



Ecological Impact Assessment (EcIA)

Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

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Basis of Report

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Acronyms and Abbreviations

ACIEEM	Associate member of the Chartered Institute of Ecology and Environmental Management
AWI	Ancient Woodland Inventory
BNG	Biodiversity Net Gain
BPZ	Biodiversity Protection Zone
CEMP	Construction Environmental Management Plan
EcIA	Ecological Impact Assessment
ECOW	Ecological Clerk of Works
EPSLs	European Protected Species Licences
EnvCoW	Environmental Clerk of Works
GCN	Great Crested Newt
GIS	Geographic Information System
GLTA	Ground Level Tree Assessment
HAPs	Habitat Action Plans
HMMP	Habitat Management and Monitoring Plan
INNS	Invasive Non-Native Species
LEMP	Landscape and Ecological Management Plan
LNR	Local Nature Reserve
LWS	Local Wildlife Site
OS	Ordnance Survey
pLWS	Proposed Local Wildlife Site
PRF	Potential Roost Feature
pSNCI	Potential Site of Nature Conservation Importance
MAGIC	Multi-Agency Geographic Information for the Countryside
MCIEEM	Full member of the Chartered Institute of Ecology and Environmental Management
MMU	Minimum Mapping Unit
NERC	Natural Environment and Rural Communities
NGR	National Grid Reference
QCIEEM	Qualifying member of the Chartered Institute of Ecology and Environmental Management
RCA	River Condition Assessment
SBIC	Surrey Biodiversity Information Centre
SNCI	Site of Nature Conservation Importance
SxBRC	Sussex Biodiversity Record Centre
UKHab	UK Habitat Classification
WCA	Wildlife & Countryside Act 1981
WSCC	West Sussex County Council



1.0 Introduction

In August 2025, SLR Consulting Limited (SLR) was commissioned by Miller Homes (the Client) to produce an updated Ecological Impact Assessment (EclA) report relevant to two parcels of land adjacent to Worsell Drive, Copthorne (Ordnance Survey (OS) National Grid Reference: (NGR) TQ 30620 39196). The development zone is hereafter referred to as 'the Site' in this report.

Due to the time elapsed since the previous UKHabitat (UKHab) Classification survey was undertaken (September 2024¹²), an updated UKHab survey and desk study has been undertaken in 2025 and updated EclA report produced to present the results. The habitat survey, carried out as a baseline survey for the assessment, identified the habitats present on Site, the condition of the habitats present, and searched for the presence or potential presence of protected, notable, and invasive species. The desk study identified statutory and non-statutory ecological designations in the surrounding 2km, or if any rare or notable species have been recorded within 2km of the Site.

1.1 Site Description

The Site is separated into two parcels: the first is to the north, hereafter referred to as the 'Northern Parcel' (TQ 30736 39391), and the second located to the south, hereafter referred to as the 'Southern Parcel' (TQ 30611 39256). The Site is located east of the M23 and west of Copthorne village.

The Southern Parcel comprises two grassland fields and a site compound, whilst the Northern Parcel comprises hard standing habitat and grassland.

The wider surrounding landscape is a mosaic of agricultural fields bordered by hedgerows and areas of woodland, with the developed areas of Copthorne located less than 1km away to the east, and the town of Crawley less than 1km away to the south-west. Major roadways are present within the local surrounding landscape, including the M23 west of the Site and the A2011 to the south.

1.2 Details of the Proposed Development

The two parcels of land proposed for new homes sit within the existing Heathy Wood residential scheme. This benefitted from outline planning permission which was granted in May 2016 for 500 new homes. Various Reserved Matters applications have been approved to bring forward the detailed design of the Heathy Wood scheme at Copthorne.

The parcels were previously considered for a school and doctor's surgery. However, after extensive review, West Sussex County Council (WSCC) has confirmed that a new primary school is not required at this location as a new school could undermine the sustainability of existing schools. Instead, and in line with the obligations of the 2016 outline planning permission, significant financial contributions have been made towards education in the local area. The local medical group has advised it is not viable for it to bring forward a doctor's surgery. Therefore, as required by the outline planning permission, financial contributions have been made to support local healthcare facilities.

¹ SLR Consulting (2024). *Land Parcels off Worsell Drive, Copthorne – Ecological Impact Assessment (EclA) – St Modwen Homes*.

² Please note that St Modwen Homes Limited was bought in early 2025 by Miller Homes Limited, this purchase includes for the use of all previous reports.



Accordingly, there are two sustainably located parcels of land at Heathy Wood that are vacant and unused. It is proposed to deliver new homes on these parcels to complement and integrate within the existing homes and wider Copthorne community.

This report is prepared on the proposal of delivering 69 new homes across the two parcels of land. The description of development for the application is:

Description of Development: *Full planning application at two parcels of land adjacent to Worsell Drive, Copthorne, each accessed from existing bell-mouth junctions at Worsell Drive and Langridge Way, for the erection of new homes (Use Class C3) including affordable homes; internal access roads, landscaping and associated infrastructure.*

For Information Only (to be included as a condition): Number of homes: 69.

The application covers the two parcels outlined on the UKHab Plan (Appendix B), the Southern Parcel measuring 1.82ha with the Northern Parcel at 0.23ha.

The Northern Parcel, which is bordered by housing and roads, is currently devoid of trees and is primarily hard standing and grassland habitat. The dwellings will be accessed from a junction off Worsell Drive.

The Southern Parcel will be accessed off Langridge Way from an existing bell mouth junction that is already partially constructed. The application area comprises of grassland habitat and hard standing, and a group of trees.

As reported in the separate Arboricultural Report³, the assessment area has been surveyed and SLR presented Miller Homes with a Tree Constraints Plan increasing the ancient woodland buffer from 15m to a maximum of 20m in places to reduce the impact on the trees in comparison with previous arrangements.

1.3 Purpose of this Report

This report presents the findings of the EclA and seeks:

- To update the previous findings and conclusions of the 2024 EclA report;
- To describe the baseline data collection and assessment methods used;
- To summarise the baseline ecological conditions;
- To identify and describe all potentially significant ecological effects associated with the proposed development;
- To set out the design, mitigation and compensation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- To identify how mitigation and compensation measures will/could be delivered;
- To provide an assessment of the significance of any residual effects in relation to the effects on biodiversity and the legal and policy implications;
- To identify appropriate enhancement measures and how these will/could be delivered; and,
- To set out the requirements for post-construction monitoring.

³ SLR Consulting (2025). Land Parcels adjacent to Worsell Drive, Copthorne – AIA and AMS



1.4 Evidence of Technical Competence and Experience

The field survey was undertaken by Will Dent and Max Gibson from SLR. Will Dent BSc, MSc, Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) is a Project Ecologist with two years' of experience and Max Gibson, a Graduate Ornithologist with SLR.

Production of this updated EclA report has been completed by Daniela Imbimbo BSc, MSc, ACIEEM and Will Dent. Daniela is a Senior Ecologist from SLR and is an Associate member of the Chartered Institute of Ecology and Environmental Management with six years' experience as an ecological consultant.

The report has been subject to review and approval in accordance with SLR company procedures by Dr Andrea Wilcockson, BSc, MSc, PHD, CEnv, MCIEEM (Full member of the Chartered Institute of Ecology and Environmental Management), a Technical Director within SLR's Ecology & Biodiversity team who has over twenty-one years' experience in ecological consultancy.

1.5 Relevant Legislation and Policy

Relevant legislation⁴ and policy can be found in Appendix A. Local planning policy is summarised below:

1.5.1 Local – Mid Sussex District Plan 2014-2031 (Adopted 2018)

District planning policy is set out in the Mid Sussex District Plan 2014-2031, which was approved by Mid Sussex District Council on 28 March 2018.

This Plan sets out two specific policies of relevance to natural assets and biodiversity, these being Policies DP37 and DP38.

Policy DP37: Trees, Woodland and Hedgerows states:

"The District Council will support the protection and enhancement of trees, woodland and hedgerows, and encourage new planting. In particular, ancient woodland and aged or veteran trees will be protected.

Development that will damage or lead to the loss of trees, woodland or hedgerows that contribute, either individually or as part of a group, to the visual amenity value or character of an area, and/ or that have landscape, historic or wildlife importance, will not normally be permitted.

Proposals for new trees, woodland and hedgerows should be of suitable species, usually native, and where required for visual, noise or light screening purposes, trees, woodland and hedgerows should be of a size and species that will achieve this purpose.

Trees, woodland and hedgerows will be protected and enhanced by ensuring development:

- incorporates existing important trees, woodland and hedgerows into the design of new development and its landscape scheme;*
- prevents damage to root systems and takes account of expected future growth;*
- where possible, incorporates retained trees, woodland and hedgerows within public open space rather than private space to safeguard their long-term management;*
- has appropriate protection measures throughout the development process;*

⁴ SLR is not a legal practice, and the summary is provided as a reference only.



- *takes opportunities to plant new trees, woodland and hedgerows within the new development to enhance on-site green infrastructure and increase resilience to the effects of climate change; and*
- *does not sever ecological corridors created by these assets.*

Proposals for works to trees will be considered taking into account:

- *the condition and health of the trees;*
- *the contribution of the trees to the character and visual amenity of the local area;*
- *the amenity and nature conservation value of the trees;*
- *the extent and impact of the works; and*
- *any replanting proposals.*

The felling of protected trees will only be permitted if there is no appropriate alternative. Where a protected tree or group of trees is felled, a replacement tree or group of trees, on a minimum of a 1:1 basis and of an appropriate size and type, will normally be required. The replanting should take place as close to the felled tree or trees as possible having regard to the proximity of adjacent properties.

Development should be positioned as far as possible from ancient woodland with a minimum buffer of 15 metres maintained between ancient woodland and the development boundary.”

Policy DP38: Biodiversity states:

“Biodiversity will be protected and enhanced by ensuring development:

- *Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments;*
- *Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances);*
- *Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience;*
- *Promotes the restoration, management and expansion of priority habitats in the District; and*
- *Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.*

Designated sites will be given protection and appropriate weight according to their



importance and the contribution they make to wider ecological networks.

Valued soils will be protected and enhanced, including the best and most versatile agricultural land, and development should not contribute to unacceptable levels of soil pollution.

Geodiversity will be protected by ensuring development prevents harm to geological conservation interests, and where possible, enhances such interests. Geological conservation interests include Regionally Important Geological and Geomorphological Sites.”



2.0 Methodology

2.1 Scope

The scope of this EclA, i.e., the collection of baseline data, evaluation of ecological resources and description and assessment of the significance of impacts, follows the guidelines set out by the Chartered Institute of Ecology and Environmental Management (CIEEM)⁵ and references therein. The survey work has been undertaken in accordance with CIEEM's Code of Professional Conduct when undertaking ecological work.

This EclA relates to the proposed development at the Site, with the following areas being referred to in this assessment:

- the 'ecological study area' which extends up to 2km from the Site boundary;
- the 'survey area' which covers the Site and areas 30m adjacent to the boundary of the development (where visually and/physically accessible); and
- the 'proposed development footprint' which refers to areas due to be directly impacted by the development.

The conclusions and recommendations contained in this report are based on the broad scope of potential development works and affected locations. The scope of the EclA considers the presence of designated ecological sites (statutory and non-statutory), habitats of principal importance for the conservation of biodiversity, ancient woodland and protected and notable species.

2.2 Baseline Data Collection

2.2.1 Desk Study

In September 2024, an ecological desk-based study was undertaken which involved collating data from two local record centres; Sussex Biodiversity Record Centre (SxBRC) and Surrey Biodiversity Information Centre (SBIC) as the 2km buffer from the Site boundary was present in both. Data included details of statutory and non-statutory designated nature conservation sites, as well as protected and notable species within a 2km radius of the boundary of the Site.

Data records older than ten years were generally not included within the results but were used as supplementary information if relevant. Any records of a species that is not considered to be of notable importance has been excluded from the results within this report.

The Multi-Agency Geographic Information for the Countryside (MAGIC⁶) website was accessed in August 2025 to assess aerial imagery and OS maps of the Site and surrounding landscape, search for statutory sites, priority habitats (within 100m), ancient woodland sites and granted European Protected Species Licences (EPSL).

Waterbodies within 0.25km of the Site were identified via OS mapping available on MAGIC.

⁵ Chartered Institute of Ecology and Environmental Management (2018) *Guidelines for Ecological Impact Assessment* 3rd Edition.

⁶ <https://magic.defra.gov.uk/magicmap.aspx>.



The Environment Agency Catchment Data Explorer⁷ and Ecology and Fish Data Explorer⁸ were accessed to identify the quality of any watercourse(s) and to assess for the presence of protected species within any watercourse(s) located directly within the Site or within 0.05km of it.

Previously recorded survey data as part of the outline planning application for the Site was also reviewed, along with specific targeted survey data including surveys for reptiles undertaken during 2022 of the Middle Field area within the wider Copthorne site by SLR⁹.

2.2.2 Field Survey(s)

2.2.2.1 UKHab Survey & Protected Species Walkover Survey

The UK Habitat Classification (UKHab) survey was undertaken on the 29th August 2025 by Will Dent and Max Gibson. The Site was surveyed, including both the Northern Parcel and Southern Parcel, as well as a 30m radius of the Southern Parcel (where visual/ physical access was possible). The extent of the survey area is shown in the UKHab Plan (Appendix B).

All habitats within the Site and surrounding 30m (where accessible) were directly assessed for habitat type and condition, following the UKHab methodology¹⁰. Additionally, field signs of notable species were looked out for and recorded where applicable. The UKHab Classification is a comprehensive classification system for the UK that has been developed to benefit from changes in habitat categorisation, recording analysis in recent decades. The system comprises a principal hierarchy (the Primary Habitats) which include broad habitats and priority habitats and non-hierarchical Secondary codes i.e. g4 10 = grassland (modified) with scattered scrub. Habitat nomenclature and definitions have been designed to remain as close to existing systems as possible in order that data can be collected, analysed and translated without ambiguity.

Habitats identified during the survey were classified to Level 4 where possible. This level of survey includes the documentation of habitats to a recognised standard but also includes the recording of field evidence indicating the presence or potential presence of species.

Figures were mapped using the fine scale minimum mapping unit (MMU) (25m², 5m length), in accordance with the UK Habitat Classification User Manual¹¹.

The survey also involved recording any field evidence that indicated the presence or potential presence of species that could constitute a material consideration in planning terms, such as protected or notable plant or faunal species. This includes, but is not restricted to [REDACTED], bats, reptiles, water vole, otter, crayfish and breeding birds. Trees and any buildings present within the Site were assessed for their potential to support roosting bats via an external assessment at ground-level, based on criteria within the fourth edition of the Bat Conservation Trust's Good Practice Guidelines¹².

⁷ The Environment Agency The Catchment Data Explorer [online] Available at: <https://environment.data.gov.uk/catchment-planning>.

⁸ The Environment Agency Ecology & Fish Data Explorer [online] Available at: <https://environment.data.gov.uk/ecology/explorer/>.

⁹ SLR Consulting (2022) Middle Field, Copthorne, Crawley.

¹⁰ UKHab Ltd (2023). *UK Habitat Classification* Version 2.0 (at <https://www.ukhap.org>).

¹¹ The UK Habitat Classification Working Group (2023) *The UK Habitat Classification User Manual* Version 2.0.

¹² Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th ed). The Bat Conservation Trust, London.



Whilst not a full botanical or protected species survey, this method of survey enables experienced ecologists to obtain an understanding of the ecology of a site such that it is possible either:

- to confirm the conservation significance of the Site and assess the potential for impacts on habitats/species likely to represent a material consideration in planning terms; or
- to establish the scope and extent of any additional specialist ecological surveys that will be required before such confirmation can be made.

In addition, the presence of Invasive Non-Native Species (INNS) of plant that are included within Schedule 9 of the Wildlife and Countryside Act 1981, was searched for during the survey. Plants included within the schedule are considered derogated pest species that are pernicious or injurious, such as Japanese knotweed (*Reynoutria japonica*) and giant hogweed (*Heracleum mantegazzianum*). It is an offence under the Act to plant or cause the spread of these species in the wild.

2.2.2.2 Condition Assessment (using Natural England Metric criteria)

Each habitat parcel (or group of adjacent parcels of the same habitat type and condition) were assessed for their condition using criteria produced by Natural England (Natural England 2023¹³). As part of the condition assessment, information was collected on the physical characteristics of the habitat, the presence of positive indicator species and the presence of invasive non-native species. Each qualifying habitat parcel was assigned a condition score of 'poor', 'moderate' or 'good'.

2.2.2.3 Ground Level Tree Assessment (GLTA)

The Site and surrounding 30m was subject to an initial assessment based on habitat mapping and aerial data to classify its value for local bats, thus informing the survey effort in line with guidance at the time¹².

Trees, where accessible and visible, were assessed from ground level with the aim of establishing whether there is the potential to support roosting bats, and determine the need, or otherwise, for further surveys. Using a tree potential roost feature (PRF) assessment form, details about trees found to have bat potential were recorded including what type of feature was found, how high up the feature was and the direction that the feature was facing. Photographs were taken of each tree and the PRF's present and a grid reference was recorded for each tree for mapping by GIS. High-powered binoculars and a torch were used to identify and record features that may be used by bats for roosting. Bats are known to roost in tree holes, cracks, splits and other fissures, behind loose bark and epiphytic growth.

Some of the features looked for from ground level that could be of potential for roosting bats include the following:

- woodpecker holes;
- knot holes;
- tear outs and pruning cuts;
- hazard beams and frost cracks;
- lifting bark;

¹³ Natural England. 2023. *The Biodiversity Metric 4.0 - Technical Annex 1: Condition Assessment Sheets and Methodology*. Peterborough: Natural England.



- dense ivy covering; and
- lightning strikes or cracks caused by subsidence.

The following classifications were used as outlined in Table 2-1 (Collins 2023).

Table 2-1: Tree Suitability for Roosting Bats from GLTA

Suitability	Description
NONE	Either no PRF's in the tree or highly unlikely to be any
FAR	Further Assessment required to establish if PRF's are present in the tree
PRF	A tree with at least one PRF present

Trees were assessed as being either PRF-I, suitable for individual bats or PRF-M, suitable to support multiple bats. Further categorisation using the criteria outlined in Table 2-2 was undertaken where PRF's were fully accessible. However, due to access limitations including the height of many PRF's and vegetation density obscuring view, a full inspection of each tree was not possible from the ground. As a result, only accessible PRF's were assessed and categorised from ground level, and the assigned suitability values should be considered indicative rather than definitive.

Table 2-2: Tree Suitability Based on Potential Suitability of PRF's

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony



2.2.2.5 Water Vole Survey

Prior to going to Site, accessible aerial imagery was used to search for potentially suitable water vole (*Arvicola amphibius*) habitat within or adjacent to the Site. A review of imagery highlighted the watercourse located to the west and north of the Southern Parcel as suitable habitat for water vole. The Survey Area comprised a total of 680m of watercourse and suitable areas of habitat adjacent within 50m of the banks. This included the area of Copthorne Brook within the Site and 100m up and downstream, and 100m of the watercourse to the west of the Southern Parcel.

The watercourse was then assessed for the following qualities in the field for water vole:

- suitability of bank profile and substrate for burrow excavation;
- extent of herbaceous vegetation within the watercourse and along the bank;
- water level extent and stability; and
- overshadowing extent.

A detailed search of the bank-side habitat, including a two-metre margin on the bank top was undertaken and any signs of water vole activity were recorded including:

- burrows dug into the bankside both above and below the water line;
- above ground nest sites – balls of vegetation;
- runs, tracks or passageways through vegetation on the bankside;
- droppings and latrines (consisting of a collection of droppings) – faeces left by water vole typically at the entrance to burrows or located in or close to feeding areas or left to mark territories;
- feeding signs, including cut lengths of grasses, reeds and sedges left in piles and ‘grazed’ lawn areas around burrow entrances; and
- footprints – often left in soft mud by the water’s edge.

2.2.2.6 Otter Survey

The survey involved assessing the suitability of the watercourse and habitats within the Survey Area in line with survey guidance¹⁵ and a targeted search for evidence of otter presence. Habitat characteristics assessed included:

- water depth, quality, and likely frequency and height of water level changes, relative to bank height;
- presence of potential couch, lay-up points, or holt locations (such as overhanging tree roots);

¹⁵ Chanin P (2003). *Monitoring the Otter Lutra lutra*. *Conserving Natura 2000 Rivers Monitoring Series No. 10*, English Nature, Peterborough.



- presence of spraint and spraint-marking locations (prominent features such as large rocks protruding from the watercourse, bridges, and logs);
- presence of prey items within the watercourse or within proximity to; and
- presence of public pressure/disturbance.

The targeted search included searching for otter signs such as:

- incidental otter sightings;
- spraints;
- slides;
- pawprints and tracks;
- feeding remains; and
- otter remains.

2.2.2.7 Crayfish Survey/ eDNA analysis

A survey of the watercourse to the west and north of the Southern Parcel was conducted to search for evidence of crayfish species, with a particular focus on white-clawed crayfish (*Austropotamobius pallipes*) and invasive, non-native signal crayfish (*Pacifastacus leniusculus*). The watercourse was searched for any suitable refuges for crayfish and a visual search for crayfish in the watercourse was undertaken whilst walking along the watercourse. Any evidence or signs of crayfish presence were noted down and mapped to show their location.

To test for the presence of crayfish, a crayfish eDNA sample kit was purchased from SureScreen Scientifics and used in the field to test the watercourse for the potential presence of two species: white-clawed crayfish, and signal crayfish. Using the kit, water samples were retrieved from varying areas of the watercourse and sent off to SureScreen Scientifics to analyse. The water samples were then analysed in a laboratory setting and the results were sent back to SLR in report form.

2.2.2.8 River Condition Assessment (RCA) Survey

A MoRPH5 field survey was conducted on the 3rd February 2025, followed by an RCA desk-based survey. These two elements were used to evaluate the condition of the watercourse.

The field survey was carried out in accordance with the “MoRPH” survey methodology¹⁶, where field information for subreaches of a stream or river are collected across a minimum of 20% of the total stream/river length within the proposed development area. A total of five MoRPH modules were surveyed to complete a MoRPH5 survey¹⁷, assessing any variations and features of the watercourse. Where possible, both banks were accessed for the assessment. River condition is assessed using 32 condition indicators that are automatically extracted from MoRPH5 field surveys. Each river condition indicator is assigned a score of 0 to +4 (positive indicators) or 0 to -4 (negative indicators). Positive indicators represent the

¹⁶ Modular River Survey (2019). *The MoRPH Survey: Field Guide*. Available at:

<https://modularriversurvey.org/professional-help/>

¹⁷ A.M. Gurnell, J. England, S.J. Scott, L.J. Shuker (2020) *A GUIDE TO ASSESSING RIVER CONDITION* Part of the Rivers and Streams Component of the BioDiversity Net Gain Metric. Available at:

<https://modularriversurvey.org/professional-help/>



diversity and abundance of physical habitats offered by vegetation, sediment, vegetation-sediment-related physical features, and hydraulic habitats that can be observed at low flow. Negative indicators represent the extent and severity of local human interventions or pressures.

The Preliminary Condition Score for (each) MoRPh5 subreach is then calculated as the sum of the average of the positive condition indicator scores and the average of the negative condition indicator scores for the subreach. The Preliminary Condition Score is translated into a Final Condition Score (5-good, 4- fairly good, 3-moderate, 2-fairly poor, 1-poor) based upon the River Type.

In addition, the “shape” factor is considered in the condition assessment, this indicates the degree to which a river is hydrologically/ecologically connected to its flood plain – if a channel is too deep relative to its width to be hydrologically connected, then the final condition score will be downgraded¹⁸.

2.2.3 Biodiversity Net Gain (BNG) Assessment

The results of the UKHab survey and condition assessments are to be analysed within the Statutory Biodiversity Metric to calculate the biodiversity value of the Sites baseline and predicted value post-construction.

The Biodiversity Metric uses habitat as a proxy for biodiversity, and its primary application is to provide planners and developers with a method of establishing how much and what type of habitats should be created or enhanced to ensure that the impacts of developments do not result in a net loss of biodiversity. Habitats are assigned the following multiplier scores¹ which affect their value:

- Distinctiveness: A measure of the type, importance, and relative rarity of a habitat;
- Condition: A measure of the present, or predicted, condition of a habitat type; and
- Strategic significance: How a habitat/area is regarded within Local Planning Policy.

Results of the BNG assessment are included within Appendix C.

2.2.4 Limitations

2.2.4.1 Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the Site. Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field.

2.2.4.2 Field Survey(s)

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence of any one species in particular does not necessarily preclude them from being present on a site at a later date. For example, some species, such as bats, are highly mobile and can move between roosts in response to changes in environmental factors; the activity level of an identified place of shelter may therefore fluctuate during the year.

¹⁸ Available at: [Considering connectivity in River Condition Assessments – Modular River Survey](#).



MoRPH surveys are best conducted in low flow conditions and during spring and summer to capture information on both the vegetative and physical properties of the river and its margins. The individual MoRPH surveys are intended to be appropriately spread across the affected watercourse extent, with a focus also on areas most likely to be subject to interventions and areas representing a “control” site with limited impacts. The MoRPH surveys are designed to be undertaken from the bank top, i.e., no entry into the water is required. In addition, the survey can be undertaken from one bank only, or both banks, depending on accessibility.

The survey was undertaken during the appropriate time of the year with limitations encountered during the field survey oriented around rain which occurred during the survey. Despite this, the Site was still fully visible during the survey, and the watercourse was entirely visible to undertake observations and samples from the watercourse.

2.3 Assessment Approach

The ecological evaluation and impact assessment approach used in this report is based on Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (“CIEEM guidelines”⁵).

2.3.1 Important Ecological Features

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and/ or species rarity; the extent to which such habitats and/ or species are threatened throughout their range, or to their rate of decline.

2.3.1.1 Determining Importance

The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case, relying on known/ published accounts of distribution and rarity where available, and professional experience:

- International;
- National (UK/ England);
- Regional (South-East England);
- County (West Sussex); and
- Local (the Site, within circa 2km).

The above frame of reference is applied to the ecological features identified during the desk study and surveys to inform this report.

The value of habitats has been measured against published selection criteria where available. Examples of relevant criteria include: descriptions of habitats listed on Annex 1 of the Habitats Directive; descriptions of habitats of principal importance for biodiversity under Section 41 of Natural Environment and Rural Communities (NERC) Act 2006; Local Wildlife Site Selection Criteria; and Habitat Action Plans (HAPs) contained within Local Biodiversity Action Plans.

In assigning a level of value to a species, it is necessary to consider its distribution and status, including a consideration of trends based on available historical records. Reference has therefore been made to published lists and criteria where available. Examples of relevant lists and criteria include: species of European conservation importance (as listed on Annexes II, IV and V of the Habitats Directive or Annex 1 of the Birds Directive); species of



principal importance for biodiversity under Section 41 of the NERC Act 2006 and Birds of Conservation Concern¹⁹.

For the purposes of this report, ecological features of local importance or greater and/or subject to legal protection have been subject to detailed assessment. Effects on other ecological features are considered unlikely to be significant in legal or policy terms.

2.3.2 Impact Assessment

The impact assessment process involves the following steps:

- identifying and characterising potential impacts;
- incorporating measures to avoid and mitigate (reduce) these impacts;
- assessing the significance of any residual effects after mitigation;
- identifying appropriate compensation measures to offset significant residual effects (if required); and
- identifying opportunities for ecological enhancement.

When describing impacts, reference has been made to the following characteristics, as appropriate:

- Positive or negative;
- Extent;
- Magnitude;
- Duration;
- Timing;
- Frequency; and
- Reversibility.

The impact assessment process considers both direct and indirect impacts: direct ecological impacts are changes that are directly attributable to a defined action, e.g. the physical loss of habitat occupied by a species during the construction process. Indirect ecological impacts are attributable to an action, but which affect ecological resources through effects on an intermediary ecosystem, process or feature, e.g. the creation of roads which cause hydrological changes, which, in the absence of mitigation, could lead to the drying out of wet grassland.

Consideration of conservation status is important for evaluating the effects of impacts on individual habitats and species and assessing their significance:

- Habitats – conservation status is determined by the sum of the influences acting on the habitat that may affect its extent, structure and functions as well as its distribution and its typical species within a given geographical area.
- Species – conservation status is determined by the sum of influences acting on the species concerned that may affect its abundance and distribution within a given geographical area.

¹⁹ 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.



2.3.3 Significant Effects

Significance is a concept related to the weight that should be attached to effects when decisions are made. For the purpose of EclA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local and the scale of significance of an effect may or may not be the same as the geographic context in which the feature is considered important.

2.3.4 Cumulative Effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. Cumulative effects can occur where a proposed development results in individually insignificant impacts that, when considered in-combination with impacts of other proposed or permitted plans and projects, can result in significant effects.

2.3.5 Avoidance, Mitigation, Compensation and Enhancement

When seeking mitigation or compensation solutions, efforts should be consistent with the geographical scale at which an effect is significant. For example, mitigation and compensation for effects on a species population significant at a county scale should ensure no net loss of the population at a county scale. The relative geographical scale at which the effect is significant will have a bearing on the required outcome which must be achieved.

Where potentially significant effects have been identified, the mitigation hierarchy has been applied, as recommended in the CIEEM Guidelines. The mitigation hierarchy sets out a sequential approach beginning with the avoidance of impacts where possible, the application of mitigation measures to minimise unavoidable impacts and then compensation for any remaining impacts. Once avoidance and mitigation measures have been applied residual effects are then identified along with any necessary compensation measures, and incorporation of opportunities for enhancement.

It is important for the EclA to clearly differentiate between avoidance mitigation, compensation and enhancement and these terms are defined here as follows:

- Avoidance is used where an impact has been avoided, e.g. through changes in scheme design;
- Mitigation is used to refer to measures to reduce or remedy a specific negative impact *in situ*;
- Compensation describes measures taken to offset residual effects, i.e. where mitigation *in situ* is not possible; and
- Enhancement is the provision of new benefits for biodiversity that are additional to those provided as part of mitigation or compensation measures, although they can be complementary.



3.0 Baseline Ecological Conditions

The results of the desk and field study are reported below and describe the baseline conditions at the Site and within the immediate surrounding areas.

3.1 Designated Sites

3.1.1 Statutory Designated Sites

SxBRC returned one statutory designated site within 2km of the Site; which is Grattons Park Local Nature Reserve (LNR) located approximately 1.86km south-west of the Site. Habitats at Grattons Park LNR include broadleaved woodland, a stream, a pond, and meadows. The LNR supports various bird species including kingfisher (*Alcedo atthis*), woodpecker (*Picus sp.*), nuthatch (*Sitta europaea*), long-tailed tits (*Aegithalos caudatus*), dragonflies, and damselflies. Bluebells (*Hyacinthoides non-scripta*), lesser celandine (*Ficaria verna*), wild daffodils (*Narcissus pseudonarcissus*), primrose (*Primula vulgaris*), and wild garlic (*Allium ursinum*) can be found within the woods present. This LNR is located beyond the major infrastructure highway M23 and an expanse of built environment with no hydrological corridors identified between itself and the Site. As such, impacts upon this site are not anticipated and therefore, it is not considered further in this assessment.

SBIC returned no records of statutory designated sites within 2km.

3.1.2 Non-Statutory Designated Sites

SxBRC returned two non-statutory designated sites within 2km of the Site. Horleyland Wood Local Wildlife Site (LWS) is approximately 2km north-west and Copthorne Common LWS is approximately 1km south-east of the Site.

SBIC returned four non-statutory designated sites within 2km of the Site. Copthorne Meadows Site of Nature Conservation Importance (SNCI) is approximately 1.9km north-east and is selected for its species rich grassland. Stonelands Wood Potential Site of Nature Conservation Importance (pSNCI) is approximately 0.9km to the north-east of the Site. Kiln Heath pSNCI is approximately 1.44km to the north-east and Murgins Wood pSNCI approximately 1.85km north-east.

All confirmed non-statutory sites are located beyond 1km from the Site, with only one potential site closer c0.8km from the Site. Notwithstanding, expanses of built environment are located between all the non-statutory designated sites and the Site, in addition to major infrastructure highways in most cases. No hydrological corridors have been identified between the sites and the Site.

Non-statutory designated sites have not been considered further in this assessment.

3.2 Habitats

3.2.1 Habitats of Principal Importance

The Southern Parcel is bordered by Ancient Woodland, Wellfield Copse which is located to the north and west of the Site.

SBIC returned records of four ancient semi-natural woodlands in the Ancient Woodland Inventory (AWI). Three of these, unnamed sites, are located approximately 0.64km north with 2.2ha, 1.84km north-east with 0.8ha and 1.64km north-east with 5.4ha from the Southern Parcel. Shipley Bridge Wood is located approximately 0.65km north-east of the Southern Parcel.



SxBRC also returned three Section 41 habitats including traditional orchard, deciduous woodland and ancient woodland within 2km of the Southern Parcel.

A review of MAGIC returned the following results:

- 21 good quality semi-improved grassland habitats all located south-east of the Site;
- 36 areas of ancient woodland, of these, five are ancient, replanted woodlands. All of the woodland areas are located within 2km of the Site; one of which is located immediately adjacent to the Southern Parcel to the north and west;
- 130 areas of Priority Habitat: Deciduous Woodland which are all located within 2km of the Site; one of which is located immediately adjacent to the north and west of the Southern Parcel;
- Three areas of Priority Habitat: Traditional Orchard within 2km of the Site, with the closest parcel located 0.3km north-east of the Site and the other two located 0.6km north-east and 1.8km north of the Site; and
- One area of Priority habitat Wood Pasture and Parkland BAP located 1.16km north-east of the Site.

Two Priority Habitats (ancient woodland and deciduous woodland) have been identified immediately adjacent to the Southern Parcel, which have therefore been assessed as having county level importance and will therefore be taken forward in this assessment as part of the Site habitats within a 30-metre buffer.

Other Priority Habitats identified during the desk study are located at a distance such that impacts are considered unlikely and therefore have not been taken forward in this assessment.

3.2.2 Habitats within the Site

Descriptions of habitats within the Site are provided within Table 3-1, the locations and extent of the habitats are shown in Appendix B.

The UK Hab Classification survey primary codes which the habitats are attributed to, are included within the text below, i.e. g4 – modified grassland. The habitats in the survey area were predominantly grassland habitat and developed land; sealed surface.

Table 3-1: UKHab Classification Survey Results

Photograph (if available)	Habitat Description
Northern Parcel	
	Primary Classification: g4 – modified grassland Secondary codes: • 10 – scattered scrub • 521 – unmanaged Most of the Northern Parcel is dominated by grassland. The dominant plant species of this grassland include common bent (<i>Agrostis capillaris</i>), Yorkshire fog (<i>Holcus lanatus</i>), common thistle



Photograph (if available)	Habitat Description
	(<i>Cirsium vulgare</i>), and broad-leaved dock (<i>Rumex obtusifolius</i>). Other annual species include coltsfoot (<i>Tussilago farfara</i>), common thistle, ragwort (<i>Jacobaea vulgaris</i>), and meadow buttercup (<i>Ranunculus acris</i>).
	Primary Classification: h3h – mixed scrub In the northwestern corner of the vegetated parcel is a section of bramble (<i>Rubus fruticosus</i>), hoary groundsel (<i>Jacobaea erucifolia</i>), curly dock (<i>Rumex crispus</i>), and ribwort plantain (<i>Plantago lanceolata</i>).
	Primary Classification: u1b – developed land – sealed surface Surrounding the Site are pavements and residential properties where access was not available to survey.
Southern Parcel	
 	Primary Classification: g4 - modified grassland Secondary codes: • 10 – scattered scrub • 521 – unmanaged The Southern Parcel was dominated by modified grassland, on a flat area of land. The grassland has had limited management and overgrown with dominant species including crested dog's-tail (<i>Cynosurus cristatus</i>), broad-leaved dock, ragwort, common fleabane (<i>Pulicaria dysenterica</i>), alfalfa (<i>Medicago sativa</i>), soft rush (<i>Juncus effusus</i>), cats ear (<i>Hypochaeris radicata</i>), bush vetch (<i>Vicia sepium</i>). Other species included slender tare (<i>Vicia parviflora</i>), common mouse ear (<i>Cerastium fontanum</i>), ribwort plantain, birds foot trefoil (<i>Lotus corniculatus</i>), ladies bedstraw (<i>Galium verum</i>), creeping buttercup (<i>Ranunculus repens</i>), knapweed (<i>Centaurea nigra</i>), white clover (<i>Trifolium repens</i>), wild carrot (<i>Daucus</i>



Photograph (if available)	Habitat Description
	<i>carota</i>), field bindweed (<i>Convolvulus arvensis</i>), hedge cranes bill (<i>Geranium pyrenaicum</i>), hard rush (<i>Juncus inflexus</i>), common thistle, Yorkshire fog, common bent, red clover, common nettle, cocksfoot, scentless mayweed, false oat grass, and bracken (<i>Pteridium aquilinum</i>).
	Primary Classification: w1f7 – other lowland mixed deciduous woodland Secondary codes: • 214 – fallen deadwood abundant • 215 – standing deadwood abundant • 521 – unmanaged All mature oak (<i>Quercus sp.</i>) trees with smaller hazel (<i>Corylus avellana</i>) and holly (<i>Ilex aquifolium</i>) stands. The ground flora is similar to east woodland, which includes oak saplings, bramble, garlic mustard (<i>Alliaria petiolata</i>), black bryony (<i>Dioscorea communis</i>), musk mallow (<i>Malva moschata</i>), bracken (<i>Pteridium aquilinum</i>), swan's-neck thyme-moss (<i>Mnium hornum</i>), and gypsywort (<i>Lycopus europaeus</i>). Along the bankside of Copthorne brook, in the north-eastern section of this woodland there was an invasive non-native species: buddleia (<i>Buddleja davidii</i>) identified. No other instances of this species occurred during the survey.
	Primary Classification: h3h - mixed scrub Adjacent to the west boundary of the Southern Parcel is a good ecotone of vegetation with sapling trees grown up forming successional growth with species including willow species (<i>Salix sp.</i>), silver birch (<i>Betula pendula</i>), hazel, aspen (<i>Populus tremula</i>), and bramble understory.



Photograph (if available)	Habitat Description
	Primary Classification: u1c – artificially unvegetated unsealed surface To the south there is a compound with no vegetation.
	Primary Classification: u1b – developed land – sealed surface Surrounding the Site are pavements and residential properties where access was not available to survey.

3.2.3 Summary of Habitat Value

The habitats within the Site were ubiquitous of the local landscape and whilst they offered ecological value to local protected species (should they be present) the habitat types alone were not considered a significant ecological constraint to the proposed development. Overall, the habitats were evaluated as important to the Site only.

Impacts from the proposed development upon the habitats present on the Site has been considered further within this assessment.

3.3 Species

3.3.1 Plants

SBIC returned one record and SxBRC returned 23 records of 12 protected plant species within 2km of the Site which are summarised below in Table 3-2.

Table 3-2: Plant Species Records within 2km of the Site

Species	Protection	Record centre
Bluebell	WCA Sch8	SxBRC and SBIC
Pennyroyal (<i>Mentha pulegium</i>)	WCA Sch8, NERC S41	SxBRC
Cornflower (<i>Centaurea cyanus</i>)	NERC S41	SxBRC
Common heather (<i>Calluna vulgaris</i>)	RedList ENG post2001 NT	SxBRC
Wild strawberry (<i>Fragaria vesca</i>)	RedList ENG post2001 NT	SxBRC
Field pepperweed (<i>Lepidium campestre</i>)	RedList ENG post2001 NT	SxBRC
Tormentil (<i>Potentilla erecta</i>)	RedList ENG post2001 NT	SxBRC
Lesser spearwort (<i>Ranunculus flammula</i>)	RedList ENG post2001 NT	SxBRC
Meadow saxifrage (<i>Saxifraga granulata</i>)	RedList ENG post2001 NT	SxBRC
Ragged robin (<i>Silene flos-cuculi</i>)	RedList ENG post2001 NT	SxBRC



Species	Protection	Record centre
Common Valerian (<i>Valeriana officinalis</i>)	RedList ENG post2001 NT	SxBRC
Common speedwell (<i>Veronica officinalis</i>)	RedList ENG post2001 NT	SxBRC

No protected species of plant were identified during the 2025 update survey. The Site did not contain any species-rich habitats or those that are associated with notable or rarer plant species. The species recorded during the survey and habitats present are considered to be common and widespread locally. Therefore, protected plant species have not been considered further in this assessment.

3.3.1.1 Invasive non-native plant species

SBIC returned six records of three invasive non-native species (INNS) of plant and SxBRC returned no invasive plant species within 2km of the Site. These results are summarised in Table 3-3 below.

Table 3-3: Invasive Non-Native Plant Species Records within 2km of the Site

Species	Wildlife & Countryside Act Schedule	Closest Record
Rhododendron (<i>Rhododendron ponticum</i>)	WCA Sch9 pt2	0.56 north
Montbretia (<i>Crocasmia × crocosmiiflora</i>)	WCA Sch9 pt2	0.96 north-west
Yellow Archangel (<i>Lamium galeobdolon</i>)	WCA Sch9 pt2	0.81 north-east

During the 2025 update survey, invasive non-native buddleia was observed on the north-eastern edge of the watercourse close to the road (Worsell Drive). This was within the 30m buffer zone of the Southern Parcel and therefore, invasive non-native plant species have been considered further in this assessment.

3.3.2 Invertebrates

SBIC returned 21 records for five species of invertebrate and SxBRC returned 322 records for 88 species of invertebrate within 2km of the Site. Of these records, 29 species are listed under Section 41 of the NERC Act and/or Schedule 5 of the WCA with the results summarised in Table 3-4 below.

Table 3-4: Invertebrate records within 2km of the Site

Species	Records	Protection	Record Centre
Long-horned bee (<i>Eucera longicornis</i>)	1	NERC S41	SxBRC
Scarce four-dot pin-palp (<i>Bembidion quadripustulatum</i>)	1	NERC S41	SxBRC
Small heath (<i>Coenonympha pamphilus</i>)	74	NERC S41	SxBRC
	10		SBIC
Dingy skipper (<i>Erynnis tages</i>)	7	NERC S41	SxBRC
	2		SBIC
White admiral (<i>Limenitis Camilla</i>)	22	NERC S41	SxBRC
	4		SBIC
Knot grass (<i>Acronicta rumicis</i>)	4	NERC S41	SxBRC
Centre-barred sallow (<i>Atethmia centrugo</i>)	2	NERC S41	SxBRC



Species	Records	Protection	Record Centre
Sallow (<i>Cirrhia icteritia</i>)	1	NERC S41	SxBRC
Oak lutestring (<i>Cymatophorina diluta</i>)	2	NERC S41	SxBRC
Small square-spot (<i>Diarsia rubi</i>)	5	NERC S41	SxBRC
Small phoenix (<i>Ecliptopera silaceata</i>)	1	NERC S41	SxBRC
Dusky thorn (<i>Ennomos fuscantaria</i>)	1	NERC S41	SxBRC
August thorn (<i>Ennomos quercinaria</i>)	1	NERC S41	SxBRC
Galium carpet (<i>Epirrhoe galiata</i>)	1	NERC S41	SxBRC
Ghost moth (<i>Hepialus humuli</i>)	4	NERC S41	SxBRC
Rustic (<i>Hoplodrina blanda</i>)	2	NERC S41	SxBRC
Shoulder-striped wainscot (<i>Leucania comma</i>)	4	NERC S41	SxBRC
Lunar yellow underwing (<i>Noctua orbona</i>)	1	NERC S41	SxBRC
Shaded broad-bar (<i>Scotopteryx chenopodiata</i>)	1	NERC S41	SxBRC
White ermine (<i>Spilosoma lubricipeda</i>)	4	NERC S41	SxBRC
Buff ermine (<i>Spilosoma lutea</i>)	3	NERC S41	SxBRC
Blood-vein (<i>Timandra comae</i>)	6	NERC S41	SxBRC
Cinnabar (<i>Tyria jacobaeae</i>)	8	NERC S41	SxBRC
Oak hook-tip (<i>Watsonalla binaria</i>)	5	NERC S41	SxBRC
White-clawed crayfish (<i>Austropotamobius pallipes</i>)	1	WCA Sch5, NERC S41	SxBRC
White-letter hairstreak (<i>Satyrrium w-album</i>)	3	WCA Sch5, NERC S41	SxBRC
Brown hairstreak (<i>Thecla betulae</i>)	12	WCA Sch5, NERC S41	SxBRC
	2		SBIC
Continental swallowtail (<i>Papilio machaon gorganus</i>)	1	WCA Sch5	SxBRC
Scarce four-dot pin-palp (<i>Bembidion quadripustulatum</i>)	1	NERC S41	SBIC
Small heath (<i>Coenonympha pamphilus</i>)	7	NERC S41	SBIC

No specific surveys for invertebrates were undertaken; however, no protected invertebrate species were identified during the 2025 update survey. Habitats within the Site were considered likely to support populations of widespread and common invertebrates. As such habitats are ubiquitous within the local landscape, they are therefore unlikely to support invertebrate assemblages of any particular importance. Invertebrates have therefore not been considered further in this assessment.

3.3.3 Amphibians

SBIC returned no records for amphibians within 2km of the Site. SxBRC returned 97 records for five species of amphibian within 2km of the Site as summarised in Table 3-5.



Table 3-5: Amphibians Records within 2km of the Site

Species	Records	Closest distance (km)	Protection
Great Crested Newt (GCN) (<i>Triturus cristatus</i>)	27	1.44	Hab Reg Sch2, WCA Sch5, NERC S41
Smooth newt (<i>Lissotriton vulgaris</i>)	19	1.43	WCA Sch5
Palmate newt (<i>Lissotriton helveticus</i>)	9	1.66	WCA Sch5
Common frog (<i>Rana temporaria</i>)	26	0.23	WCA Sch5
Common toad (<i>Bufo bufo</i>)	16	1.66	WCA Sch5, NERC S41

A search on the accessible database MAGIC identified five EPS licences granted for GCN at three locations within 2km of the Site as listed within Table 3-6 below.

Table 3-6: EPS Licences Granted for GCN within 2km of the Site

Case Reference No.	Licence Start/ End Date	Reason for Impact	Distance/ Direction from Site
2017-31507-EPS-MIT-1	27/06/2018 - 31/12/2023	Destruction of a breeding site and resting place	0.7km south-west
2017-31507-EPS-MIT-2	26/11/2018 - 31/12/2020	Damage of a resting place and destruction of a resting place	0.7km south-west
2016-19744-EPS-AD2	13/04/2016 - 30/06/2020	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	1.6km west
EPSM2012-4097	10/10/2012 - 30/06/2016	Destruction of a resting place	1.7km north-west
2014-5188-EPS-MIT	27/11/2014 - 30/06/2016	Not specified	1.7km north-west

MAGIC also returned GCN class licence returns from five locations within 2km of the Site as shown in Table 3-7 below.

Table 3-7: GCN Class Survey Licence Returns within 2km of the Site

Object ID	Survey Date	GCN Present Y/N	Grid Reference	Distance/Direction from Site
26880	07/05/2014	Y	TQ294404	1.5km NW
35656	08/05/2014			
37351	09/06/2016			
37352	15/03/2017			
39563	24/02/2017			
39564	11/04/2017			
29800	22/05/2014	Y	TQ293403	1.5km NW
35653	07/05/2014			
26881	17/06/2015	Y	TQ292403	1.6km NW



Object ID	Survey Date	GCN Present Y/N	Grid Reference	Distance/Direction from Site
29800	22/05/2014			
29803	17/05/2016			
34428	09/04/2015			
35653	07/05/2014			
35657	31/03/2016			
35658	23/05/2016			
37350	04/06/2015			
39565	18/05/2016			
39566	11/04/2017			
39568	04/06/2016			
44801	30/04/2015			
44802	15/03/2017			
46789	04/05/2016			
47007	02/04/2015			
29802	19/05/2014	Y	TQ287388	1.8km SW
34429	29/04/2014			
29801	01/05/2017	Y	TQ289387	1.6km SW

All records of GCN and other amphibian species are disconnected from the Site by the M23, which is likely to act as a barrier to amphibian dispersal.

No amphibians were recorded during the 2025 update survey. A watercourse is located to the north and west of the Southern Parcel, but as it flows it is unlikely to support breeding amphibians. The habitats within the Site are ubiquitous within the local landscape and offer foraging, commuting, and sheltering habitat for local amphibians. However, due to the lack of nearby and connected suitable waterbodies to the Site, it is considered unlikely that amphibians, such as GCN are a receptor to the proposed works. Therefore, amphibians have not been considered further in this assessment.

3.3.4 Birds

SBIC returned no records of protected and/ or notable species of bird within 2km of the Site. SxBRC returned 304 records of 34 protected and/ or notable species of bird within 2km of the Site. Of these 34 species, 17 are listed under Section 41 of the NERC Act and/or Schedule 5 of the WCA with results summarised within Table 3-8 below.

Table 3-8: Protected and/or Notable Bird Records within 2km of the Site

Species	Records	Protection
Red kite (<i>Milvus milvus</i>)	33	WCA Sch 1
Kingfisher (<i>Alcedo atthis</i>)	34	WCA Sch 1
Hobby (<i>Falco subbuteo</i>)	11	WCA Sch 1
Crossbill (<i>Loxia curvirostra</i>)	1	WCA Sch 1
Firecrest (<i>Regulus ignicapilla</i>)	2	WCA Sch 1



Species	Records	Protection
Barn owl (<i>Tyto alba</i>)	3	WCA Sch 1
Skylark (<i>Alauda arvensis</i>)	2	NERC S41
Yellowhammer (<i>Emberiza citronella</i>)	6	NERC S41
Reed bunting (<i>Emberiza schoeniclus</i>)	1	NERC S41
Hawfinch (<i>Coccothraustes coccothraustes</i>)	1	NERC S41
Linnet (<i>Linaria cannabina</i>)	1	NERC S41
Bullfinch (<i>Pyrrhula pyrrhula</i>)	2	NERC S41
Marsh tit (<i>Poecile palustris</i>)	10	NERC S41
House sparrow (<i>Passer domesticus</i>)	11	NERC S41
Dunnock (<i>Prunella modularis</i>)	7	NERC S41
Starling (<i>Sturnus vulgaris</i>)	10	NERC S41
Song thrush (<i>Turdus philomelos</i>)	3	NERC S41

No protected and/ or notable bird species were recorded during the 2025 update habitat survey.

The grassland habitat, mixed scrub and trees present within the Site, and the nearby woodland were considered to offer suitable nesting opportunities for nesting birds, in particular passerine species. Therefore, nesting birds have been considered further in this assessment.

3.3.5 Reptiles

SBIC returned no records of reptiles within 2km of the Site. SxBRC returned a total of 99 records of three species of reptile within 2km of the Site. All Species returned are listed under Section 41 of the NERC Act and/or Schedule 5 of the WCA including, five records of slow worm (*Anguis fragilis*), 94 records of grass snake (*Natrix helvetica*) and common lizard (*Zootoca vivipara*).

Surveys for reptiles were previously undertaken during 2022 by SLR⁶ which recorded common lizard, slow worm and grass snake approximately 120m west of the Site, separated by mature woodland and a stream.

No sightings or evidence of reptiles were recorded during the 2025 update survey. The other neutral grassland habitat present within the Southern Parcel was considered suitable for reptiles with a varied vegetation structure present, high level of sun exposure with multiple potential basking opportunities identified (particularly adjacent to the mixed scrub area), as well as the connection to the woodland and prey abundance for species such as common lizard and slow worm. Although, it is noted that this area has been subject to frequent disturbance as the other residential areas in Heathy Wood have been constructed. Furthermore, the woodland present offered refuge opportunities within tree roots and lying deadwood.

Although a reptile translocation has been undertaken in the past within the surrounding study area for the Site, there are no barriers to species such as grass snake moving back onto the Site, and any legacy populations of reptiles that were not successfully translocated may still be present. Reptiles may be a receptor to the proposed works and have therefore been considered further in this assessment.



3.3.6 Mammals

3.3.6.1 Bats

SBIC returned four records for two species of bat within 2km of the Site. SxBRC returned 90 records of nine species of bat within 2km of the Site which are summarised in Table 3-9.

Table 3-9: Bat Records within 2km of the Site

Species	Records	Protection	Record Centre
Bat sp. (<i>Chiroptera</i>)	2	WCA Sch5, NERC S41	SxBRC
	1		SBIC
Serotine (<i>Eptesicus serotinus</i>)	1	WCA Sch5	SxBRC
Myotis sp. (<i>Myotis sp.</i>)	2	WCA Sch5, NERC S41	SxBRC
Whiskered bat (<i>M. mystacinus</i>) Brandt's bat (<i>M. brandtii</i>)	2	WCA Sch5	SxBRC
Noctule Bat (<i>Nyctalus noctule</i>)	20	WCA Sch5, NERC S41	SxBRC
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	52	WCA Sch5, NERC S41	SxBRC
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	5	WCA Sch5, NERC S41	SxBRC
Long-eared Bat sp. (<i>Plecotus sp.</i>)	1	WCA Sch5, NERC S41	SxBRC
Brown Long-eared Bat (<i>Plecotus auritus</i>)	5	WCA Sch5, NERC S41	SxBRC
	1		SBIC

A search on MAGIC identified a single EPS licence granted for bats within 2km of the Site: EPSM-2013-6382 for the destruction of a resting place for common pipistrelle, soprano pipistrelle, whiskered bat and Brandt's bat between 2013 and 2015 approximately 1.95km north-west.

During the 2025 GLTA, a total of 12 trees were identified from ground level to contain PRF's for bats. Details of trees found to have PRF's for bats are listed in Table 3-10 below. None of the trees assessed as having PRF's for bats were identified within the red-line boundary.

Table 3-10: GLTA Results

Tree Reference	Description	Photo
PRFT1	PRF-I Two cavities where limbs have been lost on the tree, with both cavities south-facing features.	



PRFT2	PRF-I Cavities present and bark stripped on the southern limb of the tree. A possible woodpecker hole also present higher in the tree canopy, but not fully visible from ground level.	
PRFT3	PRF-I A south facing woodpecker hole, a north facing limb with stripped bark and a cavity present from storm damage.	
PRFT4	PRF-I Multiple torn limbs on tree with all cavities facing upwards, reducing shelter from adverse weather conditions and therefore not suitable for roosting bats. A single woodpecker hole was also present facing west which was more suitable.	



PRFT5	PRF-I Stripped bark on the south-eastern limb of the tree providing a potential roost feature for bats.	
PRFT6	PRF-I Lost tree limb due to storm damage resulting in two south-facing cavities being formed.	
PRFT7	PRF-I Potential cavity present within the limb of the tree facing south-west, caused by storm damage. Ivy coverage at the top of the tree may have potentially obscured further PRF's from ground level.	
PRFT8	PRF-I One west facing limb with storm damage resulting in a cavity PRF.	



PRFT9	PRF-I One east facing limb with lifted bark resulting in a PRF.	
PRFT10	PRF-I Thick ivy coverage and one north-eastern limb with storm damage present.	
PRFT11	PRF-I Ivy coverage up to 3m from the ground which could conceal PRF's or act as a PRF itself. Two woodpecker holes on south-eastern face of tree.	



The wider area provides important habitat for local bat populations for roosting, foraging and commuting. The trees outlined in the above table with PRF's for bats are not anticipated to be removed as part of the development. However, there is potential for any light spill from the development to affect the trees particularly those bordering the Site which could impact their foraging and commuting behaviours. As a result of this, bats have been considered further in this assessment.

[REDACTED] [REDACTED]

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[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

SBIC returned two records of otter within 2km of the Site. No signs or evidence of otter was identified during the 2025 update survey. Detailed otter survey results can be found in Appendix F.

Furthermore, scattered trees and overhanging root systems were present along the bank face and bank tops along the watercourse that could potentially offer a place of rest and shelter (holts and couches), but no evidence of occupancy by otter was recorded.

One mammal hole was identified within 10m of the banks which was large enough to house otters but had no indication of a path from the water course to the hole entrance and field signs indicated active use by rabbits as opposed to otter.

The Copthorne site has been subject to various stages of development over the last five years or more, leading to a regularly disturbed environment from both construction and now operational phases of residential development that would deter otter from using the local environment for holts, couches, or lay-ups.

Furthermore, the Site does not provide typically suitable habitat for otter. Although otter may still use the nearby watercourse for commuting purposes, the Site itself remains unsuitable for otter and does not provide any suitable habitat for otter holts, couches, or lay-ups due to the routinely disturbed nature of the Site.

Due to the potential for otter to use nearby connecting watercourses, it is recommended that a precautionary working method statement for otter is produced to ensure that the works do not disturb any otters. This should include a pre-works check of the Survey Area. Appropriate pollution prevention measures during construction and operation should also be included. Therefore, otters have been considered further in this assessment.

3.3.6.4 Water Vole

The desk study returned no records of water vole within 2km of the Site, and no evidence of water vole was identified during the 2025 update survey. Detailed water vole survey results can be found in Appendix F.

The nearby watercourse provided suitable suboptimal habitat for water vole due to the steep side banks of the watercourses for establishment of burrows as well as the surrounding woodland habitat. However, the watercourse is heavily overshadowed by woodland, so a reduction in ground flora variation is likely and therefore reduced the likelihood of food resource availability for water voles. In addition, the presence of construction and residential development in proximity to the watercourse (including dog walkers) reduced the suitability of the watercourse for the species also.

Water vole is considered likely to be absent from the Site but may be present in the nearby watercourse which at its closest, is approximately 10m away. Due to the lack of suitable habitat for water vole on the Site itself and lack of records of water vole returned, water vole has not been considered further in this assessment.

3.3.6.5 Crayfish

SBIC returned no records of crayfish species within 2km of the Site. SxBRC returned one record of white-clawed crayfish within 2km of the Site located approximately 2km SW of the Site in 2022 and four records of signal crayfish with the most recent record from 2017 located approximately 1.6km NW.

No evidence of either species of crayfish was identified during the survey of the watercourse during the 2025 update survey. The eDNA sample following analysis returned a negative result for white-clawed crayfish and signal crayfish. A copy of the eDNA results is provided in Appendix G.

Therefore, crayfish have not been considered further in this assessment.

3.3.6.6 Hazel Dormouse

SBIC returned no records of hazel dormice (*Muscardinus avellanarius*) within 2km of the Site. SxBRC returned five records of dormice within 2km of the Site with the closet record located approximately 1.4km west of the Site in 2014.



A search on MAGIC identified ten EPS licences granted at three locations for dormice within 2km of the Site which is listed within Table 3-11 below.

Table 3-11: EPS Licences Granted for dormice within 2km of the Site

Case Reference No.	Licence Start/End Date	Reason for Impact	Distance/Direction from Site
2017-28947-EPS-MIT	26/05/2017 - 31/12/2022	Impact on, damage to, and the destruction of a breeding site and resting place	0.6km north-west
2017-28947-EPS-MIT-1	26/05/2017 - 31/12/2022	Impact on, damage to, and the destruction of a breeding site and resting place	0.6km north-west
2017-28947-EPS-MIT-2	22/02/2018 - 31/12/2022	Impact on, damage to, and the destruction of a breeding site and resting place	0.6km north-west
2016-25598-EPS-MIT	05/10/2016 - 30/09/2019	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	0.7km west
2016-25598-EPS-MIT-2	18/04/2017 - 30/09/2019	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	0.7km west
2016-25598-EPS-MIT-1	03/02/2017 - 03/02/2017	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	0.7km west
2016-25598-EPS-MIT-3	21/06/2018 - 31/03/2020	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	0.7km west
2016-25598-EPS-MIT-4	29/11/2018 - 31/03/2020	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	0.7km west
2014-3100-EPS-MIT	13/11/2014 - 31/12/2016	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	1.2km south-west
2014-3100-EPS-MIT-1	13/11/2014 - 31/12/2016	Impact to, damage of, and destruction of a breeding site and damage to and destruction of a resting place	1.2km south-west

All licences for dormouse were located on the other side of the M23 which is considered to act as a substantial barrier to the migration of dormouse within the area.

As set out in the Ecological Mitigation and Ecological Enhancement Scheme²⁰ a breeding population of dormice was identified at the wider Copthorne site in 2013, this was further

²⁰ SLR March 2018 *Land West of Copthorne: Ecological Mitigation and Ecological Enhancement Scheme*. Prepared for St Modwen. SLR Ref: 404.03120.00010.



supported by additional surveys undertaken in 2016. The habitat creation scheme for the wider Copthorne scheme was designed to retain the woodland wherever possible and to undertake management to increase the suitability of the Site for dormice in the long term. It is therefore assumed that dormice will still be present within the wider Copthorne site, predominately associated with surrounding areas of woodland. This includes the woodland adjacent to the Site.

The Site has limited areas of suitable habitat for dormice comprising individual trees which are isolated from further suitable habitat for the species, but the woodland may support dormice as they are known to occur on the wider Heathy Wood site. As a result, dormice have been considered further within this assessment.

3.3.6.7 Other Mammal Species

SBIC returned no records of other protected mammals within 2km of the Site. SxBRC returned the following records within 2km of the Site:

- Four records of European hedgehog (*Erinaceus europaeus*), with the nearest record at 0.8km south-east in 2021;
- One record of harvest mouse (*Micromys minutus*) located 1.7km south; and
- One record of brown hare (*Lepus europaeus*) located 1.6km north-west.

All of the above species are listed under Section 41 of the NERC Act.

No signs or evidence of other mammal species were recorded during the 2025 update survey.

European hedgehogs are protected under the WCA (1981), are a priority species under the UK Post-2010 Biodiversity Framework and is classed as Vulnerable on the IUCN Red List for British Mammals and local species of conservation concern. It is also listed on Sussex Local Biodiversity Action Plan. Hedgehogs will temporarily nest in any materials during the summer whilst winter hibernacula are built and utilised for longer. The Site offers very limited foraging and nesting opportunities for hedgehogs but still has the potential to be present. Therefore, hedgehog have been considered further in this assessment.

Harvest mouse is a UK Biodiversity Action Plan Priority species and is listed on the Sussex Local Biodiversity Action Plan. Harvest mice are found in hedgerows, farmland, reedbeds, woodland edges and long tussocky grassland. Although the Site offers some habitat for harvest mouse, given its disturbed nature and isolation from other areas of suitable habitat, it is highly unlikely that the Site is utilised by this species. Therefore, harvest mouse has not been considered further in this assessment.

Brown Hare is a UK Biodiversity Action Plan Priority species and is listed on the Sussex Local Biodiversity Action Plan. Brown hares are found in open farmland, woodland edges, and grassland. Although the Site could offer some suitable habitat for brown hare, its disturbed nature and isolation from other areas of suitable habitat means it is highly unlikely the Site is utilised by this species. Therefore, brown hare has not been considered further in this assessment.

3.4 Summary of Important Ecological Features

Table 3-12 provides a summary of the important ecological features for which detailed assessment is required (i.e., all features of at least Study Area level of importance and/or subject to legal protection), the geographical context within which each is considered important, and their legal status.



Ecological Feature	Scale at which Feature is Important	Comments on Legal Status and/or Importance
Priority Habitat: Deciduous Woodland	County	Priority Habitats listed under Section 41 of the NERC Act (2006).
Invasive non-native plant species: buddleia	Site	Not legislated but as an invasive species, spread must be responsibly controlled by the landowner/developer.
Nesting Birds	Site	WCA (1981) NERC Act Section 41
Bats	Local	Protected under The Conservation of Habitats and Species Regulations 2017 (as amended). Also fully protected under Schedule 5 of the WCA (1981) as amended.
Reptiles	Site	WCA 1981 (Schedule 5 only) and NERC Act Section 41.
Otter	Local	WCA 1981 (as amended) and Conservation of Habitats and Species Regulations 2017.
Dormouse	Local	Protected under The Conservation of Habitats and Species Regulations 2017 (as amended). Also fully protected under Schedule 5 of the WCA 1981 (as amended).
Other Mammals: hedgehog	Site	Protected under Schedule 6 of the WCA 1981.

3.5 Biodiversity Net Gain (BNG)

4.0 Impacts

4.1 Construction Phase Impacts

The following impacts are predicted for the Construction Phase:

- Loss of habitat during vegetation clearance;
- Increase in noise disturbance during construction; and
- Increase in visual disturbance during construction.

4.2 Operation Phase Impacts

Operational Phase impacts are considered to be once the residential development has occurred and the landscaping has been completed.

The baseline sound levels at the Southern Site at Worsell Drive, were considered to be of 'low noise risk' both during the daytime and night-time. The baseline sound levels at the Northern Site close to Worsell Drive, were considered to fall into the 'medium noise risk' category, both during the daytime and night-time. The Noise Impact Assessment²¹ demonstrates that the proposed development will give rise to rating sound levels that are at or below the measured background sound level in the area, at the assessed residential receptors.

Given evolving guidelines and the challenges of controlling lighting in residential areas, a lighting lux plan, alongside a wildlife-friendly lighting strategy has been produced. Details of the lighting scheme for the Southern land parcel has been incorporated into the scheme lighting plan (see Stantec Land West of Copthorne Southern Plot: Lighting Plan Drawing no: 24205/2045/1300). This has included a careful assessment of where to install lighting, the type of lighting used and the direction of any light spill. It is noted on the lighting drawing which lights have the potential to have a light spill into either the woodland or the buffer between the woodland and the development plot and therefore these will have light shields fitted (such as baffles) to minimise the risk of any light spill.

4.3 Potential Impacts Scoped Out

The following common impact is considered scoped out within this assessment:

- Increase in traffic – The Transport Statement as prepared by Stantec demonstrated that there will be a reduction in the number of trips during the AM peak hours (08:00 – 09:00) with a minimal increase in trips during the PM peak hour (17:00 – 18:00) in comparison to the outline consent for a GP Surgery and a primary school. The assessment also considered that there is likely to be a reduction in trips during the afternoon, as there would not be a primary school pick up in the afternoon. Therefore, an increase in traffic has been scoped out of the assessment.

²¹ Stantec UK Limited December 2025 *Land Parcels off Worsell Drive, Copthorne – Noise Impact Assessment*.



4.4 Good Practice Measures

4.4.1 Good Practice Mitigation Measures

The following measures will be implemented prior to and/or during the construction phase for the proposed development:

- Toolbox talks to all Site staff, e.g., an ecological induction, so staff are aware of the ecological sensitivities on the Site and the legal implications of not complying with agreed working practices;
- During construction, environmental and pollution control measures employed will have regard to current best practice guidance such as, but not limited to, the following:
 - CIRIA C532, 'Control of water pollution from construction sites: guidance for consultants and contractors' (2001); and
 - CIRIA C741, 'Environmental good practice on site guide' (2015 4th Ed.), to prevent dust and other pollutant emissions;
- Materials stockpiles will be protected from wind to control dust;
- Regular monitoring and inspection of construction activities by Environmental Clerk of Works (EnvCoW) to ensure compliance with environmental regulations and standards;
- Establishment of appropriate containment measures to prevent any accidental spillage or leakage of pollutants;
- Erecting of barriers with noise dampening features to reduce the impact of noise pollution on the surrounding area;
- Ensuring that construction personnel are trained on proper handling and disposal of potential pollutants to minimize environmental impact; and
- Prior to construction commencement, an Ecological Management Plan will be developed, offering additional insights into construction methods and ecological mitigation strategies.



5.0 Assessment of Effects and Mitigation Measures

The following design principles and “designed-in” mitigation have informed the assessment of impacts.

- Within the design of the proposal good practice environmental and pollution control measures are employed with regard to current best practice guidance such as, but not limited to, the following:
 - CIRIA C532, ‘Control of water pollution from construction sites: guidance for consultants and contractors’ (2001).
 - CIRIA C741, ‘Environmental good practice on site guide’ (2015 4th Ed.).
- Landscaping measures are proposed within the design of the development to minimise loss of biodiversity on-site.

Taking the above into account, the principal potential impacts of the proposed development are outlined in the following sections.

5.1 Priority Habitat

5.1.1 Potential Impacts

Much of the mature woodland in the locality and surrounding the Southern Parcel to the north and west is identified as Ancient Semi-Natural Woodland on the Ancient Woodland Inventory. All the Priority Habitat deciduous woodland will be retained and/or enhanced. However, there remains the potential for indirect impacts through pollution from the construction phase and increased footfall from the residents during the operational phase causing damage to the ground flora.

5.1.2 Proposed Mitigation Measures

The principal avoidance and mitigation measures are incorporated into the design process and therefore no loss of woodland habitat is proposed. A buffer of 15m from the ancient woodland has been included within the design.

A Biodiversity Net Gain metric and report have been created alongside this report to highlight the creation and enhancement of habitats on peripheral retained land within the ancient woodland buffer.

A Root Protection Area (RPA) has been established around the woodland boundary as per standard BS:8537. The RPA will be protected in line with the Arboricultural Method Statement. The size of the RPA for the woodland is defined in the arboricultural report²³ produced in relation to this application. The development will occur outside of the RPA.

A dust pollution prevention plan will be designed and implemented within the Site during the construction phase of the works to prevent dust pollution impacts upon the suitable neighbouring woodland habitat. Fencing will be installed to prevent people and vehicles moving into the habitat during construction.

Post development, the proposed landscaping scheme involves increased planting between the development area and the woodland to provide an increased buffer between the housing and the Ancient Woodland (see details on the Soft Landscape Plan and the accompanying Planting Schedules). The type of planting recommended has been chosen to assist in

²³ SLR Consulting (2025). Land Parcels adjacent to Worsell Drive, Copthorne – AIA And AMS



providing a physical barrier between the new residential development of the woodland. This will assist in limiting public access to the available woodland paths.

5.1.3 Significance of Residual Effects

None

5.2 Non-Native Invasive Plant Species

5.2.1 Potential Impacts

Potential for indirect spread of the non-invasive buddleia plant located in the north-eastern region of the watercourse by construction activities within or close to this area. Spread could particularly occur onto Site if construction materials are stored in proximity to the area where buddleia occurs and if accidental spread occurs during its removal on site and if disposed of irresponsibly.

5.2.2 Mitigation Measures

Although buddleia is not listed under legislation in the UK, as an invasive species to the UK, it should be responsibly controlled, and its accidental spread should be minimised during its removal from site.

Biosecurity measures must be followed at the commencement of works and during the construction phase to prevent potential spread of the plant onto and surrounding the Site. Once removed, it should be disposed of responsibly to prevent its spread.

5.2.3 Significance of Residual Effects

None

5.3 Protected Species

5.3.1 Nesting Birds

5.3.1.1 Potential Impacts

The onsite and offsite habitats provide suitable nesting and foraging areas for a variety of bird species. Habitat loss or disturbance due to construction activities could result in the displacement of nesting birds, particularly if the construction occurs during the breeding season.

5.3.1.2 Mitigation Measures

The nests of wild birds, regardless of how common the species are, are protected under the Wildlife and Countryside Act 1981 (as amended) whilst they are occupied or being built.

Such works can be timed to avoid the nesting season (March to August) to avoid the direct impact. For situations where this is not possible i.e. if this conflicts with other ecological mitigation timings for example, then a check for any active nests would need to be undertaken prior to removal taking place.

The landscaping strategy includes the planting of a variety of habitats whose management would fall within a Habitat Management and Monitoring Plan (HMMP) and therefore would be retained and managed for a minimum of 30 years. Full planting details are available on the Soft Landscape Drawings and accompanying Planting Schedule. The types of landscaping proposed includes the following:



- Northern Plot – standard trees; beech hedge and a native hedgerow. In addition, there will be areas of street planting including ferns, shrubs, bulbs, and herbaceous species; and
- Southern Plot – standard trees, woodland planting (trees, shrubs, and climbing honeysuckle), woodland edge planting (shrubs, herbaceous, wildflower, and bulb species), street planting (including ferns, shrubs, bulbs, and herbaceous species), wildflower areas, and species rich lawns.

Once mature, these will offer a range of opportunities for bird species including nesting and foraging.

5.3.1.3 Significance of Residual Effects

None

5.3.2 Bats

5.3.2.1 Potential Impacts

The proposed development may impact important bat habitats, particularly those providing foraging and commuting opportunities, such as along the Southern Parcels boundaries adjacent to the woodland.

The adjacent woodland, to the Southern Parcel, may directly affect bat populations if roosts are close to the woodland boundary, but these can be minimised by controlling pollution and lighting during construction.

5.3.2.2 Mitigation Measures

No bat roosts or potential roosts are in the anticipated impacted areas, and Site boundaries where bats may forage and commute will be preserved. Overall, minimal impacts are expected, and no significant effects on bats are anticipated during construction.

Given evolving guidelines and the challenges of controlling lighting in residential areas, a lighting lux plan, alongside a wildlife-friendly lighting strategy has been produced. Details of the lighting scheme for the Southern land parcel has been incorporated into the scheme lighting plan (see Stantec Land West of Copthorne Southern Plot: Lighting Plan Drawing no: 24205/2045/1300). This has included a careful assessment of where to install lighting, the type of lighting used and the direction of any light spill. It is noted on the lighting drawing which lights have the potential to have a light spill into either the woodland or the buffer between the woodland and the development plot and therefore these will have light shields fitted (such as baffles) to minimise the risk of any light spill. It is therefore considered that the development would not lead to an increased risk of light spill into the woodland and buffer which could impact the ability of bats to forage or commute through this area.

To enhance bat habitats, the landscape planting scheme has been designed to incorporate a denser buffer between the edge of the woodland to the north and west of the southern parcel. These measures will improve foraging and commuting corridors as the habitat matures. While no significant impacts on bat populations are predicted, the habitat creation proposals aim to improve connectivity both within the Site and across the surrounding landscape, benefiting all bat species in the area.

If plans change and the woodland habitat is likely to be affected by construction activities, further ecological surveys may have to be conducted to ensure appropriate mitigation measures are in place.



5.3.2.3 Significance of Residual Effects

None

5.3.3 Reptiles

5.3.3.1 Potential Impacts

Surveys for reptiles have been undertaken during 2022 by SLR within the wider area⁶. It recorded common lizard, slow worm, and grass snake in habitat near to the Site. It is considered that this report provides background context and confirms that the species of reptiles translocated to habitat on the west of the stream as part of the initial works at Heathy Wood are still present. Although separated by mature woodland and a stream, the Site could support occasional reptiles from this known local population. However, the Site is unlikely to be key for the population due to the disturbed nature the Site and lack of variation in the vegetation structures in much of the habitats present. Therefore, there is a low risk of killing or injury to reptiles.

Given that the grasslands to the south-east of the Southern Parcel are routinely managed to a short sward through mowing, it is unlikely to provide suitable habitat for reptiles. However, the grassland to the north-west of the Southern Parcel is currently unmanaged and suitable with potential basking spots present.

5.3.3.2 Proposed Mitigation Measures

Given the suitable habitat and proximity to woodland and previously known population, the likelihood of encountering reptiles during preparation works is high. Therefore, the following mitigation measures should be implemented to avoid disturbance:

- **Timing of Works:** Schedule vegetation clearance works outside critical periods like the hibernation (November–February) and breeding seasons (spring);
- **Vegetation Clearance:** Provide a toolbox talk to contractors, followed by a two-phased clearance of vegetation in reptile-supporting areas under supervision of the Ecological Clerk of Works (ECoW); and
- **Log and Scrub Piles:** Dismantle any remaining piles by hand, avoiding disturbance during the hibernation period (November–February) or when temperatures are below 10°C.

5.3.3.3 Significance of Residual Effects

None





5.3.5 Otter

5.3.5.1 Potential Impacts

Although no direct otter evidence was identified during the survey within and around the surveyed watercourses, otters could be utilising surrounding connecting watercourses. It was determined during the survey that otter could utilise the adjacent watercourse for commuting and foraging purposes. As a result, otters could be indirectly impacted by pollution run-off from the works into the watercourse.

5.3.5.2 Proposed Mitigation Measures

A pre-works check should be carried out by a suitably qualified ecologist to re-survey the watercourse for any evidence of otters/ presence of otters before works commence. This will ensure that no otters are killed or injured as a result of construction works.

A precautionary working method statement should be produced by an ecologist and provided to those working on the Site which outlines measures to limit disturbance to otters potentially utilising the surrounding watercourses, including instructions on minimising pollution run off during construction.

Prior to commencement of construction, fencing should be installed between the Site and watercourse to minimise the risk of workers, vehicles and storage of equipment entering the watercourse. Fencing should be clearly marked to inform site operatives. Dust suppression



techniques should also be used to minimise dust entering the watercourse and immediate clean-up of any spills must be undertaken to prevent any spills entering the water.

5.3.5.3 Significance of Residual Effects

None.

5.3.6 Dormouse

5.3.6.1 Potential Impacts

The desk study and survey observations suggest that the presence of hazel dormice within the Site is unlikely. However, the species is highly likely to be present within the immediately adjacent woodland habitat, as was found when the Heathy Wood site obtained outline planning permission (Planning reference: 13/04127/OUT (and subsequently amended)).

Further woodland habitats which support dormice could be indirectly impacted during construction from pollution (including but not limited to noise, vibration, and light pollution).

Additionally, upon completion of the proposed development, the residential area may indirectly impact dormouse populations due to the potential presence of domestic cats. As obligate carnivores, domestic cats are natural predators and given that the proposed development is situated near to suitable dormouse habitat, there is a significant likelihood that cats will access these areas and pose a predation risk to dormice. The proximity of residential areas to critical dormouse habitats increases the probability of cat incursions into woodland environments, potentially leading to increased mortality rates in dormouse populations.

5.3.6.2 Proposed Mitigation Measures

Dormouse is fully protected under the Conservation of Habitat and Species Regulations 2017 (as amended), and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

During the construction phase of works, impacts will be minimised by the retention of woodland and incorporation of an ancient woodland buffer zone of approximately 15m which will be fenced during the construction to minimise the risk of people or vehicles accessing the area.

Mitigating the potential negative impacts of the housing development, particularly when cats are involved, on dormice populations requires a carefully considered approach. Dormice, being small, arboreal mammals, are vulnerable to predation by domestic cats, especially when habitats are fragmented or disturbed by construction.

The landscape design has been carefully designed to increase the size of the buffer between the development and the woodland which supports dormice. This includes a variety of species, some of which could be used by dormice for foraging. A total of an additional 25 dormouse nest boxes will be incorporated into the wider development area. The area chosen is within the ancient woodland along Burstow Stream, and further north within the land close to the consented allotments (approx. grid reference: TQ304395). The actual locations will be determined on site during their installation.

The following mitigation strategies have been incorporated into the development to assist in protecting dormice:

- Habitat Protection and Connectivity: Create green corridors and buffer zones for safe dormouse movement, minimising the risk of cat exposure;
- Enhance Habitats: Install nest boxes, plant native trees, and improve vegetation to support dormice;



- Community Engagement: Educate residents on dormice conservation and responsible pet ownership; and
- Development Design: Use landscaping to deter cats and integrate wildlife-friendly features.

By combining these mitigation strategies, developers and communities can minimise the risks posed to dormice by the presence of domestic cats, while also promoting responsible pet ownership and wildlife conservation.

5.3.6.3 Significance of Residual Effects

Even with the mitigation outlined above, there remains potential for long-term small residual impacts upon the hazel dormouse population from predation by cats.

5.3.7 Other Mammals

5.3.7.1 Potential Impacts

The Site has limited potential habitat for hedgehog. However, construction works incur the direct loss of and/or damage of this suitable habitat. Should such species be present, the works could impact the species by disturbance and/or destruction or damage to resting sites potentially resulting in reckless injury or killing of such species.

5.3.7.2 Proposed Mitigation Measures

Likelihood of such impacts should be reduced through implementation of a suitable reasonable avoidance measures mitigation plan during the construction phase of the works. Measures to be included within the plan should include avoidance of vegetation clearance of more dense areas during the winter months when hedgehogs would be hibernating, and visual checks for potential nests of any dense vegetation to be cleared prior to clearance.

There is potential to further enhance habitat for such species by the creation of further suitable habitat such as hedgerows and urban green areas within the Site. In addition, inclusion of suitable 'hedgehog highways' within any fences present and around the boundary of Site would allow access for the species to further potentially suitable habitat within the residential gardens.

5.3.7.3 Significance of Residual Effects

None.

5.4 Biodiversity Enhancements

A variety of measures are outlined below and will be incorporated into the scheme:

- Provision of additional opportunities for nesting and roosting by birds and bats through the landscape planting scheme, once the habitats are mature;
- The landscape scheme, as it matures will provide additional opportunities for hedgehogs and insects, should they be present;
- Using native species in the landscaping;
- Providing high quality opportunities for pollinators; and
- Compensation for permanent loss of habitats of limited intrinsic ecological value; which provides an enhancement opportunity to include planting/creation of higher biodiversity value with habitat type, quality, and extent, as appropriate.



5.5 Cumulative Effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. However, in this instance, local habitats proposed to be lost have been accounted for as part of the application for the wider Copthorne Site.

5.6 Summary of Effects

A summary of potential impacts, proposed mitigation, residual effects and, where relevant, proposed compensation measures is provided for each important ecological feature included in the assessment in Table 5-1. Table 5-1 also includes a summary of proposed biodiversity enhancements.



Table 5-1: Summary of Potential Impacts, Proposed Mitigation, Residual Effects

Ecological Feature	Potential Impacts	Proposed Mitigation and Enhancement	Means of Delivering Mitigation	Residual Effects
Deciduous woodlands	Indirect pollution impacts during construction. Damage to habitats and species from increased footfall during operational phase.	Dust suppression measures will be employed during construction, and fencing will be erected around root protection zones. Post development landscaping will form physical barriers between the woodland and the development to limit footfall to the woodland paths.	CEMP LEMP Biodiversity Net Gain commitment	None
Non-native invasive plant species: Buddleia	Indirect spread of the invasive plant species onto Site or other surrounding areas.	Biosecurity measures will be employed at the commencement of works to ensure all site workers are aware of the plants presence. No storage of materials or use of machinery will be permitted in proximity to the plant prior to its removal. Removal and disposal of the plant will be carefully managed and controlled to avoid spreading the plant into and surrounding the Site.	CEMP INNS Method Statement	None
Breeding birds	Potential loss and damage of suitable nesting habitat. Potential injury, killing of individuals and/or damage or destruction of nests.	Nesting bird checks of any suitable habitat to be potentially damaged or disturbed within the bird nesting season. Provision of new woodland and creation/enhancement of other neutral grassland will provide additional suitable habitat for nesting birds.	ECoW supervision CEMP LEMP	None
Reptiles	Potential injury, killing of reptiles.	Phased clearance of surface vegetation under supervision of an ecologist to ensure no reptiles are harmed. Creation of new other neutral grassland areas and enhancement of other areas of grassland will provide opportunities for reptiles.	Reasonable Avoidance Method Statement for reptiles ECoW supervision CEMP	None



Ecological Feature	Potential Impacts	Proposed Mitigation and Enhancement	Means of Delivering Mitigation	Residual Effects
Otter	Potential disturbance to otter using the adjacent watercourse for commuting and foraging.	Pre-construction survey for otter within the adjacent watercourse to ensure otter remain absent and to ensure no otters are injured during construction. Protective fencing will be erected and clearly marked between the watercourse and the Site in which no machinery or materials should be stored. Dust suppression techniques to minimise dust entering the watercourse and immediate clean-up of any spills to prevent any spills entering the water.	Pre-works check Precautionary Working Method Statement CEMP	None
Bats	Potential disturbance to suitable commuting, foraging, and bat roosting habitats along the Southern Parcels boundaries.	Protective fencing will be erected around root protection zones within which no machinery or materials should be stored. Nocturnal site construction activities using lighting should be avoided. Provision of new woodland which will act as a buffer between the Southern Parcel and the existing woodland areas. Creation / enhancement of other neutral grassland will provide additional suitable habitat for foraging and roosting bats when mature.	CEMP LEMP Wildlife friendly lighting plan	None



Ecological Feature	Potential Impacts	Proposed Mitigation and Enhancement	Means of Delivering Mitigation	Residual Effects
Hazel dormouse	Potential disturbance of dormice and nests within nearby woodland. Indirect impact to woodland habitats through pollution, increased footfall, and potential predation from cats.	Retention of all suitable habitat likely to support dormice as part of designs. In addition to the creation of green corridors to enable safe dormouse movement. Planting of native trees. Education of residents on dormice conservation and responsible pet ownership. Provision of new native woodland areas which will act as a buffer between the Southern Parcel and the existing woodland areas. Erection of 25 nest boxes within the wider development area.	ECoW supervision CEMP	Potential small-scale and long-term impact from predation by cats.
Other mammals: hedgehog	Indirect pollution and impact to habitats and species. Loss of, and damage to grassland habitat.	Provision of new woodland and creation / enhancement of other neutral grassland will provide additional suitable habitat for these species. Inclusion of hedgehog highways in fences to allow free movement of the species between (potentially) suitable habitat within gardens.	ECoW supervision CEMP LEMP	None



6.0 Biodiversity Net Gain

A biodiversity net gain assessment using the Statutory Biodiversity Metric has been undertaken and should be reviewed in conjunction with this report. This assessment has determined that off-site units will be required.



7.0 Conclusions

SLR was instructed to undertake an updated EclA for Miller Homes in respect to the proposed housing development of two parcels of land adjacent to Worsell Drive, located within the wider Copthorne site.

An assessment of the significance of predicted ecological impacts that would result from the proposed development scheme has been undertaken following current CIEEM guidance.

An updated UKHab survey, and assessment of any evidence of protected species or potential for such species, was initially undertaken on the 29th of August 2025 by two ecologists from SLR. In addition, a desk study assessment was completed which included local records obtained from SxBRC and SBIC and review of freely available data within 2km of the Site using MAGIC.

No statutory ecological designated areas are located within the Site and whilst statutory and non-statutory sites are located within 2km, none are anticipated to be impacted upon by the works due to their distance from the Site, lack of hydrological connectivity, and expanses of built environment between.

Both parcels of land within the Site are in proximity to priority habitats: ancient and broadleaved woodland. The Southern Parcel is immediately adjacent to the habitats. These habitats, however, are proposed to be retained, with 15m ancient woodland buffers and Root Protection Areas in place as part of the designs. The proposal would result in the removal of land dominated by other neutral and modified grassland, which is of relatively low biodiversity value.

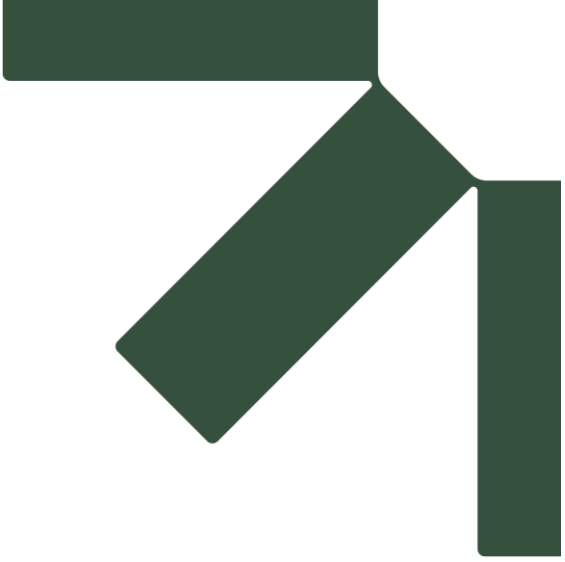
The Site and locally surrounding area has potential to support a range of protected species, with Site habitats and adjacent habitats being of particular importance for breeding birds, reptiles, bats, [REDACTED] otter, dormouse, hedgehogs and non-native invasive plant species. However, through appropriate mitigation outlined within this report, any residual impacts are minimal, with only one impact being potentially ecologically significant: predation of the known hazel dormouse population by cats.

Timing restrictions and precautionary working methods outlined within this report, will address any predicted impacts to protected species during works, with habitat creation measures enhancing the Site for wildlife.

This project aims to deliver an increase in habitat biodiversity value by securing 10% biodiversity gain through off-site enhancements. This will satisfy the current requirement for biodiversity enhancement under the National Planning Policy Framework and the future ambition set out within the Environment Act.

Overall, no likely significant adverse ecological impacts have been predicted, and it is considered that proposals will provide a gain for biodiversity following completion of construction and restoration activities which ensures compliance with nature conservation policies at local and national level requirement.





Appendix A Relevant Legislation and Planning Policy

Ecological Impact Assessment (EclA)

Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

SLR Project No.: 404.064550.00005

28 November 2025

Legislation

A summary of legislation relevant to (onshore) biodiversity in England is provided below. Note that the summary provided here is intended for general guidance only and the original legislation should be consulted for definitive information.

Environment Act (2021)

The Environment Act has wide ranging provisions including those around:

- Environmental governance;
- Environmental regulation;
- Waste and resource efficiency;
- Air quality and environmental recall;
- Water;
- Nature and biodiversity;
- Conservation covenants.

Of particular relevance is Part 6 of the Act which introduces “biodiversity gain in planning” and will apply in England to planning applications under the Town & Countryside Act and the Planning Act. Schedule 14 now requires that biodiversity gain be a condition of planning permission in England. These changes will be enacted through subsequent secondary legislation or regulations. This part of the Act also changes the responsibilities that Government or public bodies have by strengthening the existing NERC Act biodiversity duty. Public authorities are now required to seek to conserve and enhance biodiversity in the exercise of their functions.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives) into national law. Changes were made by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to the 2017 Regulations so that they operate effectively. Most of these changes involved transferring functions from the European Commission to make changes to the appropriate authorities in England. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. Though they are described as the ‘Onshore’ regulations, they cover coastal waters out to 12 nautical miles (nm).

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The 2019 Regulations have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:

- existing SACs and SPAs
- new SACs and SPAs designated under these Regulations

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.



Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb²⁴ wild animals listed under Schedule 2 of the Regulations as well as damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). Sites which are part of the National Site Network, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), are also protected under the Habitat Regulations, and any proposal that could affect them will require a Habitats Regulations Assessment (HRA).

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Part 3 of the regulations provide for the protection of areas of habitats or species where maintenance of the status of water is an important factor. Under the regulations additional consideration may need to be given to sites in the form of a Water Framework Directive (WFD) assessment where a project lies in proximity to a water body or to linked water bodies which could be affected. This includes consideration of whether water bodies are WFD receptors in particular those of high status or have high status morphology.

Natural Environment & Rural Communities (NERC) Act 2006

Section 40 of the NERC Act 2006 places a duty on public authorities to have regard to the purpose of conserving biodiversity in the exercise of their functions. Public authorities include government departments, local authorities and statutory undertakers.

Section 41 of the Act (Section 42 in Wales) requires the publication of a list of habitats and species publish which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

Note that Sections 40 and 42 were superseded in Wales by the Environment (Wales) Act 2016 (see below).

Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;

²⁴ Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.



- intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act; or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act.

Planning Policy

A summary of national planning policy relevant to (onshore) biodiversity in England is provided below. Note that the summary provided here is intended for general guidance only and the original policy documents should be consulted for definitive information. For local planning policy relevant to biodiversity the relevant local plans should be consulted.

National Planning Policy Framework December 2024 (England)

The National Planning Policy Framework (NPPF)²⁵ sets out guidance for local planning authorities and decision-makers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/052, the broad policy objectives in relation to the protection of biodiversity and geological conservation in England through the planning system are set out. Specific policies relating to habitats and biodiversity are set out in paragraphs 187 to 195 of the NPPF.

Conserving and enhancing the natural environment

Paragraph 187 states that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

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

²⁵ Ministry of Housing, Communities & Local Government (December 2024).
<https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>



f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate”.

Habitats and biodiversity

Paragraph 192 states that:

“To protect and enhance biodiversity and geodiversity, plans should:

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

Paragraph 193 of the NPPF states that:

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

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

Paragraphs 194 - 195 relate to the National Sites Network (referred to as habitats sites) and state:

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

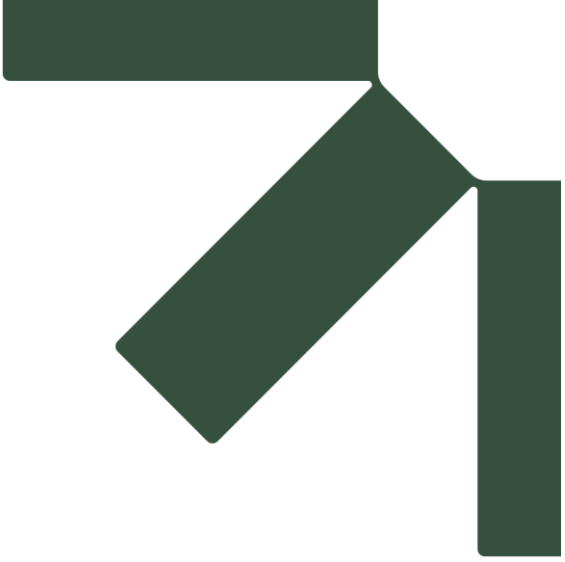
- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation,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

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.”





Appendix B UKHabitat (UKHab) Classification Plan

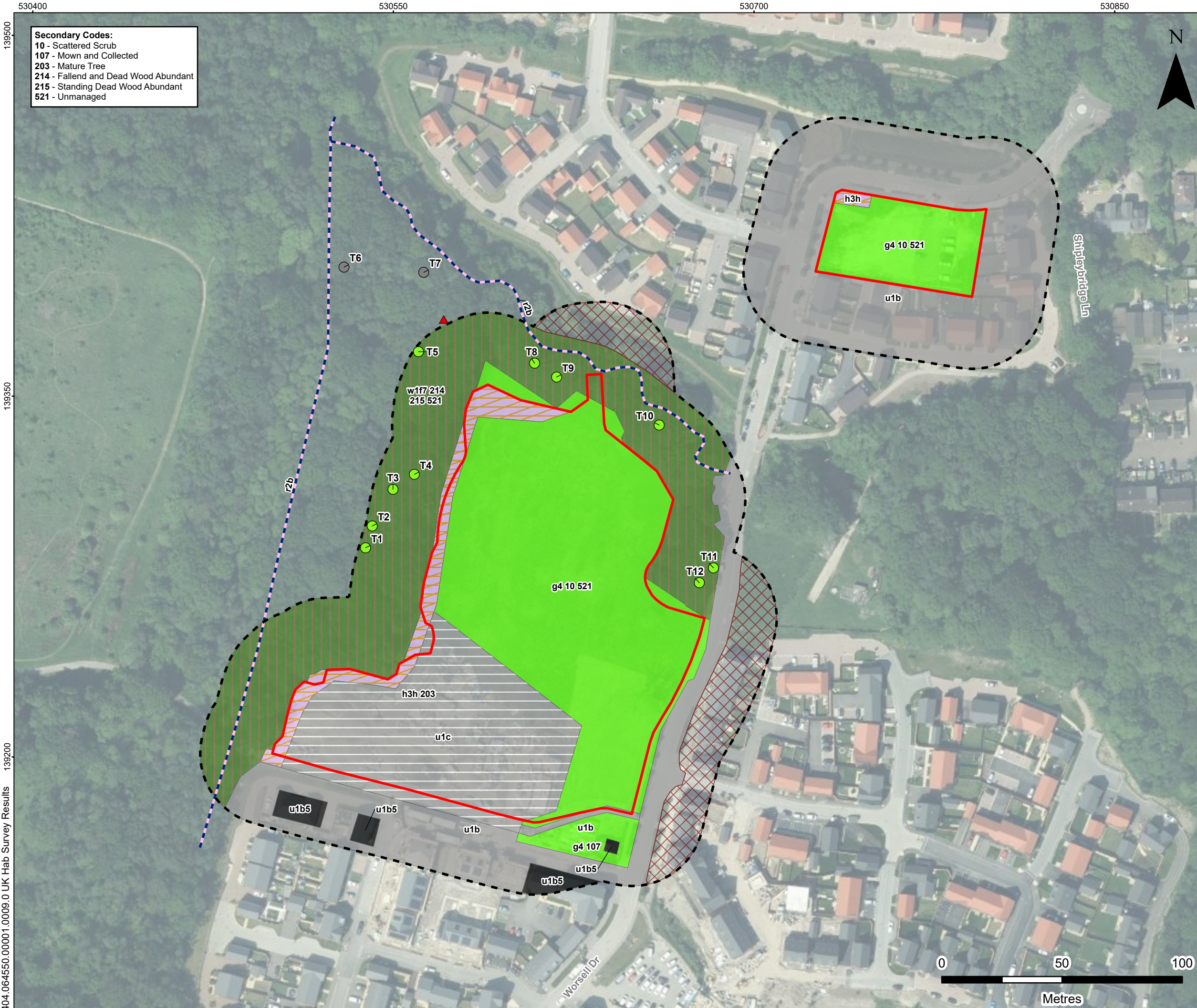
Ecological Impact Assessment (EcIA)

Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

SLR Project No.: 404.064550.00005

28 November 2025



Secondary Codes:
10 - Scattered Scrub
107 - Mown and Collected
203 - Mature Tree
214 - Fallend and Dead Wood Abundant
215 - Standing Dead Wood Abundant
521 - Unmanaged

LEGEND

Site Boundary

Site Boundary 30 m Buffer

Area Not Included in Study

Invasive Non-native Species

Ground Level Tree Assessment

PRF (Potential Bat Roost Feature)

NONE

Primary Habitat Classification

Rivers and Lakes - Rivers and Streams

r2b - Other Rivers and Streams

Grassland - Modified Grassland

g4 - Modified Grassland

Heathland and Shrub - Dense Scrub

h3h - Mixed Scrub

Urban - Built-up Areas and Gardens

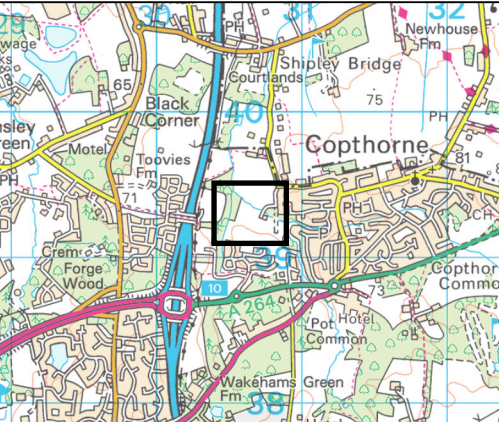
u1b - Developed Land; Sealed Surface

u1b5 - Building

u1c - Artificial Unvegetated, Unsealed Surface

Woodland and Forest - Broadleaved Mixed and Yew Woodland

w1f7 - Other Lowland Mixed Deciduous Woodland



COPTHORNE OPTIMISATION APP.

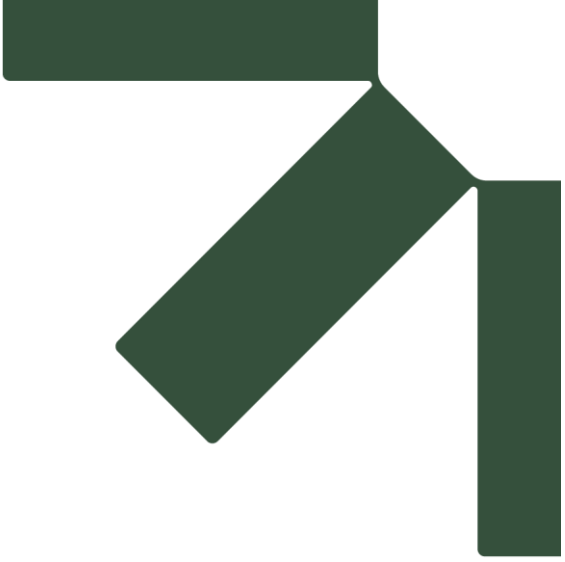
ECOLOGICAL IMPACT
ASSESSMENT

UK HABITAT SURVEY RESULTS

FIGURE 1

Scale
1:1,500 @ A3

Date
SEPTEMBER 2025



Appendix C Biodiversity Net Gain (BNG) Report

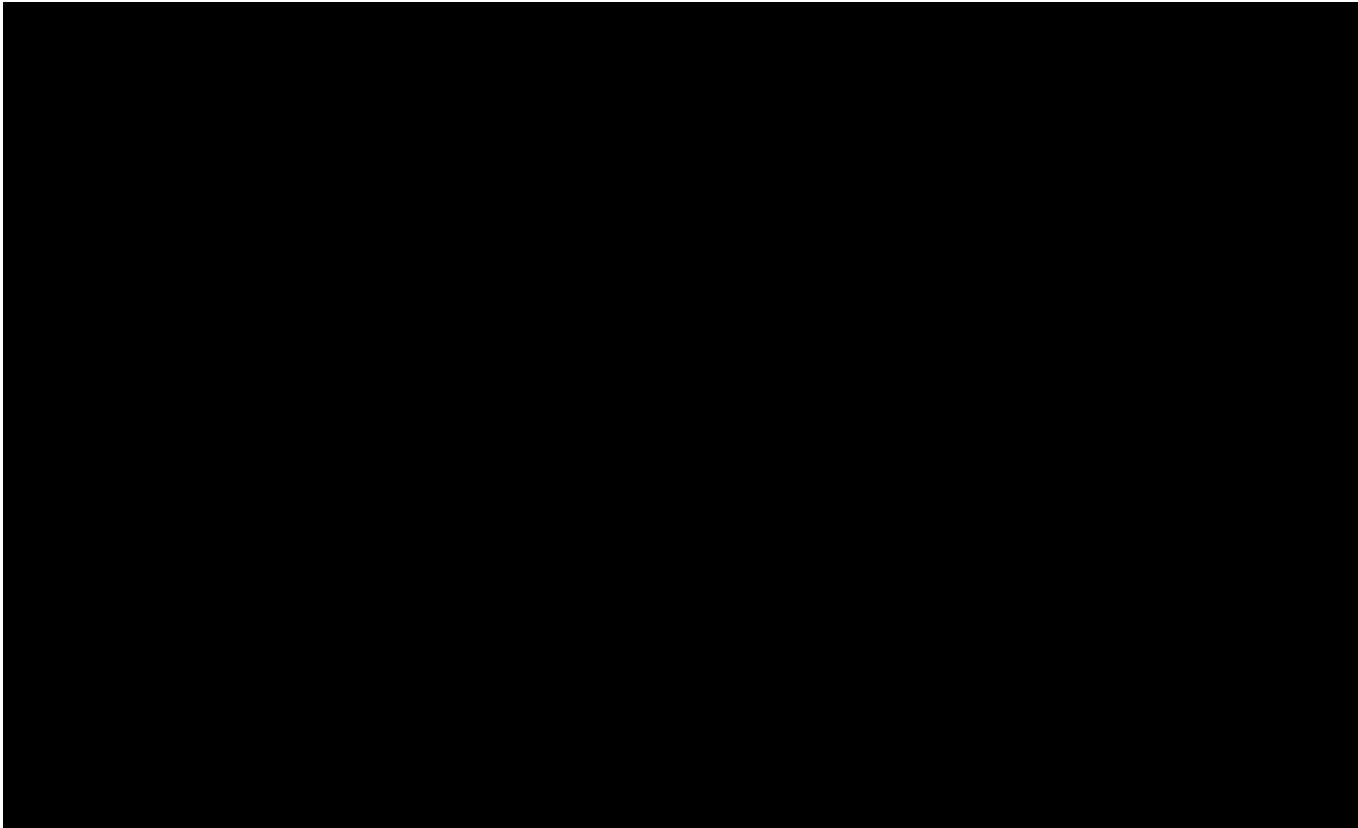
Ecological Impact Assessment (EclA)

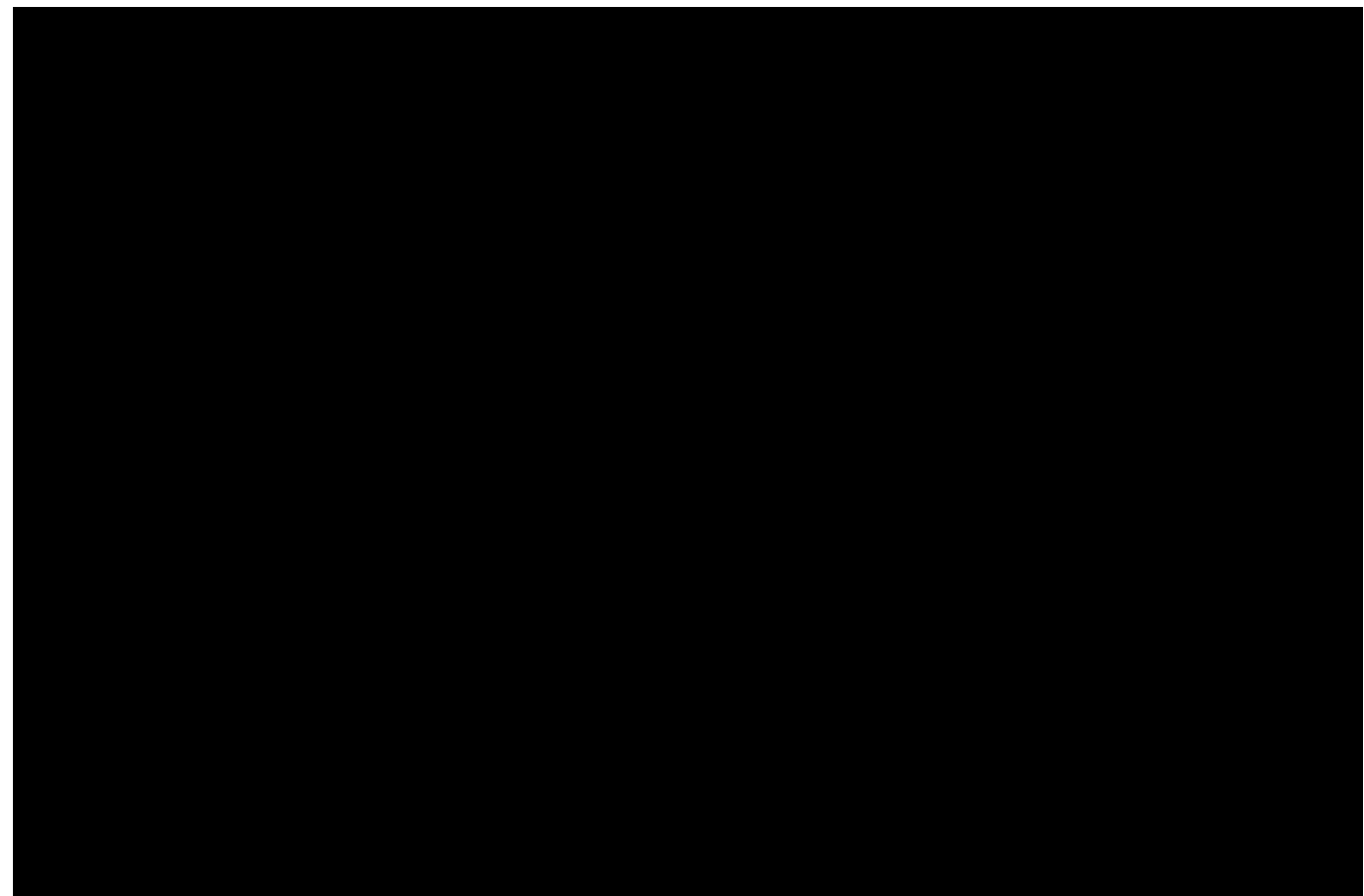
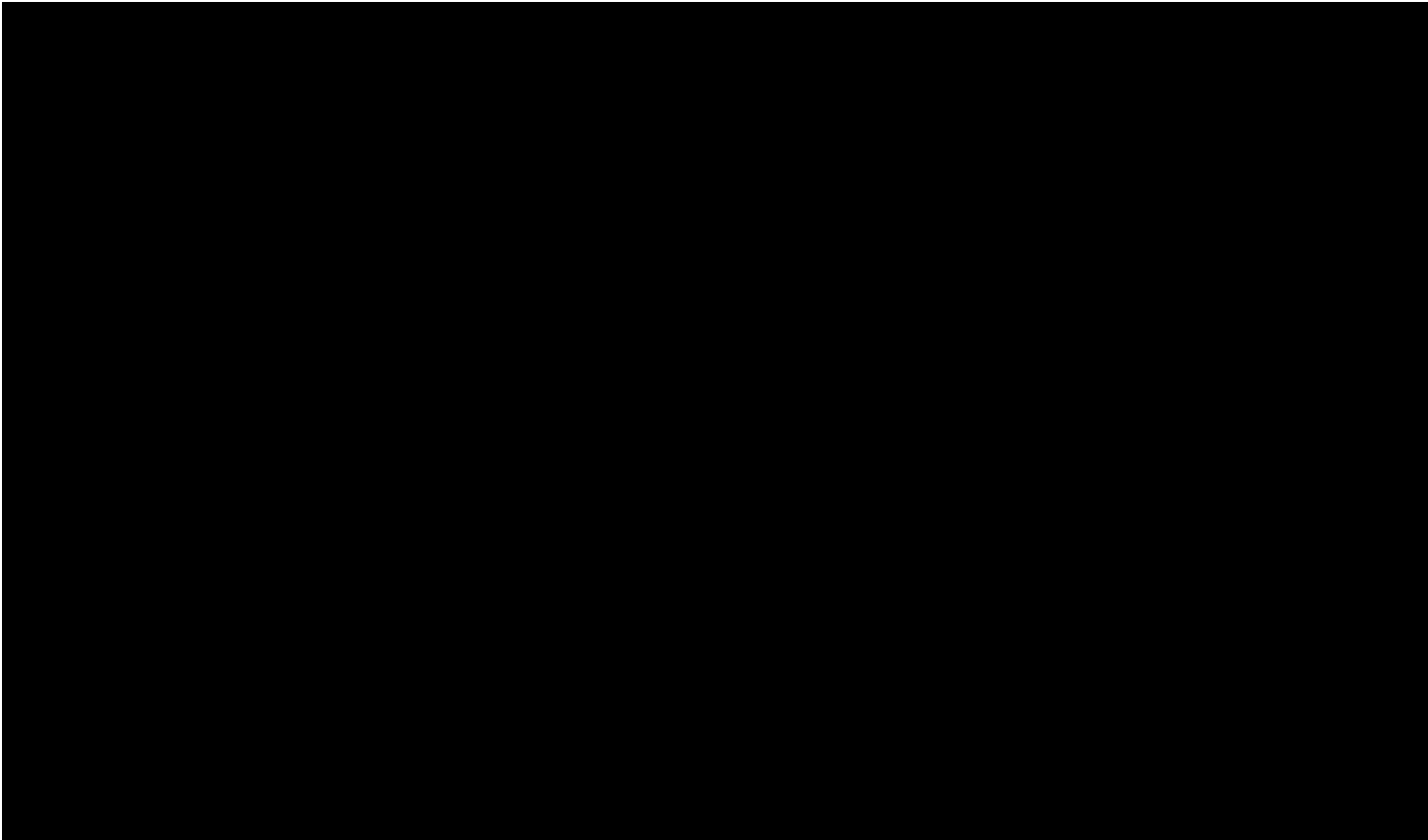
Land Parcels adjacent to Worsell Drive, Copthorne

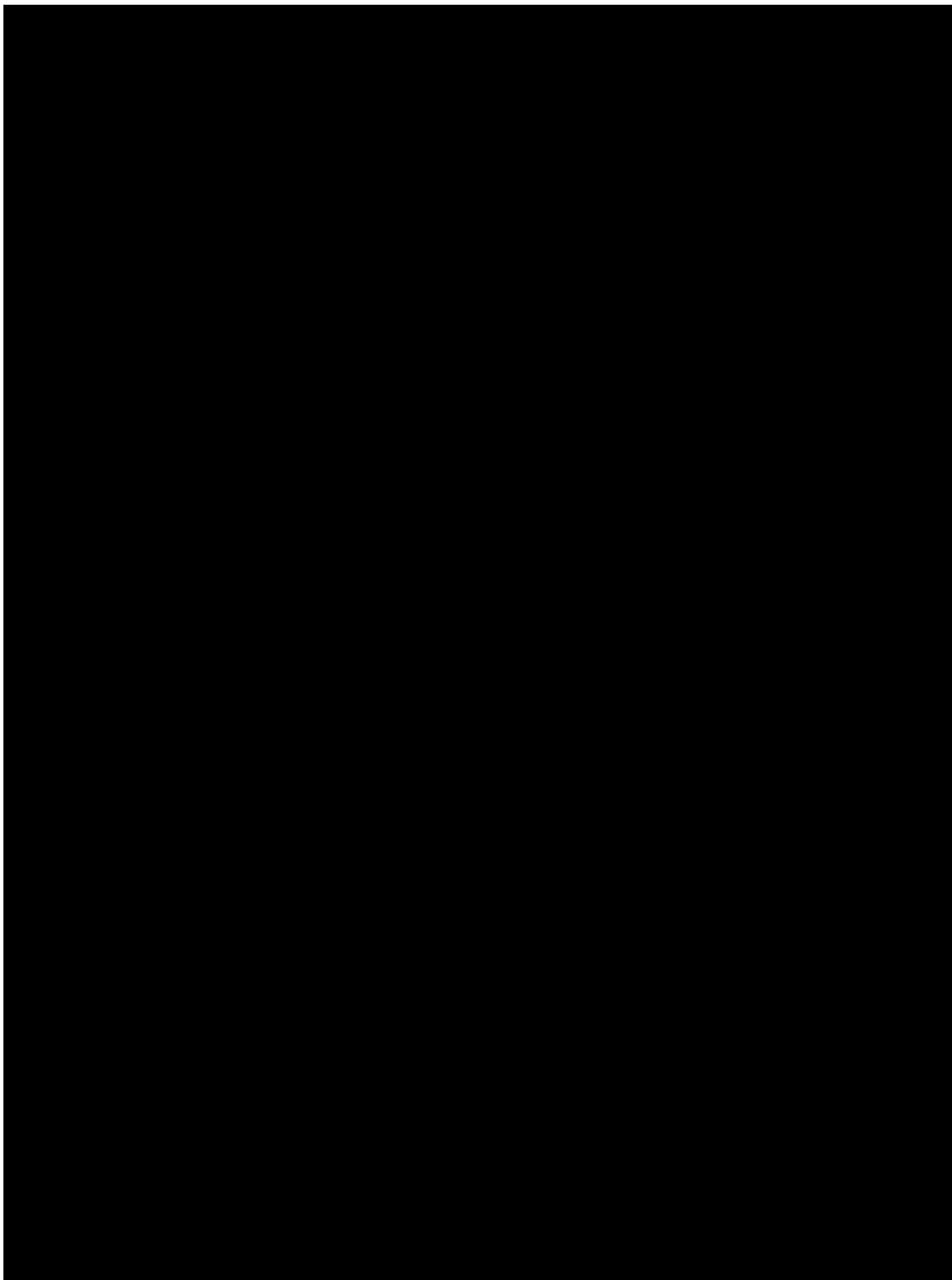
Miller Homes

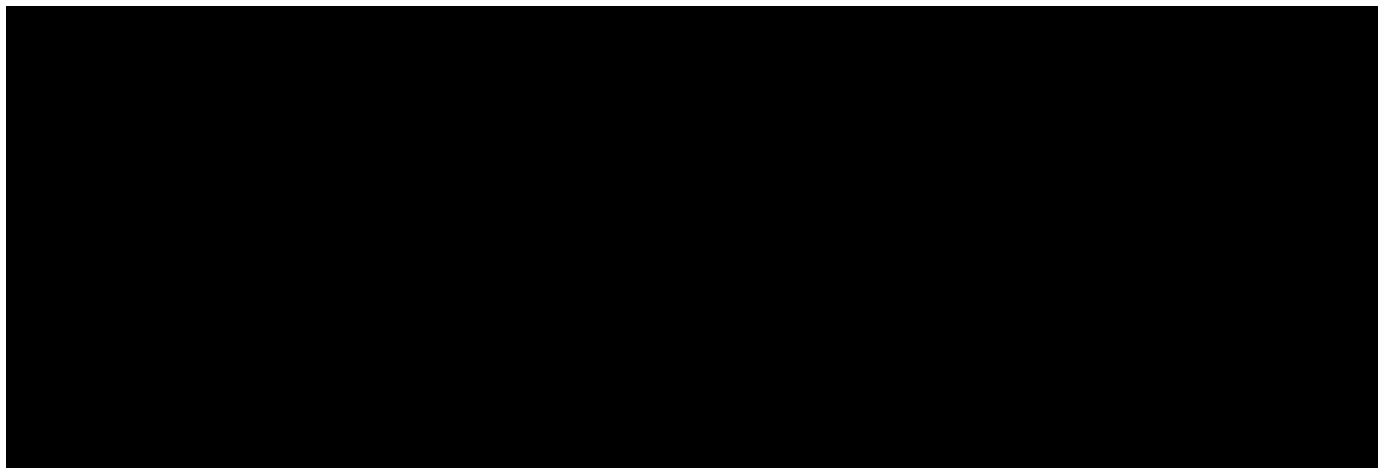
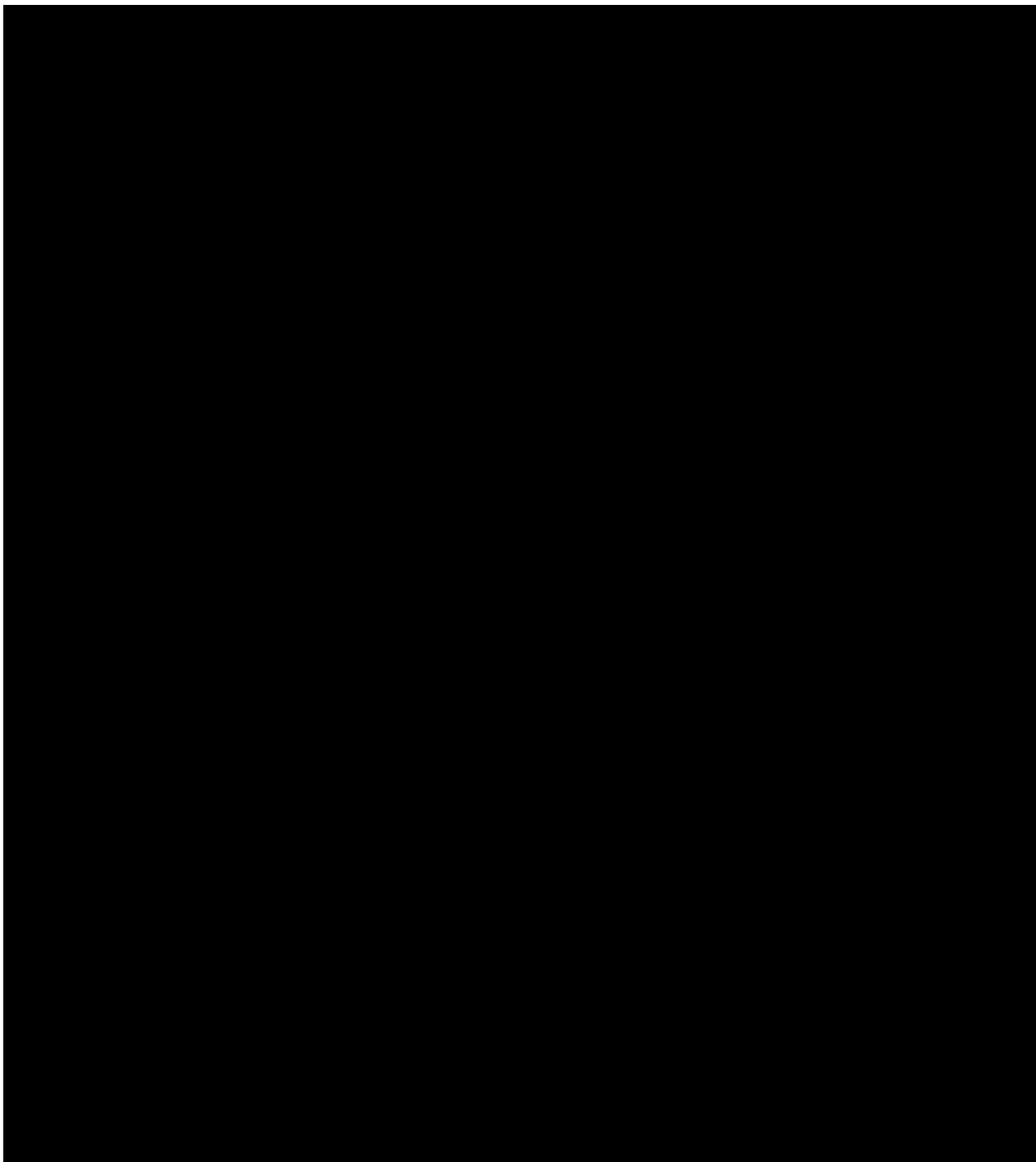
SLR Project No.: 404.064550.00005

28 November 2025

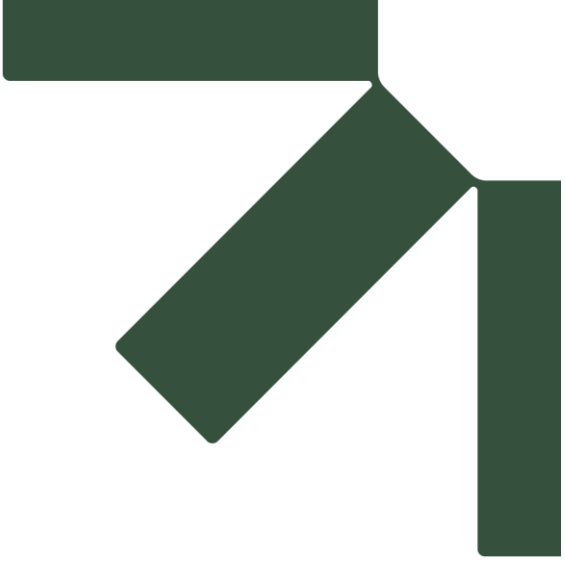












Appendix E Bat GLTA Survey Technical Memorandum

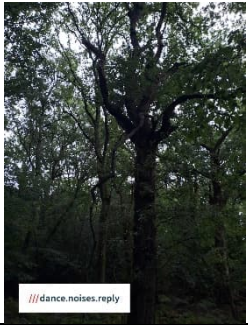
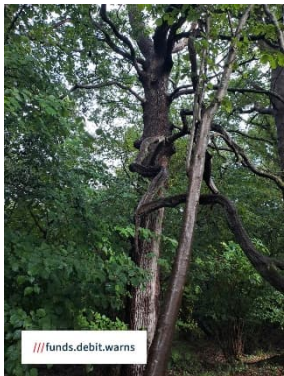
Ecological Impact Assessment (EcIA)

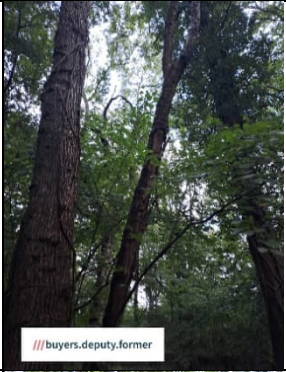
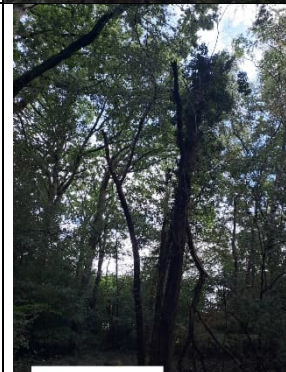
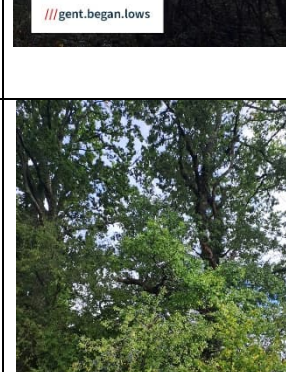
Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

SLR Project No.: 404.064550.00005

28 November 2025

What3words	Feature description	Classification	Image
dance.noises.reply	2 cavities where limbs have been lost. South-facing.	prf-l	
rare.metals.pots	Cavities and bark stripped on one southern limb. Possible woodpecker hole high in tree canopy.	prf-l	
funds.debit.warns	South-facing woodpecker hole. Northern limb with bark stripped and cavity from storm damage.	prf-l	
cabin.expert.dream	Multiple torn limbs but cavities all face upwards so unlikely to shelter from the rain and will not be considered. Single woodpecker hole west-facing.	prf-l	

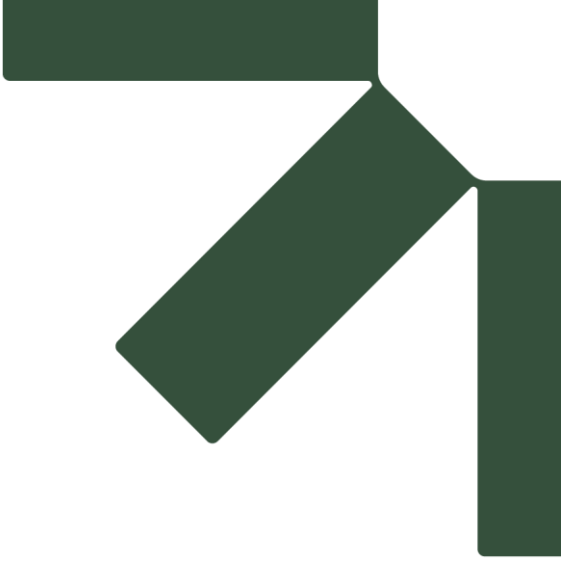
buyers.deputy.former	Bark stripped with weatherproof opening on south-eastern face of tree.	prf-l	
circle.bump.chefs	Limb loss and storm damage resulting in 2 south-facing cavities.	prf-l	
gent.began.lows	South-western limb with storm damage and potential cavity within limb. Ivy coverage at top of tree could be obscuring other potential roosts.	prf-l	
headed.unless.figure	One western-facing limb with storm damage resulting in a cavity.	prf-l	

flats.sticky.moral	One eastern-facing limb with bark stripping resulting in a potential roosting feature.	prf-l	
pans.twins.rise	Thick ivy coverage and one north-eastern limb with storm damage.	prf-l	
sorry.period.pits	Ivy coverage up to 3m from the ground. 2 woodpecker holes on south-eastern face of tree.	prf-l	

copies.pops.bucks	Ivy coverage on whole tree. Potential day roost.	prf-l	
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Site visit on Friday 29 August 2025.

Potential foraging routes due to abundance of linear features and potential foraging grounds.



Appendix F River Condition Assessment, Watervole & Otter Survey Reports

Ecological Impact Assessment (EclA)

Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

SLR Project No.: 404.064550.00005

28 November 2025

To: Matt Richardson

From: William Dent

Company: Miller Homes

SLR Consulting Limited

cc: Andrea Wilcockson

Date: 13 November 2025

Project No. 404.064550.00001

RE: Land Parcels Adjacent to Worsell Drive, Copthorne – Water Vole and Otter Surveys

Introduction

In 2025, SLR Consulting Limited (SLR) was commissioned by Miller Homes to undertake a targeted surveys for otter *Lutra lutra* and water vole *Arvicola amphibius* of Copthorne Brook, to support the planning application for residential development on two land parcels adjacent to Worsell Drive, Copthorne (Ordnance Survey (OS) National Grid Reference: (NGR) TQ 30620 39196).

The construction and/or operation of a proposed development at two land parcels which are adjacent to Worsell Drive, Copthorne (Ordnance Survey (OS) National Grid Reference (NGR) TQ 30620 39196) would necessitate amongst other activities the construction of an outfall structure no wider than 2m into the Copthorne Brook.

Risks were identified from the Site itself in terms of potential disturbance of otter should they be present along two watercourses in proximity to the Site. As well as direct impact to one of these watercourses, the Copthorne Brook, from the outfall construction which may negatively impact otter, water vole, and the watercourse itself. As such, otter and water vole surveys, which were undertaken in August 2025, were necessary to inform an assessment of the potential impacts on important ecological receptors.

Site Context and Description

The proposed development is part of a wider multi-phased development which includes numerous residential plots. As such, the wider Copthorne site itself has been subject to wide ranging and long running ecological surveys and assessments to inform impact assessment, site designs, and mitigation requirements. Such ecological surveys have not identified evidence of breeding or resting places for water vole or otter.

The proposed development is separated into two parcels: the 'Northern Parcel' at OS NGR TQ 30736 39391, and the 'Southern Parcel' at OS NGR TQ 30611 39256, both are approximately 300m and 410m east of the M23 and are approximately 50m and 178m west of Copthorne village.

The Southern Parcel comprises two grassland fields and a site compound, with the Northern Parcel comprising hard standing and grassland.

One watercourse, Copthorne Brook, is situated within the 30-metre buffer area approximately 11 metres away from the Southern Parcel. It occupies the land between the two parcels comprising the proposed development. A second watercourse runs northwards c50m west from the Southern Parcel and joins the Copthorne Brook.

The wider landscape is a mosaic of agricultural fields bordered by hedgerows, areas of woodland, and developed areas. The village of Copthorne is located less than a 1km to the east of the development, and the town of Crawley less than a 1km to the south-west. The M23 lies 300m west of the development and the A264 (Copthorne Way) 450m south of the development.

Methodology

The surveys were undertaken on 29th August 2025 by SLR Project Ecologist William Dent BSc, MSc, Qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and has over 2 years' experience as a professional ecologist. William has undertaken several surveys for water vole and otter.

The report has been subject to review and approval in accordance with SLR company procedures by Dr Andrea Wilcockson, BSc, MSc, PHD, CEnv, MCIEEM (Full member of the Chartered Institute of Ecology and Environmental Management), a Technical Director with SLR's Ecology & Biodiversity team who has over twenty-one years' experience in ecological consultancy.

Otter Survey

The Survey Area comprised a total of 680m of watercourse and suitable areas of habitat adjacent within 50m of the banks. This included the area of Copthorne Brook within the Site and 100m up and downstream, and 100m of the watercourse to the west of the Southern Parcel.

The survey involved assessing the suitability of the watercourse and habitats within the Survey Area in line with survey guidance¹ and a targeted search for evidence of otter presence. Habitat characteristics assessed included:

- water depth, quality, and likely frequency and height of water level changes, relative to bank height;
- presence of potential couch, lay-up points, or holt locations (such as overhanging tree roots);
- presence of spraint and spraint-marking locations (prominent features such as large rocks protruding from the watercourse, bridges, and logs);
- presence of prey items within the watercourse or within proximity to; and
- presence of public pressure/disturbance.

The targeted search included searching for otter signs such as:

- incidental otter sightings;
- spraints;
- slides;
- pawprints and tracks;
- feeding remains; and
- otter remains.

Water Vole Survey

Survey Area comprised 100m upstream and downstream of the reach of Copthorne Brook that fell within the Site, as well as land extending 10m from the bank tops of the watercourse.

The search involved identifying burrows, feeding stations, latrines, and potential paths at the water's edge, as described in the Water Vole Conservation Handbook² which would then

¹Chanin P (2003). *Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10*, English Nature, Peterborough.

² Strachan R, et al., (2011) Water Vole Conservation Handbook 3rd Edition. Wildlife Conservation Research Unit, Abingdon.



indicate a presence of water vole within the Brook. This involved walking the margins of the water bodies. On the day of the survey the rainfall was too intense to safely enter the stream and survey from within the water column.

Certain aspects of the habitat suitability assessment for water vole were also assessed for including the level of shading from overhanging trees and shrubs, bank profile and structure of the watercourse, water flow and evidence of fluctuation of water-levels, and the presence of anthropogenic impacts.

Legislative and Planning Policy Context

Otters are protected under The Conservation of Habitats and Species (Amended) (EU Exit) Regulations 2019 and also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) making it an offence to: recklessly or deliberately capture, kill, disturb or injure an otter; damage or destroy a breeding site or resting place; obstruct access to a place of rest or shelter; and to possess, sell control or transport live or dead otters, or parts of otters.

Water voles are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally kill, capture or injure a water vole, and/or intentionally or recklessly disturb, obstruct, damage or destroy their burrows.

Otters and water voles are also Species of Principal Importance for the purpose of conserving biodiversity in England. There is a requirement that adverse effects of development on a Species of Principal Importance should be avoided through planning conditions or obligations and that planning permission should be refused where harm to these species, or their habitats, may result, unless the need for, and benefits of, the development clearly outweigh the harm.

Limitations

The survey was conducted during heavy rainfall which may have affected the water table and bank profile. This may have resulted in loss of field sign visibility as burrows may have been below the water table, latrines and feeding stations may have been washed away. As a result, the results of this survey should be analysed in conjunction with the survey performed by SLR in February 2025. Burrows beneath dense vegetation or the water line can be missed, and therefore the results cannot guarantee an absence of a low population of water vole, or future occupation should the watercourse be suitable for neighbouring populations to expand into.

A partial habitat suitability assessment of the watercourse was also undertaken which adds valuable information to inform a reasonable assumption of presence or absence of the species. Nevertheless, this approach is potentially a significant limitation and is discussed further in this report.

The Survey Area for otter extended 50m from the banks where the habitat was suitable. However, for much of the survey area this was decreased to 10m from the bank top due to the area being highly disturbed from the construction of the residential development and therefore considered unsuitable for otter. Furthermore, the areas in question have been subject to numerous surveys over the different phases of the development of the Copthorne project, with no otter holts or couches recorded present within that area or the wider site. Therefore, it is considered that the extent of suitable otter habitat was searched for potential field signs.



Overall, no significant limitations were encountered during the survey for the survey methods used.

Results

Water Vole

The bank of Copthorne Brook comprised of varying bank profiles including vertical with undercut, vertical with toe, gentle (less than 45 degrees), and steep (more than 45 degrees), which are suitable and sub-optimal for water voles to establish burrows. Much of the bank was sparsely vegetated with terrestrial species. No aquatic flora were identified which may have been due to the high water levels caused by the weather. The watercourse is heavily overshadowed by woodland, so a reduction in ground flora variation is likely and therefore reduced the likelihood of food resource availability for water voles.

In addition, the presence of construction and residential development in proximity to the watercourse (including dog walkers through and around the Survey Area) reduced the suitability of the watercourse for the species also.

The watercourse showed signs of a relatively stable water-level, with the watercourse highly unlikely to dry entirely. Furthermore, information from the river levels website for the Burstow stream, of which the Copthorne Brook is a tributary, revealed a water level range recorded usually between 0.75m and 2.65m³.

Ultimately, though, the watercourse offered sub-optimal habitat for the species even with consideration of the potential for higher vegetation variation.

No burrows suitable for water vole were found and no other field signs were recorded. The burrow survey included all areas of banks with no access constraints to the Survey Area, conducted at a time when the water level was potentially high, making it highly possible that suitable water vole burrows were missed. However, considering no water vole burrows were found during previous surveys in 2025, water voles are considered absent from the Survey Area.

Otter

The watercourses were considered sufficiently deep and sheltered from disturbance to offer potential commuting opportunities for otter, with the presence of aquatic fauna including potential prey species a possibility.

Furthermore, scattered trees and overhanging root systems were present along the bank face and bank tops along the watercourse that could potentially offer a place of rest and shelter (holts and couches), but no evidence of occupancy by otter was recorded.

One mammal hole was identified within 10m of the banks which was large enough to house otters but had no indication of a path from the water course to the hole entrance and field signs indicated active use by rabbits.

The presence of nearby construction activities and residential areas to the watercourse greatly limited its potential to be used by otters for undisturbed breeding or resting up.

Potential spraint marking locations such as bridges and exposed root plates were present within the Survey Area, but no spraints were recorded. Despite areas of suitably soft sand and exposed soil adjacent to and along the watercourses, no pawprints, or slides were recorded.

³ The monitoring station was the closest identified at c3km downstream from the Survey Area.



No other signs including incidental sightings, feeding remains, or otter remains were identified during the survey.

Figure 1: Typical example of habitat present for otter at Copthorne Brook



Figure 2: Mammal Hole within 10m of the Copthorne Brook



In summary, no evidence of otter was identified during the survey, but there remained the potential for otter to utilise the watercourse, particularly for commuting and foraging.

Other Notable Species

No signs of other notable species were identified during the survey.

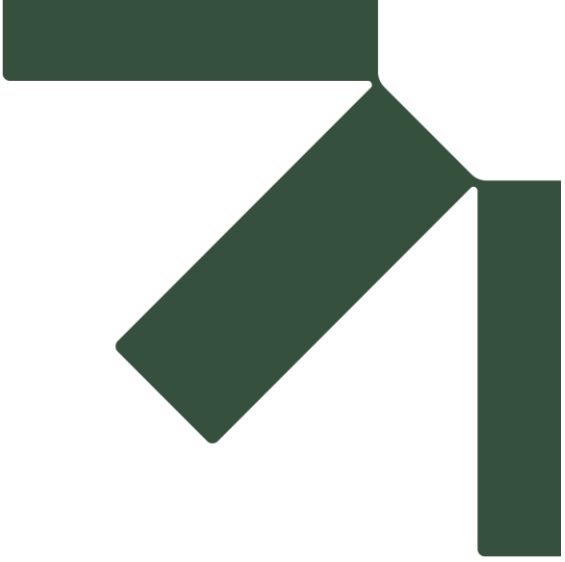


Summary and Conclusions

SLR has undertaken a water vole and otter survey of Copthorne Brook, with no evidence of either species found within the watercourse, bank faces, or bank tops of the watercourse within the Survey Area, but there remained potential for otter within the Survey Area.

It is recommended that a precautionary working method statement for otter is produced to ensure that the works do not disturb otter. This should include a pre-works check of the Survey Area. Also included within the document should be appropriate pollution prevention measures during construction and operation.





Appendix G Crayfish eDNA Results

Ecological Impact Assessment (EcIA)

Land Parcels adjacent to Worsell Drive, Copthorne

Miller Homes

SLR Project No.: 404.064550.00005

28 November 2025

Folio No: 4079-2025
Purchase Order: 018174-433
Contact: SLR Consulting Ltd
Issue Date: 15.09.2025
Received Date: 05.09.2025

eDNA Report

Technical Report



SureScreen Scientifics

Folio No: 4079-2025
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eDNA Analysis

Summary

When aquatic organisms inhabit a waterbody such as a pond, lake or river they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm the presence or absence of the target species within the waterbody.

Results

Lab ID	Site Name	OS Reference	Target Species	Sample Integrity Check	Result	Positive Replicates
FK3407	Copthorne - River 1	TQ 30482 39240	Signal crayfish (Pacifastacus leniusculus)	Pass	Negative	0
			White-clawed crayfish (Austropotamobius pallipes)	Pass	Negative	0

Matters affecting result: none

Reported by: Lauryn Jewkes

Approved by: Lauryn Jewkes

Methodology

Samples have been analyzed for the presence of target species eDNA following readily available and scientifically published eDNA assays and protocols.

The analysis is conducted in two phases. The sample first goes through an extraction process where the filter is incubated in order to obtain any DNA within the sample. The extracted sample is then tested via real-time PCR (also called q-PCR) for each of the selected target species. This process uses species-specific molecular markers (known as primers) to amplify a select part of the DNA, allowing it to be detected and measured in 'real time' as the analytical process develops. qPCR combines amplification and detection of target DNA into a single step. With qPCR, fluorescent dyes specific to the target sequence are used to label targeted PCR products during thermal cycling. The accumulation of fluorescent signals during this reaction is measured for fast and objective data analysis. The primers used in this process are specific to a part of mitochondrial DNA only found in each individual species. Separate primers are used for each of the species, ensuring no DNA from any other species present in the water is amplified. If target species DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If target DNA is not present then amplification does not occur, and a negative result is recorded.

Analysis of eDNA requires scrupulous attention to detail to prevent the risk of false positive and false negative results. True positive controls, negative controls, and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared. Stages of the analysis are also conducted in different buildings at our premises for added security. SureScreen Scientifics Ltd is ISO9001 accredited and participates in Natural England's proficiency testing scheme for GCN eDNA testing.

Interpretation of Results

Sample Integrity Check: Laboratory Arrival:

When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to inconclusive results. Any samples which fail this test are rejected and eliminated before analysis.

Degradation and Inhibition check:

Analysis of the spiked DNA marker to see if there has been degradation or inhibition of the kit or sample, between the date it was made to the date of analysis. Degradation of the spiked DNA marker may indicate a risk of false negative results. If inhibition is detected, samples are purified and re-analyzed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.

Result:

Presence of eDNA (Positive/Negative/Inconclusive)

Positive: DNA was identified within the sample, indicative of species presence within the sampling location at the time the sample was taken or within the recent past.

Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for species presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. Even a score as low as 1/12 is declared positive. 0/12 indicates negative species presence.

Negative: eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of species absence, however, does not exclude the potential for species presence below the limit of detection.

Inconclusive: Controls indicate inhibition or degradation of the sample, resulting in the inability to provide conclusive evidence for species presence or absence.



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