when they were a notable species and the onsite habitat provided breeding and/or foraging opportunities for that species.

3.6 The Site was walked over by experienced ecologists between sunrise and 11:00am. A route was mapped out prior to the survey, with particular attention paid to linear features, such as hedgerows and tree lines, and other natural features, such as scrub or waterbodies.

3.7 The criteria used in the assessment of breeding birds has been adapted from the standard criteria proposed by the European Ornithological Atlas Committee (EOAC 1979)[3] and are grouped into four categories:

- **Non-breeder** e.g. flyover, or observed in unsuitable habitat;
- **Possible breeder** e.g. birds observed in suitable habitat, or a singing male recorded;
- **Probable breeder** e.g. pair in suitable habitat, territory defence, agitated behaviour, or nest building; and
- **Confirmed breeder** e.g. recently fledged young observed, adult birds carrying food for young.

3.8 The surveys were conducted to ascertain the Site's potential to support breeding populations of bird species that have been assessed to be of some conservation importance, including those included

[2] Bird Survey & Assessment Steering Group. (2023). Bird Survey Guidelines for assessing ecological impacts, v.1.1.1. https://birdsurveyguidelines.org
[3] EOAC (1979) *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and/or Birds of Conservation Concern (BoCC) Red or Amber lists[4]. These species are likely to be at greatest threat of further decline and are commonly referred to as 'notable' species.

3.9 The surveys were not undertaken in unfavourable conditions such as heavy rain or strong wind, which may negatively affect the results:

Table 1: Survey Dates and Weather Conditions

Date	Cloud Cover (%)	Rain	Wind (Beaufort scale)	Visibility
19th March 2024	100	None	0-1	Good
9th April 2024	90	None	4	Very Good
19th April 2024	100	None	0-1	Very Good
20th May 2024	0	None	0	Very Good
6th June 2024	10	None	0-1	Very Good
28th June 2024	60	None	0-1	Very Good

Species & Assemblage Assessment

3.10 The conservation value of bird populations was measured using two separate approaches: nature conservation value and conservation status.

3.11 The CIEEM guidance on Ecological Impact Assessment (EcIA)[5] assesses nature conservation value within a geographical context. To attain each level of value, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out in *Table 2*. In some cases, professional judgement may be required to increase or decrease the allocation of the specific value, based upon local knowledge.

3.12 For a species to obtain a conservation value as Local Level or higher, they must regularly occur in sustainable populations within the Site boundaries.

3.13 The 2019 annual bird report for Sussex[6] was then consulted to inform the species abundance within the county:

- Very rare – Fewer than ten records ever
- Rare – Ten or more records ever, but less than annual
- Very scarce – Fewer than ten birds occurring or pairs breeding annually
- Scarce – Between ten and 100 birds occurring or pairs breeding annually
- Fairly common – Between 100 and 1000 birds occurring or pairs breeding annually
- Common – Between 1000 and 5,000 birds occurring or pairs breeding annually
- Very common – Between 5,000 and 30,000 birds occurring or pairs breeding annually
- Abundant – More than 30,000 birds occurring or pairs breeding annually

[4] Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (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: 723-747.

[5] 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.

[6] Sussex Ornithological Society (2020) *The Sussex Bird report 2019 (vol. 72)*.

Table 2: Species Nature Conservation Value Evaluation Criteria

Nature Conservation Value	Selection Criteria
International	• A species which is part of the cited interest of an SPA and which regularly occurs in internationally, or nationally important numbers. • A species present in internationally important numbers (>1% of international population).
National	• A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers. • A nationally important assemblage of breeding or over-wintering species. • A species present in nationally important numbers (>1% UK population). • Rare breeding species (<300 breeding pairs in the UK).
Regional	• Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in regionally important numbers. • Species present in regionally important numbers (>1% of regional population). • Sustainable populations of species that are rare or scarce within a region. • Species on the BoCC Red List and which regularly occurs in regionally important numbers.
County	• Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in county important numbers. • Species present in county important numbers (>1% of county population). • Sustainable populations of species that are rare or scarce within a county or listed as priority species for nature conservation under S41 of the NERC Act. • A site designated for its county important assemblage of birds (e.g. a SINC site). • Species on the BoCC Red List and which regularly occur in county important numbers.
Local	• Other species of conservation interest (e.g. all other species on the BoCC Red and Amber List or listed as Priority Species under Schedule 41 of the NERC Act (2006) which are not covered above) regularly occurring in locally sustainable populations. • Sustainable populations of species which are rare or scarce within the locality.
Site	• Species that are common and widespread

4.0 RESULTS

Desk Study

4.1 Ashdown Forest is a Special Protection Area (SPA) located approximately 8km north-east of the Site. It is designated due to the presence of breeding nightjar *Caprimulgus europaeus* and Dartford warbler *Sylvia undata*.

4.2 Numerous bird species records within 1km of the site were returned from SxBRC. Most of these records had two and four figure grid references (i.e. low resolution) that could not be mapped accurately. Notable and protected species recorded within 1km include kingfisher *Alcedo atthis*, barn owl *Tyto alba,* hawfinch *Coccothraustes coccothraustes* and turtle dove *Streptopelia turtur*.

Breeding Birds Surveys

4.3 A total of 29 bird species were recorded on Site:

Table 3: BBS Survey Results

	Number recorded on site per survey						
Species	**Survey 1**	**Survey 2**	**Survey 3**	**Survey 4**	**Survey 5**	**Survey 6**	**Breeding Status & Behaviour Observed**
Pheasant *Phasianus colchicus*	7	3	2	1	1	-	Possible In suitable nesting habitat
Red-legged partridge *Alectoris rufa*	3	-	-	-	-	-	Non-breeder In unsuitable nesting habitat
Swift *Apus apus*	-	-	-	-	1	2	Non-breeder In unsuitable nesting habitat
Buzzard *Buteo buteo*	-	-	-	-	1	1	Possible In suitable nesting habitat
Kestrel *Falco tinnuculus*	1	-	-	--	-	-	Possible In suitable nesting habitat
Woodpigeon *Columba palumbus*	4	1	5	13	4	5	Probable Territory defended for a least 2 surveys
Green woodpecker *Picus viridis*	1	-	-	-	-	-	Possible In suitable nesting habitat
Great spotted woodpecker *Dendrocopos major*	1	-	-	-	-	-	Possible In suitable nesting habitat
Stock dove *Columba oaenas*	-	2	1	1	-	1	Possible In suitable nesting habitat, singing male
Carrion crow *Corvus corone*	1	2	-	-	-	-	Possible In suitable nesting habitat
Jackdaw *Corvus monedula*	4	1	2	2	-	-	Possible In suitable nesting habitat
Jay *Garrulus glandarius*	-	-	-	1	-	-	Possible In suitable nesting habitat
Magpie *Pica pica*	3	3	-	4	-	-	Possible In suitable nesting habitat
Blue tit *Cyanistes caeruleus*	7	4	9	14	1	10	Confirmed Recently fledged young
Great tit *Parus major*	2	4	4	3	-	2	Confirmed Recently fledged young
Coal tit *Periparus ater*	2	4	4	3	-	2	Possible In suitable nesting habitat, singing male
Long-tailed tit *Aegithalos caudatus*	4	-	-	2	-	2	Possible In suitable nesting habitat

	Number recorded on site per survey						
Species	**Survey 1**	**Survey 2**	**Survey 3**	**Survey 4**	**Survey 5**	**Survey 6**	**Breeding Status & Behaviour Observed**
Nuthatch *Sitta europaea*	-	-	1	-	-	4	Confirmed Recently fledged young
Goldcrest *Regulus regulus*	-	-	-	-	-	1	Possible In suitable nesting habitat, singing male
Chiffchaff *Phylloscopus collybita*	1	1	4	2	-	2	Probable Territory defended for a least 2 surveys
Blackcap *Sylvia articapilla*	-	-	-	1	-	-	Possible In suitable nesting habitat, singing male
Whitethroat *Sylvia communis*	-	-	-	1	-	-	Possible In suitable nesting habitat, singing male
Wren *Troglodytes troglodytes*	4	3	5	8	1	5	Probable Territory defended for a least 2 surveys
Pied wagtail *Motacilla alba*	-	-	1	-	-	-	Possible In suitable nesting habitat
Blackbird *Turdus merula*	4	3	3	4	2	1	Probable Nest building
Song thrush *Turdus philomelos*	1	-	-	2	2	1	Probable Territory defended for a least 2 surveys
Robin *Erithacus rubecula*	2	4	3	3	2	-	Probable Pair in suitable nesting habitat
Dunnock *Prunella modularis*	-	2	-	1	-	2	Possible In suitable nesting habitat, singing male
Goldfinch *Carduelis carduelis*	4	-	3	3	-	3	Possible In suitable nesting habitat, singing male

4.4 Of these 29 species:

- 7 were ‘notable’ species (*Table 4*).
- 3 were confirmed breeders and all on the BoCC Green List.
- 6 were probable breeders, of which three were notable species: wren *Troglodytes troglodytes*, song thrush *Turdus philomelos* and woodpigeon *Columba palumbus*.
- 20 were considered possible breeders (18) or non-breeders (2).

4.5 *Table 4* provides a summary of the notable bird species and their breeding status onsite and *Figure 1* shows the distribution of the notable species.

Table 4: BBS Protected and Notable Species and their Recent County Status

Species	Legal/ Conservation Status	Peak Count / No. of Occasions Recorded	Breeding Status	Recent Status in Sussex
Stock dove *Columba oenas*	Amber list	2 / 4	Possible	Common resident and possible winter visitor.
Woodpigeon *Columba palumbus*	Amber list	13 / 6	Probable	Abundant resident and winter visitor.
Kestrel *Falco tinnunculus*	Amber list	1 / 1	Possible	Fairly common or common resident and passage migrant.

Species	Legal/ Conservation Status	Peak Count / No. of Occasions Recorded	Breeding Status	Recent Status in Sussex
Wren *Troglodytes troglodytes*	Amber list	8 / 6	Probable	Abundant resident.
Whitethroat *Sylvia communis*	Amber list	1 / 1	Possible	Very common summer visitor and passage migrant.
Dunnock *Prunella modularis*	Amber list NERC S41	2 / 3	Possible	Very common resident.
Song thrush *Turdus philomelos*	Red list NERC S41	2 / 4	Probable	Very common but decreasing resident and partial migrant; common passage migrant and winter visitor.

4.6 Most bird species recorded were typical of the range of habitats that dominate the Site, primarily grassland with boundary hedgerows and individual trees. The interior of the grassland compartments was not frequently used by any bird species, with the hedgerows supporting most activity. The hedgerows provided breeding and foraging opportunities for several common and widespread, generalist and woodland species including chiffchaff *Phylloscopus collybita*, blackbird *Turdus merula*, robin *Erithacus rubecula* and the common tit and finch species recorded.

4.7 Notable species using onsite hedgerows included dunnock *Prunella modularis*, wren *Troglodytes troglodytes*, and song thrush *Turus philomelos*. They were recorded in low numbers and considered probable or possible breeders.

4.8 A single kestrel *Falco tinnunculus* was recorded on the north-western Site boundary near the stream exhibiting hunting behaviour. The grassland and hedgerow bases provide some limited foraging opportunities for kestrel and other birds of prey, such as sparrowhawk *Accipiter nisus*.

Evaluation

Breeding Bird Assemblage

4.9 The hedgerows on Site provide suitable breeding and/or foraging habitat for an assemblage of common and widespread generalist species including dunnock, blackbird, blackcap, and wren. The assemblage recorded is considered typical of the habitats present, which are a common feature of the surrounding landscape. While the assemblage includes a small number of notable species, these species are all common in Sussex and the numbers recorded are all considered typical of the habitats present. The Site was therefore considered to be of no more than **Local** level importance for the generalist assemblage recorded.

4.10 The grassland interiors provide some limited foraging opportunities for birds of prey, such as kestrel, as well as species such as song thrush and starling, but no suitable breeding habitat.

Individual Species

4.11 *Table 5* summarises the birds species recorded from the Site that are of at least Local importance.

4.12 The majority of the other breeding bird species were either recorded in small numbers, were recorded flying over the site, were noted in unsuitable breeding habitats and/or are considered common and widespread breeding species. The species that make use of the available habitats are of Site importance only.

Table 5: Birds of at least Local Importance

Name		Status		Nature Conservation Value
		WCA Sch.1	NERC S.41	
BoCC Red List				
Song thrush	*Turdus philomelos*		+	Local

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 The following section provides an assessment of the potential impacts of the proposals upon breeding birds. Where appropriate, recommendations are provided for mitigation and enhancement that take account of the likely ecological effects. Throughout the evaluation, any recommendations for mitigation have been informed by the Site Framework Plan.

5.2 The proposed residential development will comprise associated green space including the creation of other neutral grassland, areas of mixed scrub, SuDS and the planting of native trees.

5.3 The recommendations below have been given with the aim of informing development proposals on how to best maintain the conservation status of bird species present.

Impact Assessment

5.4 The potential impact of the loss or change of habitat upon breeding bird species arising from the effects of development is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded on site, their nature conservation criteria based on legislation and current guidance, their county status according to *The Sussex Bird Report 2019* and professional judgement.

5.5 The following potential impacts to the recorded bird populations and assemblage may result from the proposals:

- Direct loss/change of breeding habitat.
- Disturbance during habitat creation and/or operation.

Habitat Loss

5.6 The majority of grassland habitat is to be lost to the development, with some retained and enhanced to other neutral grassland. The majority of hedgerows and all tree lines are to be retained, with small portions of hedgerow to be lost for the creation of access. New, species-rich hedgerows will be planted throughout the Site to compensate for this and retained hedgerows will be enhanced through further planting and improved management.

5.7 The individual species recorded onsite that are arguably the most vulnerable to impacts from habitat loss/change are the species that are considered to be of at least **Local** importance. These comprise notable species that are either specially protected, appear on the BoCC Red list and/or are listed as a NERC Priority Species and were recorded in at least locally important numbers.

5.8 The loss of grassland habitat across the Site will result in a small loss of foraging habitat for species such as kestrel and song thrush. However, the enhancement of the remaining grassland to species-rich other neutral grassland, will adequately compensate for this loss, providing good quality foraging habitat for a range of species.

5.9 The retention of the majority of hedgerows, tree lines and the introduction of green infrastructure planting, such as areas of mixed scrub, will continue to provide suitable foraging habitats for the generalist species recorded. This will include wren, dunnock, woodpigeon, and common tit and finch species, which will all readily habituate to human disturbance.

5.10 The proposed new wetland features onsite should be enhanced by the planting of aquatic and marginal species. This would improve foraging opportunities for the range of generalist species

recorded while also providing potential habitat for additional species, including reed bunting *Emberia schoeniclus*. Indeed, a number of notable species are likely to benefit from the proposals. It is therefore considered that development of the Site will result in a beneficial impact to the majority of the generalist bird populations recorded.

Disturbance Impacts

5.11 Construction operations have the potential to disturb birds using the Site for roosting, foraging, and breeding. Operations likely to disturb breeding birds include noise from vegetation clearance, initial ground works and some construction activities, such as piling, which are of low frequency but of high amplitude. Active, high level, infrequent disturbance causes most birds to be displaced for short periods[7]. 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 or woodland edge. Whilst there is some potential for breeding success to be reduced, this is not expected to affect the local conservation status on the majority of the bird species using the Site for breeding.

5.12 The increase in domestic animals during the operational phase, particularly cat, may lead to an effect on small bird populations. Recent research is inconclusive as to the actual effect that domestic cats can have on wild populations. However, (although some species may be more susceptible to predation than others) it is considered unlikely that the increased abundance of cats would alter the conservation status of any of the breeding birds assemblages present in this instance, with the magnitude of any such impact reduced by the retention of hedgerows and scrub which will continue to provide cover and screening from potential predators. it is therefore considered that the impact of cats will be of negligible significance.

Mitigation

5.13 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.

Enhancements

5.14 Additional planting should be incorporated into the Sites green infrastructure and would provide additional foraging and breeding habitat for a range of bird species. Where possible it is recommended that consideration is 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 species recorded.

5.15 Attenuation features should be planted with an appropriate marginal vegetation mix that includes common reed *Phragmites australis*. This will provide good nesting opportunities for reed bunting and encourage onsite breeding by this species.

[7] Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V., and Barker, M. 1992 Examination of the effects of disturbance on birds with reference to the role of environmental impact assessments. Journal of Environmental Management, 36, 253–286

5.16 Additional enhancements that could be integrated with the on-going management of the Site include the erection of a mixture of nest box types. The following provides details of other suitable nest box types to be erected at suitable locations:

- A mixture of small hole (26mm and 32mm) boxes placed along the retained habitat around the proposed development area will provide nesting opportunities for blue tit *Cyanistes caeruleus* and great tit *Parus major*. These boxes generally have a high uptake rate;
- Small open fronted nest boxes again should be placed throughout the site especially on trees which support a climber such as ivy which provides a degree of concealment. These boxes typically attract robin and blackbird;
- Stock dove nest boxes should be placed within the more established boundary habitats including mature tree standards;

5.17 Consideration should subsequently be given to the provision of nest boxes for urban birds, including house sparrow, house martin, swallow, and swift. Given the urbanised nature of the proposed development, opportunities exist to encourage these species to breed on Site.

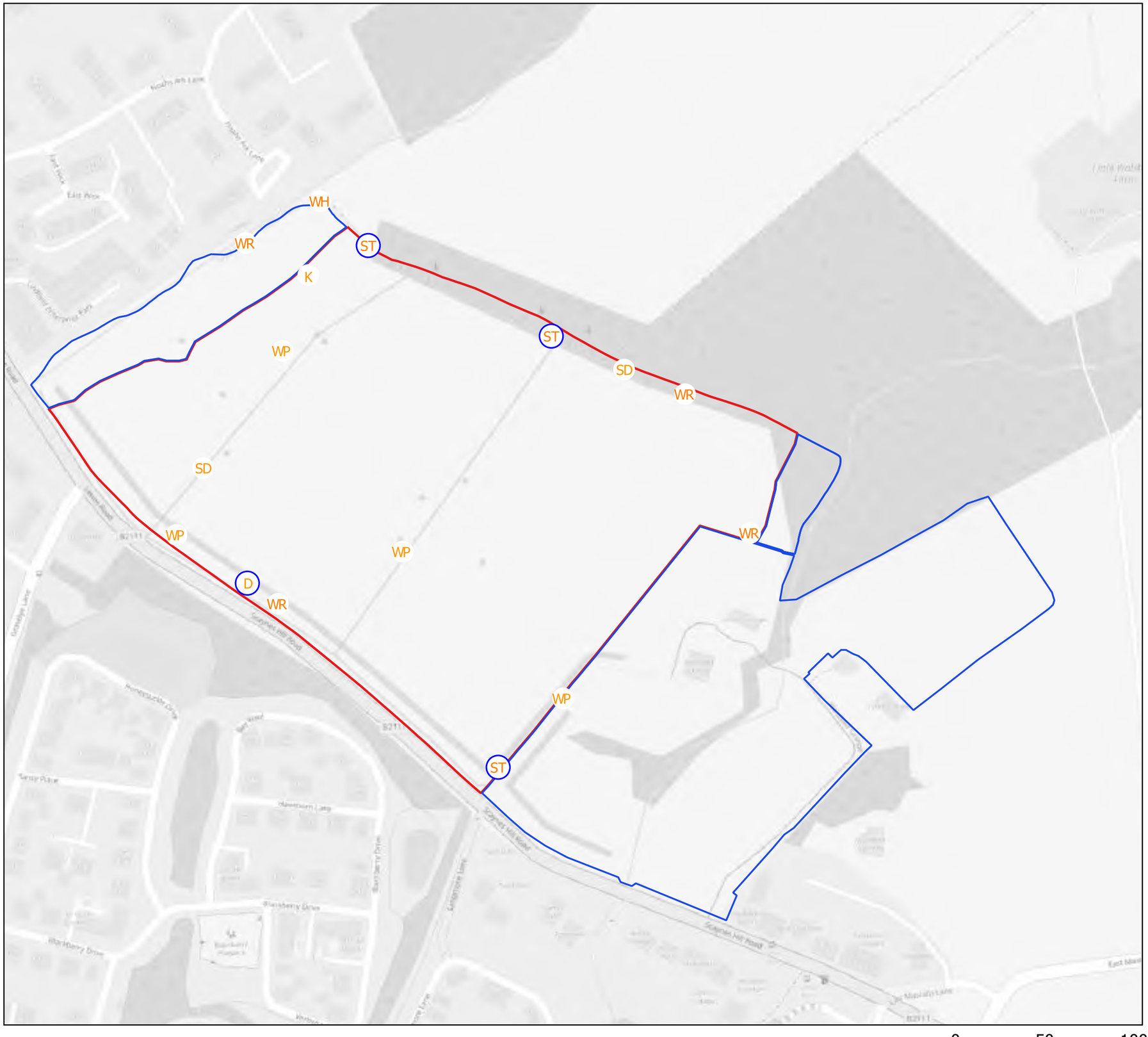
Key

BoCC Amber List Species

- D **Dunnock**
- K **Kestrel**
- SD **Stock Dove**
- WH **Whitethroat**
- ST **Song Thrush**
- WP **Woodpigeon**
- WR **Wren**

Additional Protections

- **NERC Species of Principal Importance**
- **Schedule 1 Species**
- **LBAP Species (underlined)**



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client
Gladman Developments Ltd.

project
Land off Scamps Hill,
Lindfield

drawing title
BREEDING BIRD SURVEY RESULTS PLAN - DISTRIBUTION OF NOTABLE SPECIES

scale @ a3
1:2,200

drawn
REM

issue date
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drawing / figure number
Figure 1

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masterplanning ■ environmental assessment ■ landscape design ■ ecology ■ architecture ■ arboriculture ■

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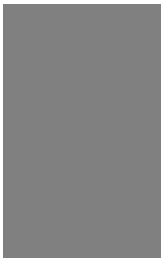

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX H - WINTER BIRD SURVEY REPORT

July 2024

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-	Final	DLS / 08.07.24	AU / 17.07.24

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APPENDICES

1.0 INTRODUCTION

1.1 The following Winter Bird Survey Report has been prepared by FPCR Environment & Design Ltd on behalf of Gladman Developments Ltd. Its purpose is to provide an overview of wintering bird surveys on Land off Scamps Hill, Lindfield (central OS Grid Reference: TQ 35218 24891), hereafter referred to as 'the Site'. The Site refers to the survey area (red line boundary) and not the total area of land under the same ownership (blue line boundary).

1.2 The scope and objectives of the report are to:

- identify the presence of any designated nature conservation sites that support notable winter bird assemblages within or in the vicinity of the site.
- present the findings of the scoping winter bird surveys in 2020 and 2023.
- assess the onsite habitats for their potential to support overwintering species.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement based on the surveys to date.

Site Location and Context

1.3 The Site is located on the south-west edge of the village of Lindfield, West Sussex. The survey area (red line boundary) measures approximately 6.6ha and is comprised of three grassland field compartments bounded by mature hedgerows and trees.

1.4 This Site is surrounded by residential development, woodland and agricultural land. Northlands Brook runs along the south-east boundary and Scrase Stream lies to the north. Scamps Hill Road demarcates the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-east boundary.

Development Proposals

1.6 A full planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION & STATUS

Legislation

2.1 Annex 1 of the EC Birds Directive lists rare and vulnerable species of regularly occurring or migratory wild birds that are subject to special conservation measures. The Directive also provides for the designation of Special protection Areas (SPA) for the protection of these species which form part of the Natura 2000 networks of sites protected by European Wildlife Legislation.

2.2 The Wildlife and Countryside Act 1981 (as amended) 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:

- Kill, injure or take any wild bird intentionally;
- Take, damage or destroy the nest of any wild bird while in use or being built;
- Take or destroy the egg of any wild bird.

2.3 Additional protection is afforded to species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), whereby intentional disturbance whilst building or occupying a nest or disturbance of dependent young is considered an offence.

2.4 Certain species have also been identified as species of principal importance under Section 41 of the NERC Act 2006 (NERC S.41). 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, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Status

2.5 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 Concern (BoCC) in the UK[1]:

- Red list (high conservation concern) species are those that are globally threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- Green list (low conservation concern) species fulfil none of the above criteria.

[1] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 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: 723-747

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations, including:

- Multi Agency Geographic Information for the Countryside (MAGIC)
- Sussex Biodiversity Records Centre (SxBRC)

3.2 Further inspection of colour 1:25000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) were also undertaken to provide additional landscape context and identify any features of potential importance for nature conservation in the wider countryside.

3.3 The search area for biodiversity information was related to the significance of designated sites and protected species and associated potential zones of influence. For local bird records (e.g., protected, or otherwise notable species) a 2km search area was adopted.

3.4 Datasets were restricted to the last ten years to ensure that recent and more relevant records of protected/notable species were considered. However, where protected/notable species have been documented over ten years ago and there are no recent accounts, these have been included.

Field Survey

Winter Bird Scoping Survey

3.5 A scoping winter bird survey (WBS) was carried out in November 2020, followed by an update scoping survey in November 2023. The survey methodology was broadly based on the Bird Survey Guidelines[2]. All birds encountered (seen or heard) were recorded on a field survey plan using standard BTO species codes and symbols[3], which denote bird sex, age, and behaviour (where appropriate). Flyover individuals were only recorded when they were a notable species and the onsite habitat provided foraging or roosting opportunities for that species.

3.6 The Site was walked over by experienced ecologists in suitable weather conditions (*Table 1*). A route was mapped out prior to the survey, with particular attention paid to linear features, such as hedgerows and tree lines, and other natural features, such as scrub or waterbodies. Habitats were assessed for their potential to support overwintering species.

3.7 The redline boundary of the Site previously extended to the blueline boundary, and so the 2020 survey was carried out on this basis. Results are included in this report for completeness, but where they occur within the blue but not the redline boundary, they are discussed as being offsite.

Table 1: Winter Bird Survey Dates and Weather Conditions 2020/23

Date	Cloud Cover (%)	Rain	Wind (Beaufort scale)	Visibility
24th November 2020	50	None	1	Very good
20th November 2023	80	None	1	Good

[2] Bird Survey & Assessment Steering Group. (2023). Bird Survey Guidelines for assessing ecological impacts, v.1.1.1. https://birdsurveyguidelines.org [20.05.24

[3]]Bibby, C.J., N.D. Burgess & D.A. Hill (2000) *Bird Census Techniques*: 2nd Edition. London: Academic Press

Species & Assemblage Assessment

3.8 The conservation value of bird populations was measured using two separate approaches: nature conservation value and conservation status.

3.9 The CIEEM guidance on Ecological Impact Assessment (EcIA)[4] assesses nature conservation value within a geographical context. To attain each level of value, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out in *Table 2*. In some cases, professional judgement may be required to increase or decrease the allocation of the specific value, based upon local knowledge. In order for a species to obtain a conservation value as Local Level or higher, they must regularly occur in sustainable populations within the Site boundaries.

3.10 The 2019 annual bird report for Sussex[5] was then consulted to inform the conservation status of species within the county. The abundance of species referred to by these reports is classified by the following criteria:

- Very rare – Fewer than ten records ever;
- Rare – Ten or more records ever, but less than annual;
- Very scarce – Fewer than ten birds occurring or pairs breeding annually;
- Scarce – Between ten and 100 birds occurring or pairs breeding annually;
- Fairly common – Between 100 and 1000 birds occurring or pairs breeding annually;
- Common – Between 1000 and 5,000 birds occurring or pairs breeding annually;
- Very common – Between 5,000 and 30,000 birds occurring or pairs breeding annually; and
- Abundant – More than 30,000 birds occurring or pairs breeding annually.

Table 2: Species Nature Conservation Value Evaluation Criteria

Nature Conservation Value	Selection Criteria
International	• A species which is part of the cited interest of an SPA and which regularly occurs in internationally, or nationally important numbers. • A species present in internationally important numbers (>1% of international population).
National	• A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers. • A nationally important assemblage of breeding or over-wintering species. • A species present in nationally important numbers (>1% UK population). • Rare breeding species (<300 breeding pairs in the UK).
Regional	• Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in regionally important numbers. • Species present in regionally important numbers (>1% of regional population). • Sustainable populations of species that are rare or scarce within a region. • Species on the BoCC Red List and which regularly occurs in regionally important numbers.

[4] 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] Sussex Ornithological Society (2020) *The Sussex Bird Report 2019 (vol. 72)*.

Nature Conservation Value	Selection Criteria
County	• Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in county important numbers. • Species present in county important numbers (>1% of county population). • Sustainable populations of species that are rare or scarce within a county or listed as priority species for nature conservation under S41 of the NERC Act. • A site designated for its county important assemblage of birds (e.g. a SINC site). • Species on the BoCC Red List and which regularly occur in county important numbers.
Local	• Other species of conservation interest (e.g. all other species on the BoCC Red and Amber List or listed as Priority Species under Schedule 41 of the NERC Act (2006) which are not covered above) regularly occurring in locally sustainable populations. • Sustainable populations of species which are rare or scarce within the locality.
Site	• Species that are common and widespread.

4.0 RESULTS

Desk Study

Designated Sites

International Statutory Designated Sites

4.1 The Multi-Agency Geographic Information for the Countryside (MAGIC) website indicates that there is one internationally designated site within 15km of the application boundary designated for the bird assemblages they include.

4.2 Ashdown Forest SPA and SAC: located approximately 8km northeast, the site comprises a mosaic of wet and dry heath, valley bog and woodland, and supports nationally important numbers of breeding nightjar *Caprimulgus europaeus* and Dartford warbler *Sylvia undata*. Other regularly occurring notable species include woodlark *Lullula aborea*, hen harrier *Circus cyaneus*, and great grey shrike *Lanius excubitor*.

National Statutory Designated Sites

4.3 The Multi-Agency Geographic Information for the Countryside (MAGIC) website indicates that there are two statutory designated sites of national importance within 2km of the Site boundary.

4.4 Scrase Valley LNR: located approximately 330m southwest, the site is composed of 15 acres of woodland, marsh, scrub and flood meadows.

4.5 Eastern Road LNR: located approximately 60m north, the site occupies a 26-acre site and is a mixture of meadows, hedges, and woodland copses, as well as a wetland area with a number of ponds and small pools, an orchard, a wildflower meadow and a butterfly garden.

Non-Statutory Designated Sites

4.6 Data received from SxBRC identified three non-statutory site of local nature conservation importance within 1km of the application boundary.

4.7 Costells, Henfield and Nashill Woods LWS: located approximately 900m east, the site is an area of ancient woodland and has been designated an area of wildlife importance. Broadleaf trees inhabit the area and ground flora includes orchids. Several small ponds are found in the site alongside an extensive path network.

4.8 Walstead Cemetery LWS: located approximately 300m east, the site is a small rural cemetery near Haywards Heath. The site contains areas of species rich lowland meadow grassland. However, its most important feature is the rich assemblage of grassland fungi species, which is of national significance, and also includes many species that are rare in the county.

4.9 Western Road Cemetery LWS: located approximately 1.2km southwest, the site is of significant botanical and fungal interest. The cemetery comprises neutral grassland with scattered trees and to the south of the cemetery lies a block of lowland mixed deciduous woodland.

Notable Bird Records

4.10 Numerous bird species records within 1km of the site were returned from SxBRC. These included some records with two or four figure grid references (i.e. low resolution) that could not be mapped

accurately but are described in the main report. These records comprised rarer species with some conservation significance, i.e. species of principal importance under NERC S41, or listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended):

- Swift *Apus apus*
- Kingfisher *Alcedo* atthis
- Mallard *Anas platyrhynchos*

Field Surveys

4.11 A total of 19 bird species were recorded from within the Site (Appendix H-1) during the 2020/23 surveys. Of these, six appear on one or more of the following and are hereinafter referred to as 'notable' species.

- Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)
- BoCC Red or Amber lists
- Section 41 of the NERC Act 2006

Table 3: Protected and Notable Species Recorded on Site in 2020 and 2023

Species	Legal/ Conservation status	Peak Count / Number of Survey Occasions Recorded	Recent Status in Essex
Kestrel *Falco tinnunculus*	Amber list	(1 flyover) / 1	Fairly common or common resident and passage migrant.
Stock dove *Columba oenas*	Amber list	1 / 1	Common resident and possible winter visitor.
Woodpigeon *Columba palumbus*	Amber list	102 / 2	Abundant resident and winter visitor.
Wren *Troglodytes troglodytes*	Amber list	1 / 1	Abundant resident.
Redwing *Turdus iliacus*	Amber list WCA Sch.1	(3 flyovers) / 2	Common, occasionally very common, passage migrant and winter visitor.
Dunnock *Prunella modularis*	Amber list NERC S.41	1 / 1	Very common resident.

4.12 An additional seven species were recorded within the area of the blueline boundary that does not overlap with the redline boundary, including three notable species:

- Marsh tit *poecile palustris*
- Redwing *Turdus iliacus*
- House sparrow *Passer domesticus*

4.13 The bird species recorded were typical of the habitats that dominate the Site, comprising primarily of grassland, individual trees and treelines, and hedgerows.

4.14 The grassland habitat provided foraging opportunities for a number of common and widespread generalist species, including woodpigeon *Columba palumbus*, carrion crow *Corvus corone*, magpie *Pica pica*, and jackdaw *Corvus monedula*. A kestrel *Falco tinnunculus* was observed flying over the site that may forage within the field compartments. Other birds of prey may also hunt within this onsite habitat, such as buzzard *Buteo buteo* that was observed flying over the blueline area. Other species that may forage in this habitat include thrush species, such as redwing *Turdus iliacus* that was recorded within the blueline boundary and flying over the site, and fieldfare *Turdus pilaris* that often forms large winter flocks with redwing.

4.15 Hedgerow, individual trees, and treeline habitats onsite provided foraging opportunities for a number of common and widespread, generalist and woodland species, including blackbird *Turdus merula*, robin *Erithacus rubecula*, green woodpecker *Picus virdis*, and the common tit and corvid species recorded. Notable species, including dunnock *Prunella modularis*, wren *Troglodytes troglodytes*, stock dove *Columba oenas*, and woodpigeon *Columba palumbus* were recorded. The 2020 survey that extended to the blueline boundary recorded marsh tit *Poecile palustris* and redwing utilising these features in the area excluding the Site, particularly at the edges of Little Walstead Wood that also borders the northeast corner of the Site. House sparrow was also observed near the existing residential area to the east of the southeast corner of the blueline boundary.

Evaluation

Bird Assemblage

Assemblages

4.16 The grassland habitats provided foraging resources for corvid and pigeon species, as well as opportunities for kestrel. Other wintering species may also utilise this habitat, including redwing that was recorded within close proximity to the Site. Although notable species were recorded, these are fairly common to abundant in Sussex and grassland fields are an abundant feature of the surrounding landscape. It is provisionally considered that the development of the Site will lead to no more than a minor impact on the species present at a **Local** scale.

4.17 Hedgerow, individual tree, and treeline habitats throughout the site provided suitable foraging habitat for an assemblage of common and widespread generalist species throughout the year. The assemblage recorded was considered typical of the habitats present, which are a common feature of the surrounding landscape, and whilst some notable species were recorded, they are all common to abundant in Sussex. It is provisionally considered that the development of the Site will lead to no more than a minor impact on the species present at a **Local** scale.

Individual Species

4.18 An initial assessment of the bird species recorded from the Site suggests that are no wintering birds that qualify as being of at least **Local** importance.

4.19 All of the bird species were either recorded in small numbers, were recorded flying over the site, and/or are considered common and widespread species. These individual species that make use of the available habitats are provisionally recognised as being of only **Site** importance.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 The following section provides an assessment of the potential impacts of the proposals upon wintering birds. Where appropriate, recommendations are provided for mitigation and enhancement that take account of the likely ecological effects. Throughout the evaluation, any recommendations for mitigation have been informed by the Site Framework Plan.

5.2 The proposed residential and commercial development will comprise associated green space, including SuDS, and retained and enhanced hedgerow, scrub, and tree planting.

5.3 The recommendations below have been given with the aim of informing development proposals on how to best maintain the conservation status of bird species present.

Impact Assessment

5.4 The potential impact of the loss or change of habitat upon wintering bird species arising from the effects of development is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded on Site, their nature conservation criteria based on legislation and current guidance, their county status according to *The Essex Bird Report 2019*, and professional judgement.

5.5 One scoping survey in 2020 and an update scoping survey in 2023 were conducted to assess the wintering bird assemblage; whilst caution should be taken when inferring results, these do provide an indication for which species may utilise the onsite habitats and thus be affected by the development.

5.6 The following potential impacts to the recorded bird populations and assemblage may result from the proposals:

- Direct loss/change of breeding habitat.
- Disturbance during habitat creation and/or operation.

Habitat Loss

5.7 The proposals will lead to a partial loss of grassland habitat across the Site. The hedgerow and treeline habitats are largely to be retained, except for few small gaps to facilitate access. Proposed green infrastructure includes retained vegetation, proposed tree planting, grassland and wildflower meadows, scrub and hedgerow planting, and SuDS attenuation basins.

5.8 The existing grassland provided suitable foraging habitat for woodpigeon, kestrel, corvids, and thrush species; however, the scoping surveys did not record significant number of any of these species and the habitat type is an abundant feature of the surrounding landscape, which will reduce the scale of any adverse impact. Furthermore, the proposed green infrastructure to include a species-rich grassland and wildflower meadow is likely to benefit these and other species through enhanced and more diverse foraging opportunities.

5.9 The retention of the majority of hedgerows and trees in addition to the introduction of green infrastructure planting will continue to provide suitable foraging habitats for the generalist species recorded. This will include wren and woodpigeon, which will readily habituate to human disturbance. House sparrow was recorded offsite but is likely to benefit from the increase in residential environs.

The proposed supplementary and novel green infrastructure will more than adequately mitigate for any hedgerow losses that occur.

5.10 The proposed new wetland features onsite should be enhanced by the planting of aquatic and marginal species, which would improve foraging opportunities for the range of generalist species recorded. Indeed, a number of notable species are likely to benefit from the proposals. It is therefore considered that development of the Site will result in a beneficial impact to the majority of the generalist bird populations recorded.

Disturbance Impacts

5.11 Construction operations have the potential to disturb birds using the Site for roosting, foraging, and breeding. Operations likely to disturb birds include noise from vegetation clearance, initial ground works and some construction activities, such as piling, which are of low frequency but of high amplitude. Active, high level, infrequent disturbance causes most birds to be displaced for short periods[6].

5.12 The increase in domestic animals during the operational phase, particularly cat, may lead to an effect on small bird populations. Recent research is inconclusive as to the actual effect that domestic cats can have on wild populations. However, (although some species may be more susceptible to predation than others) it is considered unlikely that the increased abundance of cats would alter the conservation status of any of the wintering birds assemblages present in this instance, with the magnitude of any such impact reduced by the retention of hedgerows and trees, which will continue to provide cover and screening from potential predators. It is therefore considered that the impact of cats will be of negligible significance.

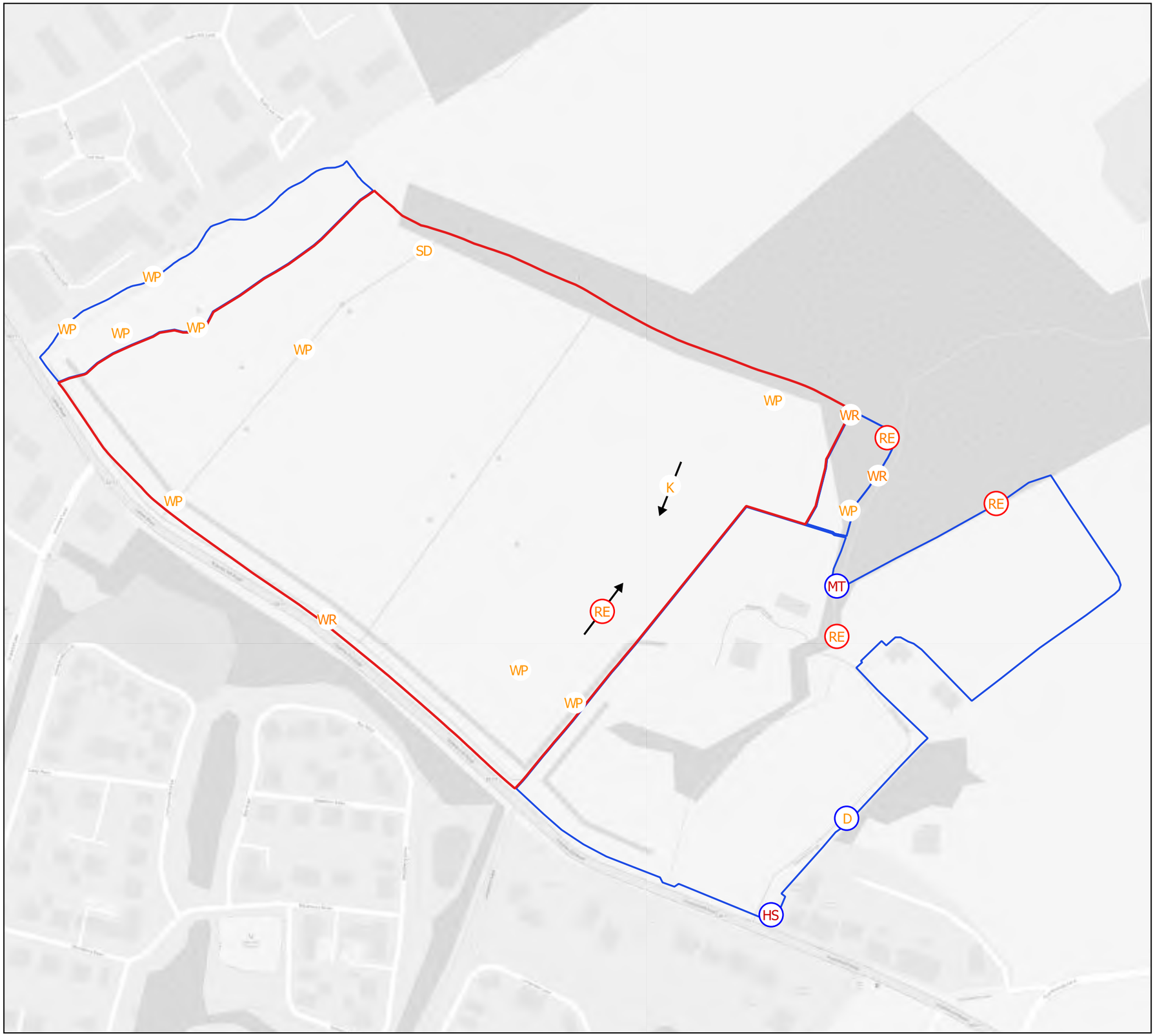
Enhancements

5.13 Additional tree, scrub, and hedgerow planting will provide additional foraging habitat for a range of bird species. Where possible it is recommended that consideration is given to the provision of native, fruit bearing species of local origin to provide an optimal foraging resource for a range of bird species. This could include sloe *Prunus spinosa* and rowan *Sorbus aucuparia* that would benefit thrush species, such as redwing and fieldfare.

5.14 Habitat creation is to include areas of meadow grassland that will provide foraging opportunities for a wide range of species, including skylark, starling, and seed-specialists such as greenfinch.

5.15 Attenuation features should be planted with an appropriate marginal vegetation mix that includes species such as hemp agrimony *Eupatorium cannabinium*, water avens *Geum rivale*, yellow flag iris *Iris pseudacorus*, and greater birdsfoot trefoil *Lotus pedunculatus*, which will provide further foraging opportunities for generalist species.

[6] Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V., and Barker, M. 1992 Examination of the effects of disturbance on birds with reference to the role of environmental impact assessments. Journal of Environmental Management, 36, 253–286



Key

- Redline Boundary
- Blueline Ownership Boundary
- Fly over only

BoCC Red List Species

- HS House Sparrow
- MT Marsh Tit

BoCC Amber List Species

- D Dunnock
- K Kestrel
- SD Stock Dove
- RE Redwing
- WP Woodpigeon
- WR Wren

Additional Protections:

- Schedule 1 Species

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masterplanning environmental assessment landscape design ecology architecture arboriculture

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N

client
Gladman Developments Ltd.

project
Walstead Grange,
Lindfield

drawing title
WINTER BIRD SURVEY RESULTS PLAN - DISTRIBUTION OF NOTABLE SPECIES 2020/23

scale @ A3 1:2,100 | drawn REM / DLS | issue date 11/7/2024

drawing / figure number **Figure H-1** | rev -

K:\9400\9432\ECO\QGIS\QGIS 2.14\Plans\Bird Figures\BoCC5 - WBS Plan Template\BoCC5 - WBS Plan Template\9432-E-H1 Winter Bird Survey Results Plan - Distribution of Notable Species.qgs

Appendix H-1: Walstead Grange, Lindfield – Winter Bird Survey Results

Survey	Surveyor	Date	Cloud (%)	Rain	Wind	Visibility
1	LC	24.11.20	50	0	1	Very Good
2	REM	20.11.23	80	0	1	Good

Species: British Common Name	Species: Latin name	Survey 1 (Red line boundary)	Survey 1 (Blue line boundary, excluding red)	Survey 2	Conservation Status & Protection
Pheasant	*Phasianus colchicus*	-	4	-	Not listed
Cormorant	*Phalacrocorax carbo*	-	(1 flyover)	(1 flyover)	Green list
Buzzard	*Buteo buteo*	-	(1 flyover)	-	Green list
Kestrel	*Falco sparverius*	-	-	(1 flyover)	Amber list
Woodpigeon	*Columba palumbus*	102	36	27	Amber list
Stock dove	*Columba oenas*	-	-	1	Amber list
Great spotted woodpecker	*Dendrocopos major*	-	1	-	Green list
Green woodpecker	*Picus viridis*	-	-	1	Green list
Jay	*Garrulus glandarius*	-	-	2	Green list
Magpie	*Pica pica*	11	-	7	Green list
Jackdaw	*Corvus monedula*	11	3	24	Green list
Carrion crow	*Corvus corone*	5	-	5	Green list
Goldcrest	*Regulus regulus*	-	4	-	Green list
Blue tit	*Cyanistes caeruleus*	6	5	3	Green list

Species: British Common Name	Species: Latin name	Survey 1 (Red line boundary)	Survey 1 (Blue line boundary, excluding red)	Survey 2	Conservation Status & Protection
Great tit	*Parus major*	1	-	-	Green list
Marsh tit	*Poecile palustris*	-	2	-	Red list NERC S.41
Long-tailed tit	*Aegithalos caudatus*	2 Families	-	-	Green list
Nuthatch	*Sitta europaea*	-	1	-	Green list
Wren	*Troglodytes troglodytes*	1	4	-	Amber list
Blackbird	*Turdus merula*	5	2	1	Green list
Redwing	*Turdus iliacus*	-	32	(3 flyovers)	Amber list WCA Sch.1
Robin	*Erithacus rubecula*	4	5	4	Green list
Dunnock	*Prunella modularis*	1	1	-	Amber list NERC S.41
House sparrow	*Passer domesticus*	-	1 Colony	-	Red list NERC S.41
Siskin	*Spinus spinus*	(3 flyovers)	-	-	Green list
Total No. Species		13	16	13	19 (excluding blue line boundary only count)

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX I - GREAT CRESTED NEWT SURVEY REPORT

July 2024

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	NK / 17.07.2024	AU / 17.07.24

CONTENTS

TABLES

FIGURES

APPENDICIES

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd. Its purpose is to present the results of great crested newt (GCN) surveys completed at the Land off Scamps Hill, Lindfield (central OS grid reference TQ 6372 4961) herein referred to as 'the Site'.

1.2 The scope and objectives of the report are to:

- present the findings of the GCN surveys undertaken in 2020 and 2021.
- assess the relative importance of the survey area for GCN.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement.

Site Context

1.3 The Site is located within the village of Lindfield. Lindfield Rural is a parish located in the central eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

1.4 The survey area measures approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor neutral grassland field compartments, separated by mature hedgerows and trees.

1.5 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

Site Proposals

1.6 A full planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION AND POLICY

2.1 Great crested newts and the places they use for refuge and breeding are protected under Schedule 2 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats & Species Regulations 2017 (as amended).

2.2 They are also a European Protected Species (EPS) and protected under Annexes II and IV of the EU Habitats and Species Directive and Appendix II of the Bern Convention.

2.3 In summary, it is an offence to:

- deliberately or recklessly take, injure or kill a great crested newt.
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for breeding, shelter or protection by the species.
- intentionally or recklessly disturb while it is occupying a structure or place which it uses for such purpose.
- intentionally take or destroy the eggs of a great crested newt.

2.4 This legislation equally protects all life stages, including eggs, efts and adults.

2.5 Proposals which could lead to any of the above would require a derogation licence from Natural England alongside appropriate avoidance, mitigation and compensation measures.

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was collected from the following consultees and sources:

- Sussex Biodiversity Records Centre (SxBRC)
- Multi Agency Geographic Information for the Countryside (MAGIC)

3.2 Further inspection of aerial photographs from Google Earth (www.maps.google.co.uk) was also undertaken to provide additional context and identify any waterbodies within 250m of the site boundary.

Habitat Suitability Survey

3.3 The habitats within the survey area were assessed for their potential to support GCNs during both their breeding and terrestrial phases, including an assessment of waterbodies. In addition, in 2020 access was sought to assess waterbodies within a 250m radius of the survey area which had suitable connective habitat to the site (*Figure 1*).

3.4 All accessible waterbodies were assessed using a Habitat Suitability Index (HSI)[1]. The HSI incorporates ten suitability indices, all of which are factors known to affect this species:

- Geographic location
- Pond area
- Pond drying
- Water quality
- Shade
- Presence of waterfowl
- Presence of fish
- Number of linked ponds
- Terrestrial habitat
- Macrophytic coverage

3.5 A score is assigned for each attribute and a total score is calculated between 0 and 1. Pond suitability is then determined according to the scale in *Table 1*:

Table 1: HSI scale

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

[1] Oldham, R.S., Keeble, K., Swan, M.J.S. & Jeffcote, M. (2000) Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal*, 10(4), 143-155.

eDNA Survey

3.6 eDNA sampling was undertaken ponds P1-P3 and ditch D3 (*Figure 1*) on 15th April 2021 by a licensed ecologist (2021-50978-CLS-CLS) in accordance with the recommended protocol[2].

3.7 20 agitated water samples were taken from the pond, mixed thoroughly and then 15ml placed into six tubes. They were sent to the ADAS laboratory in Helsby, Chester for analysis. The possible results are summarised in *Table 2:*

Table 2: Possible Results of eDNA Analysis

Result	Description
Positive	GCN eDNA was detected and they have been present within the water in the 20 days preceding the survey. A score is provided indicating the number of positive replicates from a series of twelve.
Negative	GCN eDNA was not detected. Where samples are negative, further testing for PCR inhibitors and degradation of the sample is undertaken to confirm the negative result.
Inconclusive	Controls indicate degradation or inhibition of the sample. Therefore, the lack of detection of GCN eDNA is not conclusive evidence for determining the absence of GCN using the sample provided.

[2] Biggs, J. *et al.* (2014) *Analytical and Methodological Development for Improved Surveillance of the Great Crested Newt. Appendix 5: Technical advice note for field and laboratory sample of great crested newt (Triturus cristatus) environmental DNA.* Freshwater Habitats Trust, Oxford.

4.0 RESULTS

Desk Study

4.1 SxBRC returned 3 historical records for GCN within 1km of the site in 2023. These records ranged in age from 1988-2007.

4.2 A search of MAGIC revealed the closest EPS mitigation licence issued for GCNs was approximately 1.15km north (Reference: 2017-28100-EPS-MIT).

4.3 There were no waterbodies identified on site, but three ponds and one ditch were found within 250m of the red line boundary (*Figure 1*).

Habitat Suitability

4.4 Due to a lack of waterbodies, there was no suitable breeding habitat for GCNs on site.

4.5 Some suitable terrestrial habitat was present on site, limited to the areas of scrub, tall ruderal vegetation and tussock grassland.

4.6 A description of ponds P1-3 and ditch D3 and the HSI results are summarised in *Table 3:*

Table 3: Descriptions and HSI Scores for Nearby Waterbodies

Pond	Location & Distance from Site	Description	HSI Score
P1	TQ 3544 2473 95m SE	Medium pond (approx.400m^2) with aquatic and marginal vegetation including waterlily, arrowhead *Sagittaria sagittifolia*, Canadian waterweed *Elodea canadensis* and reedmace *Typha latifolia.*	Good
P2	TQ 3564 2496 185m NE	Large pond (approx. 1,800m^2) just north-east of Little Walstead Wood.	Good
P3	TQ 3557 2490 130m E	Small pond (approx. 40m^2) within Little Walstead Wood. Very shaded with no aquatic vegetation.	Below Average
D3	TQ 3550 2483 50m E	Small ditch running along the south-east boundary of Little Walstead Wood and connected with Northland Brooks.	N/A

eDNA Survey

4.7 Ponds P1-P3 and ditch D3 all received a negative eDNA result in 2021, indicating GCN absence. The ADAS results letter is provided in Appendix 1.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Records and surveys indicate that GCN are likely absent on site. Whilst this species can travel long distances, studies have shown they rarely disperse more than 250m[3], and are likely to stay within 20m of ponds with suitable habitat after breeding[4]. Furthermore, the adjacent road and stream limit connectivity to site. As such, GCN are not considered a constraint to development.

Enhancements

5.2 There are several enhancements designed into the scheme that will benefit amphibians post-development. These include:

- Wildflower meadow creation with a reduced mowing regime in the east.
- The boundaries will be enhanced with native hedgerow, tree and shrub planting, creating a mosaic of structures and improving connectivity around the site.
- Log piles will be created from felled trees within strategic locations in the green infrastructure around the site.

[3] Cresswell W. & Whitworth R. (2004) *Report no. 576 An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*. English Nature, Peterborough.

[4] Jehle, R. & Arntzen, J. W. (2000) Post-breeding migrations of newts with contrasting ecological requirements. *Journal of Zoology, London*, 251**:** 297-306.

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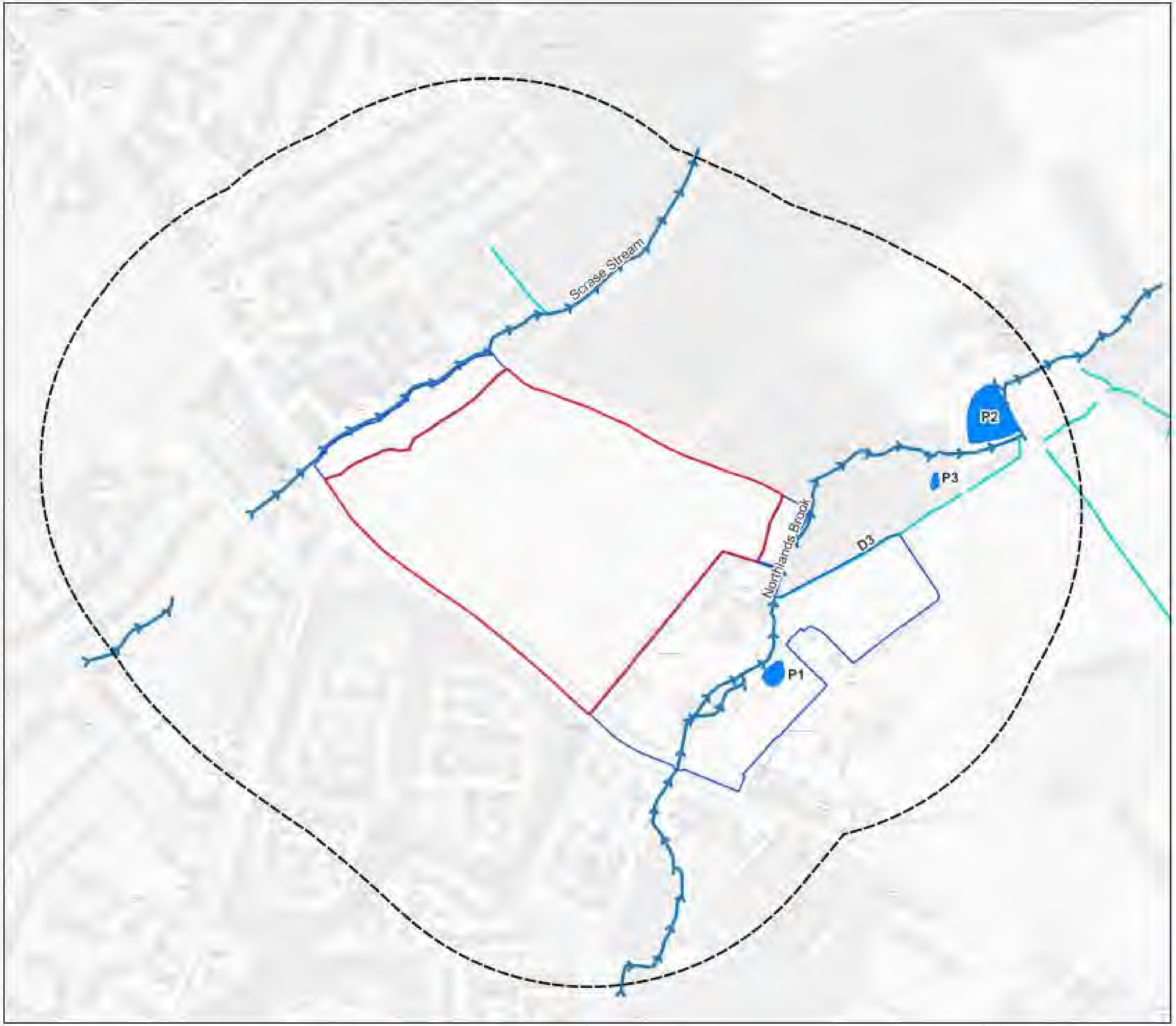

Key

- Redline Boundary
- Blueline Ownership Boundary
- 250m buffer
- Ponds
- Ditches
- Streams

0 100 200 m

Gladman Developments Ltd

Land off Scamp's Hill, Lindfield

WATERBODY LOCATION PLAN

Figure 1

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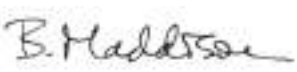
Sample ID: ADAS-0203	Condition on Receipt: Good	Volume: Passed
Client Identifier: 9432 Pond 1	Description: pond water samples in preservative	
Date of Receipt: 19/04/2021	Material Tested: eDNA from pond water samples	

Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control[†]	2 of 2	Real Time PCR	21/04/2021
Degradation Control[§]	Within Limits	Real Time PCR	21/04/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	21/04/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)[#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	28/04/2021	Date of issue:	28/04/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#]Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

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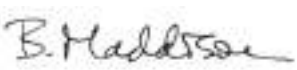
Sample ID: ADAS-0204	Condition on Receipt: Good	Volume: Passed
Client Identifier: 9432 Pond 2 (large pond)	Description: pond water samples in preservative	
Date of Receipt: 19/04/2021	Material Tested: eDNA from pond water samples	

Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control[†]	2 of 2	Real Time PCR	27/04/2021
Degradation Control[§]	Within Limits	Real Time PCR	27/04/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	27/04/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)[#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
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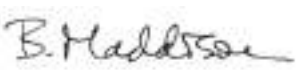
Sample ID: ADAS-0205	Condition on Receipt: Good	Volume: Passed
Client Identifier: 9432 Woodland Pond 3	Description: pond water samples in preservative	
Date of Receipt: 19/04/2021	Material Tested: eDNA from pond water samples	

Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control[†]	2 of 2	Real Time PCR	21/04/2021
Degradation Control[§]	Within Limits	Real Time PCR	21/04/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	21/04/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)[#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
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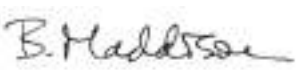
Sample ID: ADAS-0217	Condition on Receipt: Medium Sediment	Volume: Passed
Client Identifier: 9432 D3	Description: pond water samples in preservative	
Date of Receipt: 19/04/2021	Material Tested: eDNA from pond water samples	

Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control[†]	2 of 2	Real Time PCR	26/04/2021
Degradation Control[§]	Within Limits	Real Time PCR	26/04/2021
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	26/04/2021
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)[#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	28/04/2021	Date of issue:	28/04/2021

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#]Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

Appendix 1: Interpretation of results

Sample Condition

Upon sample receipt we score your samples according to quality: good, low sediment, medium sediment, high sediment, white precipitate, and presence of algae.

There are three reasons as to why sediment should be avoided:

1. It is possible for DNA to persist within the sediment for longer than it would if it was floating in the water which could lead to a false positive result i.e. in this case GCN not recently present but present a long time ago
2. In some cases sediment can cause inhibition of the PCR analysis used to detect GCN eDNA within samples which could lead to an indeterminate result.
3. In some cases sediment can interfere with the DNA extraction procedure resulting in poor recovery of the eDNA which in turn can lead to an indeterminate result.

Algae can make the DNA extraction more difficult to perform so if it can be avoided then this is helpful.

Sometimes samples contain a white precipitate which we have found makes the recovery of eDNA very difficult. This precipitate can be present in such high amounts that it interferes with the eDNA extraction process meaning that we cannot recover the degradation control (nor most likely the eDNA itself) at sufficient levels for the control to be within the acceptable limits for the assay, therefore we have to classify these type of samples as indeterminate.

What do my results mean?

A positive result means that great crested newts are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).

A negative result means that DNA from the great crested newt has not been detected in your sample.

On occasion an inconclusive result will be issued. This occurs where the DNA from the great crested newt has not been detected but the controls have indicated that either: the sample has been degraded and/or the eDNA was not fully extracted (poor recovery); or the PCR inhibited in some way. This may be due to the water chemistry or may be due to the presence of high levels of sediment in samples which can interfere with the DNA extraction process. A re-test could be performed but a fresh sample would need to be obtained. We have successfully performed re-tests on samples which have had high sediment content on the first collection and low sediment content (through improved sample collection) on the re-test. If water chemistry was the cause of the indeterminate then a re-test would most likely also return an inconclusive result.

The results will be recorded as indeterminate if the GCN result is negative and the degradation result is recorded as:

1. evidence of decay - meaning that the degradation control was outside of accepted limits
2. evidence of degradation or residual inhibition - meaning that the degradation control was outside of accepted limits but that this could have been due to inhibitors not being removed sufficiently by the dilution of inhibited samples (according to the technical advice note)

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX J - HAZEL DORMOUSE SURVEYS

July 2024

FPCR Environment and Design Ltd
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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	CHK / 08.12.23	DAH / 02.01.24
A	Final	CHK AU NK / 17.07.2024	AU / 18.07.24

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TABLE

FIGURE

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment & Design Ltd on behalf of Gladman Developments Ltd to outline the results of the hazel dormouse surveys completed at Land off Scamps Hill, Lindfield (central OS Grid Reference: TQ 35218 24891), herein referred to as 'the Site'.

1.2 The scope and objectives of this report are to:

- detail the findings of surveys completed to date in 2024.
- detail any further surveys required.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement.

Site Context

1.3 The Site is located within the village of Lindfield. Lindfield Rural is a parish located in the central eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

1.4 The survey area measures approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor neutral grassland field compartments, separated by mature hedgerows and trees.

1.5 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

Site Proposals

1.6 A full planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION AND POLICY

2.1 The hazel dormouse is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species (EPS) under the Conservation of Habitats & Species Regulations 2017 (as amended). This is also a species of principal importance for the conservation of biodiversity under section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2.2 In summary, it is an offence to:

- intentionally or deliberately kill, injure or capture dormice;
- intentionally, deliberately or recklessly disturb dormice in such a way as to significantly affect their ability to survive, breed, rear/nurture their young or significantly affect their local distribution or abundance;
- intentionally or recklessly damage, destroy or obstruct access to places used by dormice for shelter or protection (whether occupied or not);
- intentionally or recklessly disturb a dormouse whilst occupying a place of shelter or protection;
- damage or destroy a dormouse breeding site or resting place;
- possess or transport a dormouse (or any part thereof) unless under licence; and
- sell or exchange dormice.

2.3 Proposals which could lead to any of the above would require a derogation licence from Natural England alongside appropriate avoidance, mitigation and compensation measures.

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was gathered from:

- Multi Agency Geographic Information for the Countryside (MAGIC)[1]
- Aerial photographs from Google Earth
- Sussex Biodiversity Records Centre (SxBRC)

3.2 When handling data, species records were filtered to those within the last ten years, unless considered relevant to the site assessment.

Presence/Likely Absence Surveys

3.3 Dormouse surveys were undertaken in accordance with current guidance by suitably qualified ecologists. Surveys involved placing standard dormouse nest tubes every 20m in suitable habitat, approximately 1.5m above ground. A total of 50 tubes were installed on site on 27th March 2024 (*Figure 1*). So far, surveys have been completed on 25th April, 20th May and 10th June 2024. Further surveys are scheduled between August and October 2024.

3.4 Guidelines provide an index of probability, which indicates the likelihood of finding dormice during the survey period (*Table 1*). The final survey score is calculated by multiplying the sum of the months that tubes were checked by the number of tubes used, based on 50 tubes as standard (i.e. 50=1). Fewer tubes reduce the score (i.e. 25 tubes = 0.5) and more tubes it (i.e. 100 tubes = 2). A survey effort score of 20 or above is required to provide confidence in the survey results.

Table 1: Index of probability for nest tube surveys

Month	Index of Probability
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

[1] MAGIC - https://magic.defra.gov.uk/

4.0 RESULTS

Desk Study

4.1 SxBRC returned 41 records of dormice within 2km of the site from 2005-2019. The closest record was approximately 115m south.

4.2 Four European Protected Species (EPS) mitigation licences for dormice were identified on MAGIC within 1km of site:

Table 2: Nearby EPS Licences

Licence Reference	Distance from Site	Duration	Reason
2017-31567-EPS-AD2-1	200m SW	2018-2023	Damage and destruction of a breeding and resting place
EPSM2013-6842	500m SW	2013-2019	Destruction of a breeding and resting place
EPSM2010-1800	500m NW	2010-2012	Destruction of a breeding and resting place
EPSM2011-3044	750m SW	2011-2013	Destruction of a breeding and resting place

Habitat Suitability

4.3 Suitable dormouse habitat was present on site in the form of scrub, hedgerows and treelines. The site is well connected to other suitable habitat in the wider landscape, including broadleaved woodland and thick hedgerows.

Presence/Likely Absence Surveys

4.4 No evidence of dormice has been identified on site during the surveys to date. However, surveys will continue until October 2024, to achieve an adequate survey effort score.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 The blackthorn and bramble scrub and the hedgerows within the Site contain native species, which have the potential to support hazel dormice, particularly within southern counties of the UK. Sussex is a good county for the hazel dormouse, where they are widespread within suitable habitats.

5.2 Currently, no evidence of dormouse has been found in the surveys so far, but the surveys will continue until October 2024. The Dormouse Survey Report will be updated after the surveys are completed, and it will include specific recommendations for mitigating any impact and enhancing the habitat if dormouse evidence is found during the remaining surveys.

5.3 It should be noted that the proposals involve retaining the majority of the hedgerow network on the site, with only minimal losses for access. This will be compensated for by creating scrub habitats and planting native, species-rich hedgerows. These actions will provide additional habitat for dormice, improve connectivity around the site, and extending into the surrounding areas.

Key

- Site Boundary
- Land Ownership Boundary
- Dormouse Tube Locations

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masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

0 50 100 m

K:\9400\9432\ECO\QGIS\QGIS 2.14\Plans\Dormouse Plan\9432 Dormouse Survey Plan July 2024.qgz

client
Gladman Developments Ltd

project
Walstead Grange,
Lindfield

drawing title
DORMOUSE SURVEY PLAN

scale @ A3
1:2000

drawn
LW

issue date
4/7/2024

drawing / figure number
Figure 1

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX K - REPTILE SURVEY REPORT

July 2024

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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	NK / 17.07.2024	AU / 17.07.24

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TABLES

FIGURE

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment & Design Ltd on behalf of Gladman Developments Ltd to outline the reptile survey results for Land off Scamps Hill, Lindfield (central OS Grid Reference: TQ 35218 24891), herein referred to as 'the Site'.

1.2 The scope and objectives of this report are to:

- present the findings of the reptile undertaken in 2024.
- assess the relative importance of the survey area for reptiles.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement.

Site Context

1.3 The Site is located within the village of Lindfield. Lindfield Rural is a parish located in the central eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

1.4 The survey area measures approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor neutral grassland field compartments, separated by mature hedgerows and trees.

1.5 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

Site Proposals

1.6 A full planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION AND POLICY

2.1 All common reptile species, including common lizard and grass snake, 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.

2.2 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[1] and the Amphibian and Reptile Groups of the UK[2] 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.

2.3 All common reptiles are also included on the list of species of principal importance for the conservation of biodiversity in England as required under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. The S41 list is used to guide decision-makers, including local planning authorities, in implementing their duty under section 40 of the Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

[1] English Nature (2004) *Reptiles: guidelines for developers*. English Nature, Peterborough.

[2] Herpetofauna Groups of Britain and Ireland (1998) *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards.* HGBI advisory notes for Amphibian and Reptile Groups (ARGs).

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was gathered from:

- Multi Agency Geographic Information for the Countryside (MAGIC)[3]
- Aerial photographs from Google Earth
- Sussex Biodiversity Records Centre (SxBRC)

3.2 When handling data, species records were filtered to those within the last ten years, unless considered relevant to the site assessment.

Presence/Likely Absence Surveys

3.3 Strategic reptile presence/likely absence surveys were undertaken within the site following current guidance[4,5,6], in June, September and October 2019 (*Table 1*)

3.4 Artificial refugia (0.5-1m^2 sections of roofing felt) were placed throughout the survey area (*Figure 1*) at a density of ten refugia per hectare of suitable reptile habitat. They were left to bed in for a month before seven survey visits were undertaken by experienced FPCR ecologists in suitable weather conditions (*Table 1*). These include air temperatures between 9-19°C in the absence of strong winds and heavy rain.

3.5 Each survey visit included the following:

- Checking all refugia within the site at least once;
- Approaching refugia carefully from downwind and without casting a shadow so as not to disturb basking animals;
- Lifting and replacing refugia with care to check for the presence of reptiles underneath;
- Checking other suitable basking areas and resting places within the site, such as log piles.

Table 1: Reptile Survey Weather Conditions

Date & Time	Weather
11th April 2024 – 10:32	13°C, dry, overcast, 90-100% cloud cover, moderate breeze
16th April 2024 – 10:30	10°C, dry, sunny, 80-90% cloud cover, light breeze
25th April 2024 – 11:04	11°C, bright, rain earlier in day, 60-70% cloud cover, light breeze
30th April 2024 – 10:24	15°C, bright, clear, dry, 10-20% cloud cover, light breeze
9th May 2024 – 08:57	14°C, bright, dry, 0-10% cloud cover, no wind
20th May 2024 – 08:05	13°C, bright, rain earlier in the day, 0-10% cloud cover, no wind
11th July 2024 – 17:14	19°C, bright, clear, 30-40% cloud cover, light breeze

[3] MAGIC - https://magic.defra.gov.uk/

[4] Gent, T. & Gibson, S. (eds) (2003) *Herpetofauna Workers' Manual*. JNCC, Peterborough.

[5] Froglife (2016) *Surveying for reptiles: Tips, techniques and skills to help you survey for reptiles*. Froglife, Peterborough.

[6] Natural England & Defra (2015) *Reptiles: surveys and mitigation for development and projects.* Natural England, Peterborough.

Population Assessment

3.6 Reptile populations were assessed in accordance with the Key Reptile Site Register criteria[7]. 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: Reptile Population Categories

Species	Low Population (no. of individuals)	Good Population (no. of individuals)	Exceptional Population (no. of individuals)
Adder *Vipera berus*	<5	5-10	>10
Grass Snake *Natrix helvetica*	<5	5-10	>10
Common Lizard *Zootoca vivipara*	<5	5-20	>20
Slow Worm *Anguis fragilis*	<5	5-20	>20

[7] Froglife (1999) *Reptile survey: an introduction to planning, conducting, and interpreting surveys for snake and lizard conservation.* Froglife Advice Sheet 10. Froglife, Halesworth.

4.0 RESULTS

Desk Study

4.1 SxBRC returned the following:

- 17 grass snake records from 1994-2018, the closest approximately 60m south.
- 5 common lizard records from 2009-2018, the closest approximately 60m south.

Habitat Suitability

4.2 Suitable reptile habitat was present on site in the form of grassland, scrub, ruderal vegetation and hedgerows. The site is connected to other suitable habitat in the wider landscape, including grassland and scrub.

Presence/Likely Absence Surveys

4.3 Only one juvenile grass snake was found in the north-west part of site (*Figure 1*) on 30th May 2024. No other reptiles were found on site during any other survey checks.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 One juvenile grass snake was identified on site. Whilst only one reptile was identified during surveys, it is anticipated that a low population of grass snake and common lizard could use the site due to records close to site in the wider area.

5.2 In the absence of mitigation, there is potential for an adverse impact on reptiles due to the development. These impacts include:

- Loss of habitat through vegetation clearance
- Population fragmentation
- Incidental harm during site clearance

5.3 Recommended mitigation measures will therefore aim to avoid killing or injuring to reptiles during works and maintain their local conservation status post-development.

5.4 The proposed mitigation is to passively displace the reptiles to retained areas of green space and will involve the following:

- **Timing** – Displacement will take place between late March and early October when reptiles are active during suitable weather conditions (day temperature above 10°C).
- **Toolbox talk** – The site manager and relevant staff will be briefed by the supervising ecologist on the presence of reptiles on site, the legislation protecting them and the procedures to take if reptiles are found during clearance and construction works.
- **Clearance** – The vegetation will be given two cuts under ecological supervision. The first cut will strim the vegetation to a height of 250mm above ground and in the direction of retained boundary habitats. The second cut to ground level will take 1-2 hours later under ecological supervision. Any potential refuges/hibernacula, such as log piles, will be carefully removed by hand. Any reptiles found will be placed in areas of retained habitats by the supervising ecologist. Once the two-stage cut is complete, the topsoil can be removed to make the developable areas unsuitable for reptiles and it will be maintained as such during works.
- **Protection** – Where suitable habitats are to be retained, they will be protected during construction using heras fencing with clear signage to prevent machinery and materials entering these areas.

5.5 If prior to works commencing, the site becomes more suitable for reptiles i.e. the vegetation is left to grow, then further surveys and a reptile translocation may be required.

5.6 To compensate for habitat loss, the northern boundaries of the site will form areas of enhanced greenspace and the south-east portion of the site will be retained and enhanced. Habitat creation will include wildflower grassland, wet meadow within the SUDS and native shrub planting to provide connectivity and cover around the site. Log piles will be created throughout the greenspace. The new habitats will provide structural diversity and areas for refuge, hibernation and foraging, thereby maintaining the reptile population on site post-development.

Key

- Redline Boundary
- Blueline boundary
- Reptile Tin Locations
- Grass Snake

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client
Gladman Developments Ltd

project
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drawing title
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scale @ A3

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drawing / figure number
Figure 1

rev
9432-E-01

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

APPENDIX L - RIPARIAN MAMMAL SURVEY REPORT

July 2024

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Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	NK / 17.07.2024	AU / 18.07.24

CONTENTS

TABLE

1.0 INTRODUCTION

1.1 The following report has been compiled by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd and provides details of riparian mammal surveys completed at Land off Scamps Hill, Lindfield (central grid reference: TL1601635160), herein referred to as 'the Site'.

1.2 The scope and objectives of the report are to:

- present the findings of the surveys undertaken to date in 2024.
- assess the relative importance of the survey area for water vole and otter.
- review the site proposals and provide recommendations for mitigation, compensation and enhancement (if required).

Site Location and Context

1.3 The Site is located within the village of Lindfield. Lindfield Rural is a parish located in the central eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

1.4 The survey area measures approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor neutral grassland field compartments, separated by mature hedgerows and trees.

1.5 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

Site Proposals

1.6 A full planning application for a residential development of up to 90 dwellings with associated infrastructure and greenspace.

2.0 LEGISLATION

Otter

2.1 The European otter *Lutra lutra* is fully protected under Schedule 5 of the Wildlife & Countryside Act (WCA) 1981 (as amended) due to the protection afforded to their places of shelter and protection. They are afforded protection under Section 9 parts 4(a) and 4(b). This makes it an offence to:

- Intentionally or recklessly kill, injure or take this species
- Possess or control live or dead species or derivatives
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb this species whilst occupying a structure or place used for that purpose
- Sell this species or offer or expose for sale or transport for sale
- Publish or cause to be published any advertisement which conveys the buying or selling of this species

2.2 The otter is also protected by the Conservation of Species and Habitats Regulations (CSHR) 2017 (as amended). In effect this legal protection makes it an offence to deliberately:

- Kill, take or injure an otter
- Damage or destroy an otter's place of shelter
- Disturb an otter whilst using such a place

2.3 The European otter is listed as a Species of Principal Importance in England under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.

2.4 Any operations that may lead to either a direct or indirect effect upon otter or their paces of rest or shelter require a Natural England European Protected Species (EPS) license. EPS licenses involve the production of a method statement detailing appropriate mitigation and compensation to ensure that the favourable conservation status of otter is not affected during the proposed operations.

Water Vole

2.5 The water vole *Arvicola amphibius* is fully protected under the WCA 1981 (as amended). This makes it an offence to:

- Intentionally kill, injure or take water voles
- Possess or control live or dead water voles or derivatives
- Intentionally or recklessly damage, destroy and obstruct access to any structure or place used by water voles for shelter or protection
- Intentionally or recklessly disturb water voles whilst they are using such a place
- Sell water voles or offer to expose for sale or transport for sale

- Publish or cause to publish any advertisement which conveys the buying or selling of water voles

2.6 Water voles are listed as a Species of Principal Importance under S41 of the NERC Act 2006.

2.7 If water voles are found to be present and impacts cannot be avoided, then a Licence from Natural England may be required, and suitable mitigation implemented to ensure this species comes to no detrimental harm during and after development and the scheme results in a conservation benefit to the species.

3.0 METHODOLOGY

Desk Study

3.1 To compile existing baseline information, relevant ecological information was gathered from:

- Multi Agency Geographic Information for the Countryside (MAGIC)[1]
- Aerial photographs from Google Earth
- Sussex Biodiversity Records Centre (SxBRC)

3.2 When handling data, species records were filtered to those within the last ten years, unless considered relevant to the site assessment.

Otter Surveys

3.3 So far, a single survey for otters has been carried out by experienced FPCR ecologists on 30th May 2024, followed current guidelines[2,3,4]. A second survey is scheduled for August 2024.

3.4 Due to the unlikely event of actual observation, the surveys concentrated on locating field signs indicating otter presence or use:

- Spraints – characteristic sweet-smelling, black tar-like (where fresh/relatively recent i.e. within a few weeks) or grey crumbly (when old) faecal deposits usually containing fish scales, bones and occasionally invertebrate exoskeleton and bird feathers.
- Footprints – in good substrate typically asymmetrical and showing five toes arched around a large pad and, depending on substrate, webbing and claw marks. Poorer, generally coarser substrates do not often enable the identification of otter footprints.

3.5 Additional signs of otter presence may occur, although without additional evidence are usually not conclusive proof of current otter presence, such as:

- Feeding remains – Remains of fish and aquatic invertebrates
- Slides/haul-outs – Routes into and out of the water, which are usually associated with terrestrial routes such as short cuts around meanders or along traditionally, used otter paths/routes.
- Couches/hovers – above ground resting place. Usually associated with cover such as dense scrub, rushes or reed, flood debris or fallen trees. Many couches are rarely used whilst others more so. Difficult to prove use without radio tracking.
- Holts – below ground resting site usually associated with sprainting. Sometimes used with greater frequency than couches and can be important for breeding (natal holts) where other signs are usually absent. Notoriously difficult to find or prove without radio tracking.

3.6 Otter surveys can be undertaken at all times of the year, if weather conditions are suitable prior to and during the surveys.

[1] MAGIC - https://magic.defra.gov.uk/
[2] RSPB, the National Rivers Authority, and the RSNC 1994
[3] Chanin, P (2003) *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough
[4] Chanin, P (2003) *Monitoring the European Otter*. Conserving Natura 2000 Rivers. Ecology Series No.10. English Nature, Peterborough

Water Vole Surveys

3.7 An initial habitat assessment was made by an experienced FPCR surveyor to determine the suitability of habitats within the Site to support water voles. Habitat requirements were based on those detailed in current guidance[5,6] and include:

- dry areas above water level for nesting, either in burrows or above-ground woven nests
- steep bank profiles
- suitable bank substrate for burrowing
- daily water level fluctuations
- herbaceous marginal and bankside vegetation
- suitable water depth (as a means of escape from predators)

3.8 The habitats can then be categorised according to the following matrix[5]:

Table 1: Water vole habitat categories

Habitat Category	Bank Profile	Bank Substrate	Variation in Water Level	Herbaceous Vegetation	Water Permanence
Optimal (all criteria need to be met)	Steep (approaching 1:1) on at least one side of a watercourse. Steep or shallow banks on static waterbodies or fen-type habitat, where water levels do not fluctuate significantly.	Earth or peat	No noticeable variation during the summer months. Banks are not topped regularly (overtopping every 5-10 years likely to be too frequent)	Continuous swathe of bankside or in-channel (emergent) vegetation providing at least 60% ground cover. May be dominated by grasses and weeds, rather than luxurious riparian vegetation. The vegetation should generally be tall, except in urban or suburban areas, where shortened bankside vegetation may also qualify.	Permanent water or routinely wet for at least 2-3 months during the summer, and where other 'good' habitat is present in immediately adjacent areas with permanent water.
Suitable but poor	Any habitat that falls short of the criteria to qualify as 'good' but does not meet the criteria of 'negligible' could reasonably be considered to be suitable but 'poor'				
Negligible (need to meet vegetation criteria and at least one other)	Shallow profile on both banks	Rocky or gravel	Considerable variation in water level. The bank toe can move by more than 1m horizontally over the breeding season.	None or limited bankside and marginal vegetation due to shading or other 'permanent' factors. (Management can change and is often a 'temporary' factor)	N/A
	Vertical bank face with no burrowing opportunities behind it	Reinforced banks with no gaps	N/A		N/A

3.9 A presence/likely absence survey took place at the same time as the otter survey on 30th May 2024 by experienced ecologists during suitable conditions, in line with the Water Vole Mitigation Handbook (2016). A second survey is scheduled for August 2024.

[5] Dean, M., Strachan, R., Gow, D & Andrews, (2016) The Water Vole Mitigation Handbook. The Mammal Society Guidance Series. The Mammal Society, London.
[6] Dean, M, (2021) Water Vole Field Signs and Habitat Assessment: A Practical Guide to Water vole Surveys, Pelagic Publishing.

3.10 The survey involved searching for evidence of water vole activity within 5m of the banks of the waterbodies and any suitable habitat, including ditches. Examples of evidence include:

- water voles – live sightings
- latrines - distinct piles of water vole droppings found near nest sites, at the ranges of territorial boundaries and where the animals enter and leave the water. The presence of droppings is the only field sign which can be used reliably on its own.
- burrows - burrow entrances are typically wider than high with a diameter between 4 and 8cm. Generally, these burrow entrances are located at the water's edge.
- feeding stations - areas with distinct neat piles of chewed lengths of vegetation along pathways or haul out platforms along the water's edge.
- footprints - identifiable prints in soft margins of the watercourse.
- runways - low tunnels that are pushed through the vegetation and often leading to burrows or feeding stations.
- nest balls – woven vegetation of approximately the size and shape of a rugby ball, usually found within a tuft of vegetation above the water line.

Other Species

3.11 During surveys, any field signs of other pertinent species were recorded particularly brown rat *Rattus norvegicus* or American mink *Neovison vison.* Notable field signs include:

- the presence of live or dead animals
- footprints
- scats
- feeding remains
- burrows

4.0 RESULTS

Desk Study

4.1 Only one record for water vole was returned by SxBRC within 1km of the site dating from 1991. This was approximately 980m north-east.

4.2 No records were returned for otter.

Habitat Suitability

4.3 Two linear waterbodies were present just outside the redline boundary for the Site:

Table 2: Linear waterbody descriptions

Waterbody	Measurements	Description	Condition
Scrase Stream	Width: 2-3m Bank high: 2m Bank slope: Steep (>45°)	The stream flows east along the northwest ownership boundary. The western section has engineered banks comprising timber panels between galvanised posts. The remainder adjacent to the blue line boundary supported steep banks. The water varied in depth and meandered, providing some exposed substrate and slow-flowing areas. The stream was open and not heavily overshaded providing dense bankside vegetation. Species included rosebay willowherb *Chamaenerion angustifolium*, bramble *Rubus fruticosus*, pendulous sedge *Carex pendula*, common figwort *Scrophularia nodosa* and Himalayan balsam *Impatiens glandulifera*.	Poor
Northland Brook	Width: 0.5m Bank high: 1.5m Bank slope: Steep (>45°)	The brook flows north under Scamps Hill Road via a small road bridge, passed the eastern blue line ownership boundary and into Little Walstead Wood. It is sectioned by weirds along its length. The water level was shallow (>40cm). The banks were densely vegetated in the southern section and became sparser further north where it was shaded by woodland. Species included hemlock water dropwort *Oenanthe crocata*, pendulous sedge and common figwort.	Poor

Otter Surveys

4.4 The habitats adjacent to the site have very limited potential to be of value to otters for commuting, resting and foraging, due to the shallow water levels and engineered nature of the waterbodies along part of their lengths.

4.5 The May 2024 survey found no signs of otter.

Water Vole Surveys

4.6 Both the Scrase stream and Northland brook provide some suitable habitat for water vole in the form of slow-flowing water with bankside vegetation and steep earthen banks in places.

4.7 The May 2024 survey found no signs of water vole.

Other Species

4.8 No evidence of other riparian mammals has been identified adjacent to site to date.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 To date, no evidence of otter or water vole have been identified in either the brook/stream surrounding the Site. However, a further survey is scheduled for August 2024 inline with current guidance.

5.2 Scrase Stream and Northland Brook will not be directly impacted by the proposed development since they lie outside the red line boundary. However, care must be taken to prevent negative impacts from post-development drainage, which could affect water quality and the wildlife dependent on these habitats.

Gladman Developments Ltd.

Land off Scamps Hill, Lindfield

APPENDIX M - BIODIVERSITY NET GAIN REPORT

July 2024

FPCR Environment and Design Ltd
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FIGURES

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd for the development proposals of Land off Scamps Hill, Lindfield (Central OS Grid Ref: TQ 35218 24891).

1.2 The redline boundary where the development is proposed, includes soft landscaping, housing, and associated hardstanding and is hereafter referred to as 'the Site'. An area of land under the same ownership (blue line boundary) is included for context, and as some off-site enhancements are proposed to the North of the Site; this area is referred to as the 'ownership boundary'.

Site Location and Context

1.3 The Site is located within the village of Walstead, on the south-eastern fringe of the town of Lindfield and Haywards Heath. Lindfield Rural is a parish located in the central-eastern portion of Mid Sussex District in West Sussex, the parish is mainly rural in nature, comprising several small hamlets such as Walstead and East Mascalls.

1.4 The survey area measured approximately 6.6ha, consisting of one modified grassland compartment, and two species-poor grassland field compartments, separated by mature hedgerows and trees.

1.5 Northlands brook flows northwards along the south-east boundary of the ownership boundary and Scrase stream runs outside the north of the ownership boundary; both lie >10m from the current Site boundary. A small industrial estate and residential houses lie to the north of Scrase stream. Scamps Hill Road defines the southern boundary and Little Walstead Wood (ancient woodland) demarcates the north-eastern boundary. Directly north there are Christmas tree plantations, with large communications masts, and two areas of broadleaved woodland (Little Walstead Wood and Beggars Grove). There is a new residential development immediately south of Scamps Hill, with arable field compartments and woodland blocks beyond this.

Site Proposals

1.6 Proposals are for a residential development of up to 90 dwellings. The site will deliver a residential development with new public open space and equipped play facilities. The current framework plan (FPCR 9432-L-02) illustrates the opportunity for the Survey area to provide biodiversity benefits through the creation of SUD's, wildflower meadows, scrub planting, hedgerow creation, as well as the retention of the intrinsic habitats on site including the mature hedgerows, mature trees, and some of the grassland which will be enhanced by the proposals.

Aims and Objectives

1.7 This Biodiversity Net Gain Report is broadly based on the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance[1]. The scope and objectives of this report are to:

- Summarise the results of the baseline UKHab Survey undertaken on the Site and present the results of habitat condition assessment surveys following the Statutory Biodiversity Metric 4.1 Technical Guidance[2].
- Provide an overview of the proposed habitats following completion of the scheme.

1 CIEEM (2021) Biodiversity Net Gain Report and Audit Templates Chartered institute of Ecology and Environmental Management, Winchester, UK.
2 DEFRA Statutory Biodiversity Metric) Available at: https://assets.publishing.service.gov.uk/media/65673fee750074000d1dee31/The_Statutory_Biodiversity_Metric_-_Draft_User_Guide.pdf

- Present the results of the Statutory Biodiversity Metric 4.1 assessment completed for the proposals.
- Assess the feasibility of the proposals to achieve a net gain in biodiversity through the Statutory Biodiversity Metric 4.1.
- Make recommendations for the proposals to maximise their biodiversity potential.

1.8 This report has been prepared to support the Ecological Impact Assessment (FPCR, July 2024) prepared for the Site, which provides a detailed description of the habitats present.

1.9 A River Conditions Assessment (RCA) was carried out on Scrase Stream by FPCR in October 2023 and full details are provided in *Appendix N*. The stream is off-site, adjacent to the north boundary. The RCA was a high-level assessment, undertaken to gather baseline information, as the drainage scheme for the proposed development is still being refined. The stream was assessed as being in Poor condition. The RCA found a slight negative impact on the Scrase Stream, due to proposed additional bank reinforcement and an outflow connected to the onsite SuDS, but this will not change the condition from Poor.

2.0 LEGISLATIVE AND POLICY CONTEXT

2.1 The UK Government, as signatory to the Rio Convention on Biological Diversity, is committed to conserving and enhancing biodiversity. This commitment is further enforced in the Natural Environment and Rural Communities Act (NERC) 2006 and the Natural Environment White Paper (June 2011).

2.2 DEFRAs 25 Year Environment Plan (2018) seeks to embed a 'net environmental gain' principle for development to deliver environmental improvements locally and nationally. Current policy is that the planning system should provide biodiversity net gains where possible; however, this is moving towards a mandatory requirement.

2.3 The NPPF (2023)[3] seeks to ensure that the planning system contributes to and enhances the natural and local environment, protect, and enhance biodiversity and geodiversity by:

"174. 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;

179. 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."

2.4 The Lindfield & Lindfield Rural Neighbourhood Plan 2014-2031[4] has been guided by some key principles within the NPPF, including minimising the impact on biodiversity, conserving and enhancing the natural environment, conserving the landscape in AONBs, and the designation of Local Green Spaces.

2.5 The Mid-Sussex District Plan 2014-2031 includes the following policies of note:

- Policy DP37: Trees, Woodland and Hedgerows
- Policy DP38: Biodiversity

The Environment Act 2021

2.6 The Environment Act requires all development including land extraction schemes in England to deliver a mandatory 10% biodiversity net gain, to be maintained for 30 years. It should be noted that this has not passed into law. At the time of the writing of this report we are in a transition period, to enable development projects to account for these new requirements. The transition period is expected to end in February 2024, when it will become a legal requirement.

Measurable Net Gain

2.7 Biodiversity Net Gain seeks measurable improvements for biodiversity, by enhancing habitats or creating better ones. Defra's Statutory Biodiversity Metric v4.1 is used to measure changes in biodiversity, by assigning habitats a 'unit value' according to their relative value for biodiversity.

[3] National Planning Policy Framework, Updated September 2023. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

[4] Lindfield & Lindfield Rural Neighbourhood Plan 2014-2031. Available at: https://www.midsussex.gov.uk/media/2825/lindfield-and-lindfield-rural-neighbourhood-plan.pdf

3.0 METHODOLOGY

Baseline Habitat Assessment

3.1 This report accompanies an Ecological Appraisal for the Site which has been undertaken to inform the development proposals and to provide recommendations for mitigation and enhancement (of which measurable biodiversity net gain will form a part).

3.2 A walkover survey of the site was originally carried out in November 2020, and the habitats were classified using the Phase 1 Habitat Survey methodology[5].

3.3 An update survey using UKHab habitat classifications was completed by ecologist James Gretton on 16th October 2023. James has four years' experience in ecological consultancy and is experienced in botanical surveys. The survey broadly followed UKHab Survey technique as recommended by Natural England and the Chartered Institute of Ecology and Environmental Management. Habitat Conditions Assessments in accordance with the Natural England's Statutory Biodiversity Metric (v4.1) Technical Annex 1 were also carried out at the same time.

3.4 A desktop study was undertaken by consulting Sussex Biodiversity Records Centre (SxBRC) (September 2023), and the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

3.5 Full details of the survey methodologies employed during the above surveys are provided in the Ecological Impact Assessment (FPCR, July 2024).

The Statutory Biodiversity Metric (v4.1)

3.6 Natural England's published biodiversity net gain metric 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 habitats, linear features and watercourses separately, and is based on pre-determined values, along with published written guidance, set by a Natural England-led team of experts. The latest version of this metric is the Statutory Biodiversity Metric v4.1, published in November 2023.

3.7 To facilitate this, the Site has been mapped and digitised using QGIS, with the existing habitats identified and areas automatically generated. In accordance with the 4.1 Metric User Guide, habitats have been defined under UK Habitat Classification. The detailed landscaping proposals for the Site were then uploaded into QGIS, and the proposed habitats mapped and digitised to generate areas for each of the habitats proposed for creation.

3.8 These pre- and post-development habitat areas were then inputted into the Statutory Biodiversity Metric Calculation tool. Pre-development habitats were grouped into their habitat type and condition based on the results of the UKHab and condition assessment surveys, while post-developments were classified into their UKHab type as identified through the proposed habitats within the landscaping plans and their target condition. The metric assigns a habitat distinctiveness score for each of the baseline and proposed habitats which are pre-assigned scores based on the habitat type.

[5] JNCC (1990) Handbook for Phase 1 habitat survey – a technique for environmental audit. Peterborough: JNCC

3.9 The strategic significance of the habitats was also assessed for both the pre- and post-development habitats based on the location of the Site, its proximity to existing areas of biodiversity interest and its setting within wider habitat corridors.

3.10 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 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 offsite offsetting solutions.

3.11 Full details of the calculation methodology used is provided in the Statutory Biodiversity Metric (v4.1) – User Guide[6].

Limitations

3.12 Data provided by third party sources collated during the desktop study is generally made up from a wide range of sources including (but not limited to) those submitted by ecological consultancies, wildlife conservation organisations and volunteers. As such, this data is typically focused on areas of known nature conservation, is reliant upon formal surveys having been undertaken within an area or the presence of an expert within the locality (particularly for invertebrate records) and as such this data can never be fully relied upon as a complete ecological dataset for any given area. Rather, this data is used as a guide to likely presence of notable ecological features and can never be relied upon for likely absence.

3.13 The UKHab map has been reproduced from detailed field notes and informed by aerial imagery, OS mapping and site maps provided by the client. The accuracy of this figure is therefore ultimately guided by the accuracy of these sources and can only be relied upon to a certain degree of resolution.

3.14 The UKHab survey and BNG Conditions Assessments were carried out in October 2023, outside of the optimal survey season. The habitat classifications and species present are largely the same as those present in 2020, and the habitat types which represent the majority of the habitats present on the Site including modified grassland, other neutral grassland, and hedgerows are unlikely to show variation in condition between seasons.

6 DEFRA Statutory Biodiversity Metric) Available at: https://assets.publishing.service.gov.uk/media/65673fee750074000d1dee31/The_Statutory_Biodiversity_Metric_-_Draft_User_Guide.pdf

4.0 BASELINE CONDITIONS

Desktop Study

4.1 Ashdown Forest Special Area of Conservation (SAC) and Special Protection Area (SPA) is located approximately 8km north-east of the Site. It is designated as an SAC due to the dry and wet heathland habitats present, and due to the presence of Great Crested Newt (GCN) *Triturus cristatus.* The Site is designated as an SPA due to the presence of breeding nightjar *Caprimulgus europaeus* and Dartford warbler *Sylvia undata*.

4.2 There are two, Mid-Sussex Council-managed Local Nature Reserves (LNR) within 500m of the site and they are linked to the Site by Scrase stream, which runs along the northern boundary.

- Eastern Road LNR lies 62m north of the Site boundary. The site has a mosaic of woodland, scrub, rough grassland and wetland which supports a diverse range of plants, insects and birds. The wetland areas support healthy populations of frogs, newts and aquatic insects.
- Scrase Valley LNR lies 340m southwest of the Site. It comprises 15 acres of woodland, marsh, scrub and flood meadows. The Scrase stream runs through it as does a PRoW linking Lindfield with Haywards Heath. The site is important both as a mosaic of semi-natural habitats in a built-up environment and because the marshy grassland supports several plants which are rare in a County context.

4.3 Costells, Henfield and Nashill Woods Local Wildlife Site (LWS) lies 800m east of the Site boundary. This is an ancient woodland, located to the north of Scaynes Hill. It is a fairly uniform area of overgrown birch coppice with oak standards, some hornbeam, oak and beech, and occasional conifers. There are several ponds and streams.

4.4 Walstead Cemetery LWS 225m from the site boundary, this is a small graveyard which supports short, species-rich grassland. It has clumps of exotic trees and a small garden of rest which is planted up with rose bushes and not included in the Site of Nature Conservation Importance (SNCI) boundary.

4.5 Western Road Cemetery LWS 300m south-west, which consists of two parts. The area to the north is used as a cemetery and is managed by mowing. It supports a variety of habitats, including acid, neutral and marshy grassland and woodland. This diversity is reflected in an impressive species list. The southern part is unmanaged rough grassland, scrub and woodland. The site is surrounded by housing.

Strategic Significance

4.6 The Site does not lie within the Zone of Influence or Buffer Zone of any internationally designated sites (SPA, SAC) or nationally designated sites (SSSI's). It is not expected that the proposals will have any impact on the non-statutory designated sites due to their reasons for notification, and the distances between the sites and the application Site (225m-800m away). This has been further addressed within the Ecological Appraisal (FPCR, February 2024).

4.7 The Site is linked to Eastern Road LNR (62m N) and Scrase Valley LNR (340m SW) by Scrase stream which runs along the north boundary of the Site. Mitigation should be provided to ensure the development does not negatively impact on these statutory designated sites.

4.8 An area of ancient woodland (Little Walstead Wood) lies adjacent to the north-east boundary of the Site.

Biodiversity Units

Habitats

4.9 The survey area comprised a compartment supporting modified grassland and two further fields supporting neutral grassland, with some areas of blackthorn scrub and bramble scrub. Native hedgerows were present within the Site and around the Site boundaries, and a line of trees was present along the south-east boundary. Scattered trees were present throughout the Site, notably along the south boundary and in the centre of the Site where an area of scrub is also present. Hedgerows are being retained wherever possible across the Site, and all the trees present within the Site will be retained as part of the proposals.

4.10 Some habitats within the ownership boundary were surveyed and are targeted for off-site habitat enhancement. These habitats comprised part of field parcels G1 and G3, which comprised modified grassland and other neutral grassland respectively. A treeline was also present along the north boundary, along Scrase stream, and an area of blackthorn scrub and bramble was present in the off-site habitats in G3 also.

4.11 A summary of the baseline habitats is provided in *Table 1* below and an illustration is provided in *Figure 1*.

4.12 The biodiversity units for each habitat on the Site have been calculated and the cumulative units are presented in *Table 1*. A brief description of the habitats and their baseline conditions are also detailed below. Full survey results and condition assessment scores are provided in *Appendix A*.

Table 1: Summary of On-Site Baseline Habitats

Habitat	Description	Area (ha)	Condition	Distinctiveness	Biodiversity Units
Modified grassland	Grassland G1 to the south of the Site was dominated by cock's foot *Dactylis glomerata* and Yorkshire fog *Holcus lanatus,* with abundant red fescue *Festuca rubra* and occasional false oat grass *Arrhenatherum elatius*. Forbs present included abundant common sorrel *Rumex acetosa*, white clover *Trifolium repens* and creeping thistle *Cirsium arvense*, frequent creeping buttercup *Ranunculus repens*, and occasional bracken *Pteridium aquilinum*, common nettle *Urtica dioica* and bird's foot trefoil *Lotus corniculatus,* and some soft rush *Juncus effusus* and common chickweed *Stellaria media* present. The grassland showed signs of regular management, and due to the low number of forbs recorded, and dominance of palatable grasses G1 was classified as modified grassland. G1 was assessed as being in Poor condition, due to being species-poor, having a uniform short sward, and having <1% bare ground.	3.0952	Poor	Low	6.19
Other neutral grassland	Grassland G2 had a similar species composition to G1, however it was more tussocky, and in addition to the species recorded in G1 (and minus white clover) abundant smooth meadow grass *Poa pratensis*, lesser knapweed *Centaurea nigra*, frequent ribwort plantain *Plantago lanceolata* and occasional common ragwort *Jacobaea vulgaris* and rough meadow grass *Poa trivalis* were noted. Soft rush was also frequently recorded in this area. Therefore, G2 was classified as being a species-poor example of other neutral grassland. Grassland G3 had a similar composition to that of G2, however this unmanaged grassland most resembled g3c8 Holcus-Juncus other neutral grassland in character, although the vegetation composition wasn't consistent enough to classify it. Some scattered blackthorn *Prunus spinosa* scrub was present within the grassland, encroaching from the hedgerows, especially H1. There were large areas of tall forbs within G3 which were dominated by soft rush and creeping thistle, indicating that this area of grassland is enriched, and is sometimes inundated, possibly by the Scrase stream. Other tall forbs included nettles, common hogweed *Heracleum sphondylium*, spear thistle *Cirsium vulgare*, and willowherb *Epilobium spp*. These areas were not mapped separately as the wider grassland community was still strong within the areas of tall forbs. Himalayan balsam *Impatiens glandulifera* was recorded in the north of G3 where the grassland backs onto Scrase stream. G2 and G3 were assessed as being in Poor condition, as neither grassland had indicators immediately obvious within the grasslands. There was also a lack of bare ground within the grasslands, and the cover of species indicating sub-optimal condition, including creeping thistle and nettle was >5%. The grasslands were species poor, with <10 species present per m^2.	3.4502	Poor	Medium	13.80
Bramble scrub	One area of bramble scrub were recorded within the Site. BS1 in the centre of the Site was dominated by bramble *Rubus fruticosus* with one oak *Quercus spp* and one blackthorn bush also present. BS2 was recorded along the north boundary of the Site, along Scrase stream. BS2 was dominated by bramble and Himalayan balsam, with abundant creeping thistle. Bramble scrub does not require a conditions assessment, as it can never meet more than Poor condition within the Metric.	0.0344	N/A	Medium	0.14

Habitat	Description	Area (ha)	Condition	Distinctiveness	Biodiversity Units
Individual trees	There were 28 individual trees recorded within the Site. These trees comprised mature and semi-mature oak trees, mature red oak *Quercus rubra,* semi-mature ash *Fraxinus excelsior,* common lime *Tilia eurpoaea* and semi-mature horse chestnut *Aesculus hippocastanum*. The majority of the trees were medium sized trees (T2-T12, T16-T24, T26) and large trees (T13-T15, T25, T27-T28, T30). Due to the size and condition of these trees and their intrinsic value it is important that they are being retained by the proposals from an ecological perspective. A lot of these trees were noted to possess some potential for roosting bats. Trees T2 – T11 were classified as being medium sized trees in Moderate condition. These trees were mainly horse chestnut trees, with one ash and one oak. T13 was a medium sized tree in Good condition and T13-15 were medium and large trees in Good condition; these trees were all mature oaks. T16 was a mature red oak tree in moderate condition. T17 and T18 were both mature oak trees in Good condition. T19 – T25 comprised medium-sized small lime trees in Moderate condition. T25 – T30 were all large, mature oak trees, in Good condition. The trees assessed as being in Moderate condition were non-native species, lacked features for wildlife, were not considered mature for their species though still meeting the size requirements for medium sized trees, and/or showed signs of being impacted by anthropogenic activities. The trees assessed as being in Good condition were native species, and generally possessed niches for wildlife, were mature trees, did not show any negative signs from human activity, over-sailed vegetation. Some of these trees did show signs of management/impacts from human activity but passed all other criteria.	0.6229	Moderate	Medium	4.98
		0.7184	Good	Medium	8.62
Total On-Site Baseline Habitat Units					**33.73**

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

Table 2: Summary of Off-Site Baseline Habitats

Habitat	Description	Area (ha)	Condition	Distinctiveness	Biodiversity Units
Modified grassland	A small area of the grassland G1, as described above, is excluded from the development boundary. This habitat will be retained by the proposals.	0.1609	Poor	Low	6.51
Other neutral grassland	A large proportion of Grassland G3 as described above was excluded from the development boundary. This area is prone to flooding, from the Scrase stream, which flows along the northern boundary of the grassland G3. This grassland will be enhanced by the proposals.	0.5518	Poor	Medium	0.32
Blackthorn scrub	An area of blackthorn scrub (B) was recorded within G3. No other plant species were identified within the area of scrub. The scrub was in Poor condition due to being 100% blackthorn, not	0.0248	Poor	Medium	0.10

Habitat	Description	Area (ha)	Condition	Distinctiveness	Biodiversity Units
	possessing a good age range, not having a developed edge, and there not being any clearings or rides within the scrub. The scrub will be retained by the proposals.				
Rural tree	One tree was recorded within the off-site habitats, to the north-west of the Site. T29, a medium sized oak tree in Good condition. The tree was assessed as being in Good condition as it was a native species, and possessed niches for wildlife. The tree is a mature oak and does not show any negative signs from human activity. The tree canopy also over-sails grassland. The tree will be retained by the proposals.	0.0163	Good	Medium	0.20
Bramble scrub	BS2 was recorded along the north boundary of the Site, along Scrase stream. BS2 was dominated by bramble and Himalayan balsam, with abundant creeping thistle. The scrub will be retained by the proposals. Bramble scrub does not require a conditions assessment, as it can never meet more than Poor condition within the Metric.	0.0181	N/A	Medium	0.07
Total Off-Site Baseline Habitat Units					**2.90**

Linear Features

4.13 There were four hedgerows bounding the field compartments within the survey area. All the hedgerows supported a variety of native species, including mature and semi-mature trees frequently recorded throughout.

4.14 There were also lines of trees present along the south-east and south boundaries of the Site.

4.15 One line of trees was present in the off-site habitats, along Scrase stream.

Table 3: Existing On-Site Hedgerows Biodiversity Units

Habitat	Description	Ref (Figures)	Length (km)	Condition	Biodiversity Units
Hedgerows	All hedgerows were Habitats of Principal Importance (NERC S41), but none were 'important' under the Hedgerow Regulations 1997. H1 and H4 were native hedgerows with trees: H1 was dominated by hazel *Corylus avellana,* with abundant hawthorn *Crataegus monogyna,* frequent bramble and blackthorn, and some ash. H4 was dominated by holly and oak, with abundant bramble, blackthorn, hawthorn, and some hazel, ash and wild cherry. Part of H4 extends outside of the Site boundary and is classed as an off-site habitat. H2 and H3 were native hedgerows: H2 was dominated by hazel, with frequent holly *Ilex aquifolium*, bramble and bracken. H3 was dominated by blackthorn, with abundant hawthorn and bramble, and infrequent hazel. The hedgerows were all in Moderate condition. There was a lack of vegetated surface to the side of the hedgerows, plants indicative of enrichment covered >20% of the ground around the base of the hedgerows, and >90% of the hedgerow length was not free of damage caused by human activities.	H1 H2 H3 H4	0.211 0.236 0.061 0.123	Moderate Moderate Moderate Moderate	1.69 0.94 0.24 0.98
Lines of Trees	Two lines of trees were present: TL1 was dominated by common lime, with some horse chestnut and ash trees. TL2 comprised oak and ash trees. The tree lines were in Poor and Moderate condition, due to having gaps within the canopy, the trees not having ecological niches, and there not being an undisturbed naturally vegetated strip of at least 6m on both sides of the lines of trees.	TL1 TL2	0.09 0.064	Poor Moderate	0.18 0.26

Table 4: Existing Off-Site Hedgerows Biodiversity Units

Habitat	Description	Ref (Figures)	Length (km)	Condition	Biodiversity Units
Hedgerows	Part of H4 extended outside of the Site boundary, and it therefore classed as an off-site hedgerow. H4 was classified as a native hedgerow with trees. It was dominated by holly and oak, with abundant bramble, blackthorn, hawthorn, and some hazel, ash and wild cherry. The hedgerow in Moderate condition, as outlined in Table 3 above.	H4	0.021	Moderate	0.17
Lines of Trees	One line of trees was present in the off-site habitats, along Scrase stream. TL3 was dominated by hazel, with abundant hawthorn, frequent ash, and some field maple trees. Bramble was frequently recorded throughout the understory. The tree line was in Poor due to having gaps within the canopy, the trees not having ecological niches, and there was not being an undisturbed naturally vegetated strip of at least 6m on both sides of the lines of trees.	TL3	0.199	Poor	0.40

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

5.0 PROPOSED DESIGN

5.1 The proposed habitats are shown in *Figure 2,* with habitat retention illustrated in *Figure 3;* based on the Illustrative Framework Plan by FPCR Environment and Design Ltd (Drawing Number 9432-L-02). A summary of the proposed habitats and proposed hedgerow creation and enhancement is provided in *Table 5 – Table 8*.

5.2 A brief outline of the management required to achieve the target condition for each habitat type is given, however a Habitat Management and Monitoring Plan (HMMP) should be produced, which will outline the planting and landscape information, and the management and monitoring of the proposed and enhanced habitats for a minimum of 30 years in accordance with the Environment Act. This can be submitted as part of a planning condition, to be submitted and discharged prior to the commencement of works.

Habitats

Habitat Retention/Loss (*Figure 3*)

5.3 Most of the neutral grassland within the Site in field compartments G2 and G3 will be lost to allow for the development proposals. This will be compensated for through habitat creation, including more species rich grasslands in better condition and enhancement of retained grasslands to other neutral grassland. Some off-site enhancement will also be undertaken, especially in reference to grassland G3.

5.4 The mature broadleaved trees throughout the Site will be retained by the proposals. Most of the hedgerows will be retained, with small openings created to allow for access points and roads. The hedgerows and mature trees which are retained will be adequately buffered according to the root protection areas (RPA) (FPCR, Tree Schedule and Tree Survey Plan, December 2023).

5.5 The following buffers will be implemented during construction to ensure protection and ongoing ecological use of these habitat features across the Site:

- Scrase stream – 10m buffer
- Little Walstead Wood (ancient woodland) - 15m

Habitat Creation / Enhancement (*Figure 2*)

5.6 The modified grassland in the south of the Site (G1) will be retained and enhanced to other neutral grassland in Moderate condition. The off-site area of G1 will be retained as modified grassland in Poor condition.

5.7 Margins of existing other neutral grassland (Poor condition) around the development area, including around hedgerows and trees which will be retained are marked as being lost by the proposals. This is due to the areas to be retained being too small to sustain a sward indicative of 'other neutral grassland'. These areas are therefore proposed to be modified grassland in Poor or Moderate condition, depending on the size of the areas and probability of achieving 6-8 species per m^2.

5.8 The area of other neutral grassland within the LEAP in the north-east will be lost and will be reseeded with a species-rich mix; this area will target Poor condition.

5.9 Mixed scrub will be created around the north, north-east and eastern boundaries of the Site; and area of blackthorn scrub will also be enhanced to mixed scrub in Moderate condition.

5.10 A SuDS will be created in the northern-most corner of the Site. The SuDS targets moderate condition; it will need to be planted with a diversity of marginal vegetation to achieve this condition.

5.11 The proposals include the planting of an additional 53 small trees across the Site. The trees will mainly be comprised of native species and will be planted around the developed area and within the grassland to the south, and along the boundaries. Twenty-two of these trees will be fruiting trees, which will be planted in the north-east corner of the Site and will create a community orchard.

5.12 The Scrase stream, adjacent to the north of the Site boundary, will be retained by the proposals. It is recommended that a 10m buffer is implemented; the Site boundary is more than 10m from the Stream, and no construction is proposed within the off-site habitats in the north of the Site. The grasslands in this area are to be enhanced from Poor condition to Moderate condition through off-site habitat enhancement.

5.13 The bramble scrub, blackthorn scrub and treeline TL3 in the off-site area to the north of the Site will be retained by the proposals.

5.14 All works around invasive non-native species such as Himalayan balsam should be carried out under a Biodiversity Method Statement to ensure the species is not spread within the Site or into the wider environment. This is especially important in the north of the Site, where Himalayan balsam was noted growing along the Scrase stream and encroaching on the grassland G3. Himalayan balsam is classed as 'controlled waste' and can only be disposed of in a registered

landfill site, unless appropriate on-site treatment and disposal is undertaken. The Water Resources Act 1991 requires care to be taken when spraying or treating such species in the presence of a watercourse.

Hedgerows

Hedgerow Retention (Figure 3)

5.15 Most hedgerows will be retained across the Site. Two gaps will need to be created within H2 and H1 to allow for access roads.

Hedgerow Creation (Figure 2)

5.16 To compensate for the loss of hedgerows on-site, 149m of species-rich hedgerows are proposed between the build development and the green space to the south of the site. This will create linkages between the existing trees and scrub in the centre of the Site and existing hedgerows and the proposed areas of scrub to the north and north-east.

Table 5: Summary of Proposed Habitat Creation

Habitat (UKHab Type)	Targets for Creation/Management	Area (ha)	Target Condition	Distinctiveness	Proposed Biodiversity Units
Modified grassland	Areas of modified grassland will be created around the development area, including the LEAP and in areas where hedgerows and trees are being retained, but it is unlikely the existing other neutral grassland in these areas will persist as the retained areas are small. To achieve the target Moderate condition, the grasslands must contain 6-8 species per m^2, including 2 forbs, and in addition must pass at least three of the following criteria; 1) the grassland will need to have a varied sward height, 2) scattered scrub must account for <20% of the grassland area 3) signs of physical damage must be <5%, 4) cover of bare ground must be between 1 and 10%, 5) cover of bracken must be <20%, 6) invasive non-native species listed on Schedule 9 of WCA 1981 must be absent. This will be achieved by over-seeding with a species-rich mix suitable for managed areas such as lawns, management through cut-and-collect mowing to ensure nutrients are removed from the grassland, and light management of some of the grassland margins (at least 20% of the grassland area) to allow a diverse sward height. Grassland diversity should be monitored to ensure uptake of species is successful, and additional seeding and/or harrowing undertaken if necessary. The presence of bracken, scrub and invasive species such as Himalayan balsam within the grassland must be monitored, and these must be removed where observed.	0.6477	Moderate	Low	2.25
	Some smaller areas of grassland will be retained around hedgerows and trees in the residential area to the north of the Site. Due to their small size, they will not be able to be retained as other neutral grassland and are therefore proposed to be Modified grassland. These areas have a target Poor condition due to their small size making it unlikely that they will be able to achieve 6-8 species per m2. These small areas of grassland will also be over-seeded with a species-rich mix suitable for managed areas such as lawns and management through cut-and-collect mowing to ensure nutrients are removed from the grassland. The presence of bracken, scrub and invasive species such as Himalayan balsam within the grassland should be monitored, and they must be removed where observed.	0.081	Poor	Low	0.16

Habitat (UKHab Type)	Targets for Creation/Management	Area (ha)	Target Condition	Distinctiveness	Proposed Biodiversity Units
Other neutral grassland	A small area of other neutral grassland will be created in the south of the Site by the proposals. This will be linked to wider areas of other neutral grassland which are being enhanced from modified grassland within this area. These grasslands will be seeded with an appropriate species-rich seed mix, for example EM2 Standard General Purpose Meadow Mix from Emorsgate Seeds, or seeded through the introduction of green hay from an appropriate local donor site. To achieve the target Moderate condition, the grasslands must freely exhibit indicator species for the grassland type, and will need to pass at least two of the following criteria; 1) the grassland will need to have a varied sward height, 2) cover of bare ground must be <5%, 3) cover of bracken must be <5%, 4), combined cover of species indicative of sub-optimal condition and signs of physical damage must be <5%. This will be achieved by over-seeding with a species-rich mix and cut-and-collect mowing or lightly grazing the grasslands to achieve a diverse sward height and ensure nutrients are removed from the grassland. The margins should be lightly managed to create a diverse sward height. The presence of scrub encroachment should be monitored. Grassland diversity should be monitored to ensure uptake of species is successful, and additional seeding and/or harrowing undertaken if necessary.	0.0307	Moderate	Medium	0.21
Mixed scrub	An area of mixed scrub will be created along the east, north-east and north boundaries of the Site. The created scrub should comprise native woody species including hawthorn, holly, hazel, blackthorn, common dogwood Cornus sanguinea, goat willow Salix caprea and mountain ash Sorbus aucuparia. For the scrub to meet the targeted Moderate condition, the planting will need to ensure that no one species dominates more than 75% of the areas and it will be subject to a program of management to encourage natural regeneration. Monitoring will ensure no non-native invasive species establish.	0.4529	Moderate	Medium	3.03
SuDS	A Sustainable urban Drainage System will be created in the northern corner of the Site. The SuDS is expected to dry out seasonally, and not hold water all year round. The SuDS should be planted with a range of native marginal and aquatic plant species suited to areas which are seasonally wet, including irises and rushes. The SuDS must be monitored and managed to stop the spread of Himalayan balsam, as this invasive species has been recorded in the north of the Site. To achieve the target Moderate condition the SuDS will need to pass 3 or 4 criteria, including; having a varied vegetation structure, containing different plant species beneficial to wildlife, having <5% cover	0.1503	Moderate	Medium	0.36

Habitat (UKHab Type)	Targets for Creation/Management	Area (ha)	Target Condition	Distinctiveness	Proposed Biodiversity Units
	of invasive non-native species, plant species comprising mainly native species, and the vegetation present being suited to a wetland situation.				
Urban trees (small)	The proposals include the planting of an additional 53 small trees across the Site. The trees will mainly be comprised of native species and will be planted around the developed area and within the grassland to the south, and along the boundaries. Twenty-two of these trees will be fruiting trees, which will be planted in the north-east corner of the Site and will create a community orchard. Due to the time required for trees to reach 'Good' condition (30 years), the trees will target 'Moderate' condition. The trees will be subject to a program of management to ensure they maintain healthy growth. Urban trees will be monitored, and any individual failures will be replaced on a like for like basis.	0.2158	Moderate	Medium	0.66

Table 6: Summary of Proposed On-Site Habitat Enhancement

Baseline Habitat (UKHab Type) Change	Targets for Enhancement/Management	Length (km)	Habitat Condition Change	Distinctiveness change	Biodiversity Units
Modified grassland to Other neutral grassland	A large area of other neutral grassland will be created by the proposals in the south of the Site, by enhancing the retained modified grassland in Poor condition to other neutral grassland in Moderate condition. The grassland will be seeded with an appropriate species-rich seed mix, for example EM2 Standard General Purpose Meadow Mix from Emorsgate Seeds, or seeded through the introduction of green hay from an appropriate local donor site. Any proposed over-seeding of the grassland should include yellow rattle Rhinanthus minor, which is a semi-parasitic plant which helps to control the dominance of palatable grasses including perennial rye grass, improving the sward diversity. Due to the management history of the Site and possible inundation from the Scrase stream, and from grazing by livestock, it is expected that the soil may be nutrient enriched, and therefore further management may be required to suppress outbreaks of undesirable species including creeping thistle, nettle and broad-leaved dock. Monitoring and additional management will be required to suppress outbreaks of undesirable species across the sward. To achieve the target moderate condition, the grasslands will need to meet the same criteria as the created other neutral grasslands above and be managed using the same methods.	2.6532	Poor - Moderate	Low – Medium	16.45

Baseline Habitat (UKHab Type) Change	Targets for Enhancement/Management	Length (km)	Habitat Condition Change	Distinctiveness change	Biodiversity Units
Other neutral grassland	A small area of existing other neutral grassland within the north-west of G3 which falls within the Site boundary will be enhanced from Poor condition to Moderate condition, forming a large block of better-quality neutral grassland, with the off-site grasslands. Due to the flood risk in this area of the Site it is expected that the soil may be nutrient enriched, and therefore further management may be required to suppress outbreaks of undesirable species including creeping thistle, nettle and broad-leaved dock. Monitoring and additional management will be required to suppress outbreaks of undesirable species across the sward. A species-mix suited to floodplain conditions should be selected for over-seeding the grasslands in the north of the Site, such as EM8 Meadow Mixture for Wetlands from Emorsgate Seeds. To achieve the target moderate condition, the grasslands will need to meet the same criteria as the created other neutral grasslands above and be managed using the same methods.	0.0054	Poor - Moderate	Medium – Medium	0.04

Table 7: Summary of Proposed Off-Site Habitat Enhancement

Baseline Habitat (UKHab Type) Change	Targets for Enhancement/Management	Length (km)	Habitat Condition Change	Distinctiveness change	Biodiversity Units
Other neutral grassland	The grassland G3 which falls outside of the Site boundary, but is still within the ownership boundary, will be managed and enhanced as an off-site habitat from Poor condition to Moderate condition. Due to the flood risk in this area of the Site it is expected that the soil may be nutrient enriched, and therefore further management may be required to suppress outbreaks of undesirable species including creeping thistle, nettle and broad-leaved dock. Monitoring and additional management will be required to suppress outbreaks of undesirable species across the sward. A species-mix suited to floodplain conditions should be selected for over-seeding the grasslands in the north of the Site, such as EM8 Meadow Mixture for Wetlands from Emorsgate Seeds. To achieve the target moderate condition, the grasslands will need to meet the same criteria as the created other neutral grasslands above and be managed using the same methods.	0.5518	Poor - Moderate	Medium – Medium	3.75

Table 8: Summary of Proposed Hedgerow Creation

Habitat (UKHab Type)	Targets for Creation/Management	Length (km)	Target Condition	Distinctiveness	Biodiversity Units
Native species-rich hedgerow	149m of species-rich hedgerow with trees will be planted between the build development and the green space to the south of the site. This will link the current trees and scrub within the centre of the Site to existing hedgerows and the proposed areas of scrub to the north and north-east. The hedgerows will be comprised of native species to provide shelter, pollen, nectar and berries for local wildlife. The hedgerow will target Moderate condition. To achieve this, the following management measures need to be implemented, which will allow the criteria within Appendix B to be achieved; Failed specimens will be replaced during establishment on a like-for-like basis; Hedgerows will be managed to encourage tall (>1.5m), wide (>1.5m) and bushy features; Fertiliser and herbicide use will be prohibited around the hedgerows to reduce nutrient enrichment; A minimum of 2m adjacent to the hedgerows will be managed as 'undisturbed' ground wherever possible.	0.149	Moderate	Medium	1.00

6.0 STATUTORY BNG METRIC

6.1 The habitat retention, enhancement and creation proposals highlighted within this report have all been inputted into the Statutory Biodiversity Metric v4.1. *Table 9* provides a summary of the headline results of the assessment completed for the proposals. The full metric has been provided in *Appendix C*.

Table 9: Statutory Biodiversity Metric 4.1 Headline Results

On-Site		
Baseline	Habitat Units	33.73
	Hedgerow Units	4.30
	Watercourse Units	0.00
Post-Intervention	Habitat Units	36.76
	Hedgerow Units	5.12
	Watercourse Units	0.00
Off-Site		
Baseline	Habitat Units	2.90
	Hedgerow Units	0.57
	Watercourse Units	1.32
Post-Intervention	Habitat Units	4.44
	Hedgerow Units	0.57
	Watercourse Units	1.32
Total Net Unit Change	Habitat Units	**+4.57**
	Hedgerow Units	**+0.83**
	Watercourse Units	**0.00**
Total Net Percentage Change	Habitat Units	**+13.55%**
	Hedgerow Units	**+19.22%**
	Watercourse Units	**0.00%**

Habitat Trading

Trading Summary

6.2 The vast majority of habitat to be lost across the Site comprised other neutral grassland which is a medium distinctiveness habitat. The existing neutral grassland on the Site is in Poor condition and is not a good representation of this habitat type, with indicator species not readily observed, and with a low number of forbs per m^2. The modified grasslands to be created on site in their place will mostly (excluding some small area margins) target 6-8 species per m^2 and will be managed to target at least Moderate condition. Where other neutral grassland is targeted (in existing areas of modified grassland) these will target Moderate condition, which will off-set for the loss of these Poor condition grasslands. The trees across the Site will be retained by the proposals, with additional tree planting proposed, which will target small trees in Moderate condition. The proposals provide sufficient amounts of on-site and off-site (within the ownership of the client) habitat creation and enhancement to offset impacts to medium distinctiveness habitats through habitat creation and enhancement.

6.3 Low distinctiveness habitats which will be lost as part of the proposals include modified grassland in Poor condition. The majority of the existing modified grassland will be enhanced to other neutral grassland in Moderate condition, and areas of mixed scrub in Moderate condition will also be created in its place along the Site boundaries. The proposals provide sufficient amounts of habitat creation to offset impacts to low distinctiveness habitats through habitat creation.

6.4 Small sections of a native hedgerow with trees H1 (10m) and a native hedgerow H2 (20m) will be lost as part of the proposals to allow access roads to be created. The proposals include the planting of 149m of species-rich native hedgerow, which will compensate for the loss of hedgerows on-site. The proposals provide sufficient hedgerow creation to offset impacts through hedgerow creation measures alone.

6.5 *Table 10* summarises the habitat trading summaries across the Site.

Table 10: Habitat Trading Summary

Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Bespoke compensation likely to be required	N/A
High	Same habitat required	N/A
Medium	Same broad habitat or a higher distinctiveness habitat required	Yes
Low	Same distinctiveness or better habitat required	Yes

Additional Faunal Enhancements

6.6 The Ecological Appraisal (FPCR, February 2024) also recommends that nest boxes for birds and roost boxes for bats are incorporated in the scheme. The Habitat Management and Monitoring Pan which may be conditioned as part of this application may also include the final Ecological Mitigation and Enhancement Plan that shows the location of wildlife boxes and other proposed features.

7.0 CONCLUSION

7.1 The approach to habitat creation and enhancement has aimed to maximise the future biodiversity value on the Site through the creation of species-rich modified and other neutral grasslands, areas of mixed scrub, SuDS, and the planting of additional tree and hedgerows. Faunal enhancements will also be integrated to the proposals to support the restoration of the Site for wildlife. A considered planting scheme will be produced in close communication with an ecologist, which has been the approach to the proposal from the outset.

7.2 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.

7.3 The results of the assessment demonstrate that the proposal will lead to an overall gain of 4.57 biodiversity habitat units, and an increase of 13.55% and 0.83 hedgerow units, an increase of 19.22%.

7.4 The Scrase stream, which is off-site adjacent to the north boundary, was assessed under the River Conditions Assessment and found to be in Poor condition. The stream will be retained by the proposals, and is over 10m from the current Site boundary, although an outflow may be created from the SuDS which will drain into the stream. The grassland habitats along the stream will be enhanced through off-site management, from Poor to Moderate condition other neutral grasslands. No enhancements have been recommended for the stream at this point as the stream is outside of the clients' ownership. The proposals currently have a neutral effect on watercourse units. No ditches or other watercourses have been proposed as part of the current framework plan.

7.5 The proposals have demonstrated the ability for the Site to lead to the delivery of a net gain for habitats and hedgerows in line with the NPPF's policies on "2. Sustainable Development" and "Conserving and enhancing the natural environment".

Key

- Redline Boundary
- Blueline Ownership Boundary

Baseline Habitats

- Blackthorn scrub
- Bramble scrub
- Modified grassland
- Other neutral grassland

Baseline Hedgerows

- Line of trees
- Native hedgerow
- Native hedgerow with trees

Baseline Watercourses

- Other rivers and streams

Baseline Trees

- Existing Large Urban Tree
- Existing Medium Urban Tree

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client
Gladman Developments Ltd.

project
Land off Scamps Hill, Lindfield

drawing title
BASELINE HABITATS

scale @ A3
1:1,600

drawn
DS / AU / CHK

issue date
23/1/2024

drawing / figure number
Figure 1
Rev A

Key

- Redline Boundary
- Blueline Ownership Boundary

Proposed & Retained Habitats

- Blackthorn scrub
- Bramble scrub
- Developed land; sealed surface
- Mixed scrub
- Modified grassland
- Other neutral grassland
- Sustainable drainage system

Proposed & Retained Hedgerows

- Line of trees
- Native hedgerow
- Native hedgerow with trees
- Species-rich native hedgerow

Retained Watercourses

- Other rivers and streams

Proposed & Retained Trees

- Proposed Large Urban Tree
- Proposed Large Rural Tree
- Proposed Medium Urban Tree
- Proposed Medium Rural Tree
- Proposed Small Rural Tree

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drawing title
PROPOSED HABITATS

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issue date
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Figure 2 Rev A

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Key

- Redline Boundary
- Blueline Ownership Boundary

Habitat Retention

- Enhanced
- Retained
- Lost

Hedgerow Retention

- Retained
- Lost

Watercourse Retention

- Retained

Individual Tree Retention

- Created
- Retained

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drawing title
HABITAT RETENTION

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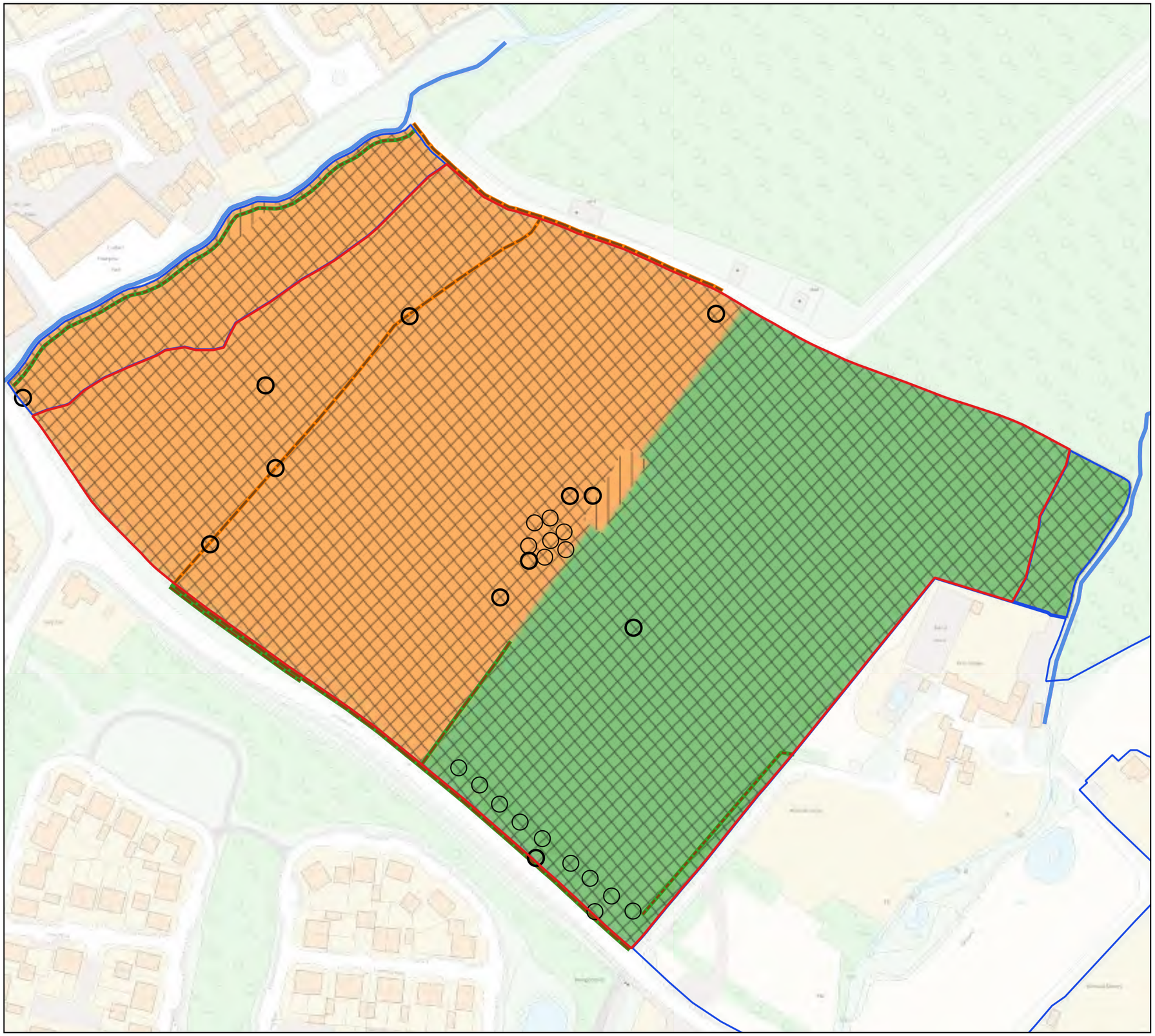
issue date
24/1/2024

drawing / figure number
Figure 3
Rev A



Key

Redline Boundary

Blueline Ownership Boundary

Baseline Habitat Condition

Poor

Condition Assessment N/A

Baseline Habiutat Distinctiveness

Medium

Low

Baseline Hedgerow Condition

Moderate

Poor

Baseline Hedgerow Distinctiveness

Medium

Low

Baseline Watercourse Condition

Poor

Baseline Watercourse Distinctiveness

High

Baseline Individual Tree Condition

Moderate

Good

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drawing title
BASELINE HABITAT CONDITION / DISTINCTIVENESS

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drawn
DS / AU

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drawing / figure number
Figure 4
Rev A

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Key

Redline Boundary

Blueline Ownership Boundary

Proposed & Retained Habitat Condition

Moderate

Poor

N/A - Other

Condition Assessment N/A

Proposed Habitat Distinctiveness

Medium

Low

V.Low

Proposed & Retained Hedgerow Condition

Moderate

Poor

Proposed & Retained Hedgerow Distinctiveness

Medium

Low

Proposed & Retained Individual Tree Condition

Moderate

Good

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project
Land off Scamps Hill, Lindfield

drawing title
PROPOSED HABITAT CONDTION / DISTINCTIVENESS

N

scale @ A3
1:1,600

drawn
DS / AU / CHK

issue date
24/1/2024

drawing / figure number
Figure 5
Rev A

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Land off Scamps Hill, Lindfield

Appendix N - River Condition Assessment Report

July 2024

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	SG / 26.01.2024	Oli G / 26.01.2024
A	Final	SG NK / 17.07.2024	AU / 18.07.24

1.0 INTRODUCTION

1.1 This technical report has been produced as an appendix to the Ecological Impact Assessment (FPCR, July 2024) and should be read in conjunction with the Biodiversity Net Gain Report (FPCR, July 2024) for the site at Land off Scamps Hill, Lindfield.

2.0 METHODOLOGY

2.1 The River Condition Assessment (RCA) was completed by Sylvain Gilbert, Ecologist, experienced and accredited in conducting Modular River Physical Survey (MoRPh[1]).

2.2 A single offsite watercourse was surveyed which is known as the Scrase stream. It is a tributary of the River Ouse, it rises at Cuckfield, flows along Lindfield to the south and east, through Scrase Valley Nature Reserve and then flows into the River Ouse near East Mascalls (coordinates: 51.003429, -0.042988). It is mostly a rural catchment consisting of a mixture of agricultural and horticultural land. The river ran along the northern ownership boundary, approximately 30m from the Site boundary.

2.3 The field survey was undertaken on 25th October 2023, during low/normal flow conditions with weather conditions being cloudy with sunny intervals throughout the survey, with no rain and light breeze wind.

2.4 The Scrase Stream measured approx. 2m wide and a single sub-reach was surveyed, titled SR1 which comprised five 10m module (MoRPh5) in accordance with MoRPh survey methodology. The locations of the five modules are shown in *Figure 1*.

2.5 The assessment was used to inform a Natural England Biodiversity Metric (statutory v4.1) calculation, with the survey data used to generate the watercourse condition scores, that run along Habitats and Linear features.

Limitations and Assumptions

2.6 The MorPh5 surveys require modules to be surveyed contiguously and therefore only captures a proportion of the works extent within the red line boundary. The survey area was chosen as it captures a proportionate representation of the different options being considered and typical habitats currently present.

2.7 During the survey, Himalayan balsam *(Impatiens glandulifera)* was observed along both banks. The left bank appears to be more affected, with a sparse presence on the face and top of the bank. This suggests that this Non-native Invasive Species (NNIS) is present both upstream and downstream of the site. Construction works around this species should be carried out methodically to avoid an offence which relates to the spread of this species to surrounding areas.

[1] https://cartographer.io/

3.0 RESULTS

3.1 The Scrase stream is a straight-sinuous stream with the average bed material being silt and is therefore of river type K. It has a sinuosity index of 1.31, indicating it is almost entirely straight, with few meanders.

3.2 *Table 1* below provides the conditions class / scores for the sub-reach. The statutory Biodiversity Net Gain (BNG) metric (v4.1) used for this scheme requires a river to be marked down based on the river shape index.

Table 1. Final Condition class / scores Pre-Project and Scenario Post Project- River Beult

River Beult	Preliminary Condition Score	Condition Class / Score (prior to overdeepness assessment)	River Shape Index	Condition Class / Score following River Shape Index Review[2]
SR1 Pre-project	-0.073	Fairly Poor / 2	0.89	**Poor / 1**
SR1 Scenario Post Project	-0.251	Fairly Poor / 2	0.89	**Poor / 1**

3.3 The Scrase Stream has been recorded in the statutory BNG metric as 'other river and stream' (type K - Straight/sinuous). The 50m length surveyed has been scored as being in poor condition.

3.4 The Preliminary Condition Score is equal to the average of all negative river condition indicator scores + the average of all positive river condition indicator scores. The result of -0.073 shows a negative overall score and indicates a Fairly poor condition of the river.

3.5 The river shape index is at a level where the watercourse is considered likely to be over deep and disconnected from its floodplain, which reduces the Final Condition Score by one class, from **Fairly Poor to Poor condition**.

3.6 The proposals include the creation of a conveyance swale from the SUDS basin proposed, routing down along the northwest Site and ownership boundaries, meeting the stream with an outfall. The design of the swale and the outfall pipe will be further detailed at reserved matters, including calculation of the total depths and discharge level required, as well as the length and height of the bank reinforcement required.

3.7 A few metres of the right bankside will be altered to facilitate the installation of the headwall, which will include sensitive vegetation clearance that will be reinstated following completion of the works. The rest of the area adjacent to the river will be left for wildlife/habitat enhancement which could include restricting public access.

3.8 The part of the stream flowing through the site is linear and compressed between two steep/vertical banks, with the right bank composed mainly of scrub and semi-improved grassland, and the left bank comprising a large amount of urban development and a reinforced bank.

[2] Modular River Survey (2023) Considering Connectivity in River Condition Assessments [Online]. Available from: https://modularriversurvey.org/river-shape [Accessed 30.05.2023]

3.9 *Table 2* below summarises the positive and negative scores which determine the condition score for the sub-reach of the Scrase stream.

Table 2. Positive and Negative Scores Pre-Project / Scenario – Scrase stream

Location	Feature	Code	Scores (Pre-Project)	Scores (Scenario / Post-Project)
Bank top	Vegetation structure	B1	1	1
	Tree feature richness	B2	0	0
	Water-related features	B3	2	2
	NNIPS cover	B4	-2	-2
	Managed ground cover	B5	-4	-4
Bank face	Riparian vegetation structure	C1	1	1
	Tree feature richness	C2	0	0
	Natural bank profile extent	C3	2	2
	Natural bank profile richness	C4	2	3
	Natural bank material richness	C5	1	1
	Bare sediment extent	C6	3	3
	Artificial bank profile extent	C7	0	-1
	Reinforcement extent	C8	-3	-4
	Reinforcement material severity	C9	-2	-3
	NNIPS cover	C10	-3	-3
Channel margin	Aquatic vegetation extent	D1	1	1
	Aquatic morphotype richness	D2	0	0
	Physical feature extent	D3	2	2
	Physical feature richness	D4	1	1
	Artificial features	D5	-1	-1
Channel bed	Aquatic morphotype richness	E1	0	0
	Tree features richness	E2	1	1
	Hydraulic features richness	E3	1	1
	Natural features extent	E4	2	2
	Natural features richness	E5	1	1
	Material richness	E6	1	1
	Siltation	E7	0	0
	Reinforcement extent	E8	0	0
	Reinforcement severity	E9	0	0
	Artificial features severity	E10	0	0
	NNIPS extent	E11	0	0
	Filamentous algae extent	E12	-1	-1
Positive Index Average			**1.16**	**1.21**
Negative Index Average			**-1.23**	**-1.46**
Preliminary Condition Score			**-0.073**	**-0.251**
Condition Score (Adjusted for river shape)			**Poor**	**Poor**
0 to +4 for positive indicators (green) or 0 to - 4 for negative indicators (red)				

3.10 Generally, the watercourse length supports average riparian vegetation structure (Code: C1), natural bank profile extent and richness (C3, C4), some bare sediments on the right bank face (C6), and channel bed features and material richness (E2 to E6). Low-scoring areas comprise the managed ground cover (B5), the presence of NNIPS on both faces and tops of both banks (B4, C10), reinforcement extent on the left bank face (C7 to C10), some artificial features on the channel margin (D5), and the presence of filamentous algae (E12).

3.11 The stretch of river studied has a population of Himalayan balsam, an invasive non-native species, on the faces and tops of both banks.

3.12 The development simulation, referred to here as the post-project scenario, shows that the works will have a small negative impact on module 3, reducing the already negative scores for bank reinforcement from -3 to -4.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 Following the assessment of the 5 Modules, the final score of the scenario (-0.251 poor) is only slightly lower than that of the pre-project score (-0.073 poor) and therefore, the proposed impact from the development is considered to be **negligible**.

4.2 The proposed development will require an outfall pipe from the SuDs basin into the Scrase stream. The location of the reinforcement and an outfall pipe has not yet been determined however, the addition of such a feature will result in a slightly negative impact on the bank face of the stream.

4.3 The creation of a swale could have a slight positive impact, by altering the richness of the natural bank profile and providing a wet grassland habitat. The structure of the vegetation at the top of the bank could also be improved by diversifying it.

4.4 The design of the outfall, wherever possible, will ensure a gentle fall of water into the river with gentle bank slopes. At the junction of the headwall and the watercourse, riprap rockwork cobbles can be implemented to slow down the water before it flows into the stream.

4.5 Sections of the stream are affected by the NNIS Himalayan balsam on the bank top, bank face and channel bed. A robust management plan will need to be implemented to control and prevent the spread of this species along the river and into the Site.

Key

- Redline Boundary
- Blueline Ownership Boundary
- Module locations

Gladman Developments Ltd

Land off Scamp's Hill, Lindfield

River Condition Assessment Plan

Figure 1