

**PARCEL R10, PHASE 2B OF THE SOUTH
WOKINGHAM STRATEGIC DEVELOPMENT
LOCATION**

BIODIVERSITY NET GAIN DESIGN STAGE REPORT

Final Document (Revision 1)

June 2025

Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EclA • HRA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

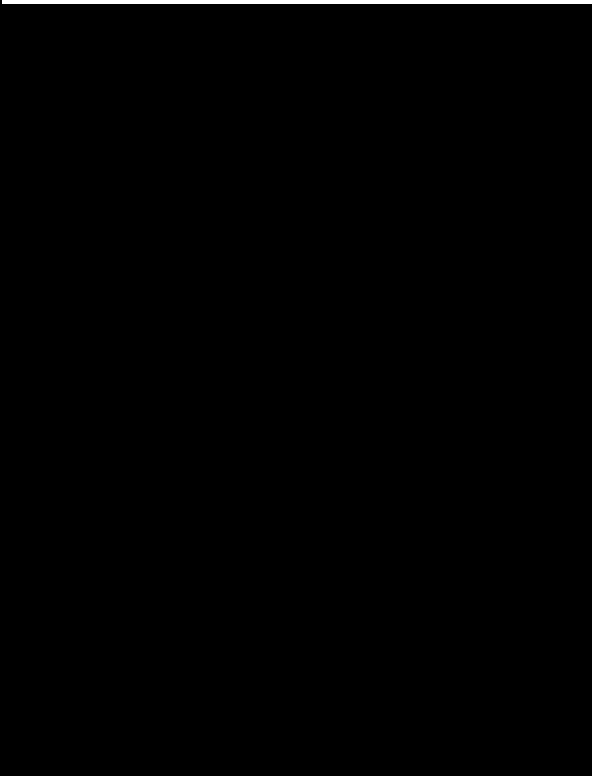
ECOSA, Ten Hogs House, Manor Farm Offices, Flexford Road, North Baddesley, Hampshire, SO52 9DF
Tel: 02380 261065 Email: info@ecosa.co.uk Web: www.ecosa.co.uk

Registered Office: 3-4 Eastwood Court, Romsey, Hampshire, SO51 8JJ Registered in England No: 6129868
Ecological Survey & Assessment Limited is a Trinity Consultants Company



ECOSA Quality Assurance Record

This report has been produced in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing 2017 (CIEEM, 2017), the CIEEM Biodiversity Net Gain Good Practice Principles for Development (CIEEM, 2016) and the CIEEM Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

Description:	Biodiversity Net Gain Design Stage Report
Produced For:	Miller Homes
Issue:	Final (Revision 1)
Report Reference:	25.0009.0001.F1
Date of Issue:	30 th June 2025
Date of Baseline:	8 th April 2020
Metric Version and Date:	DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019) – 17 th March 2025
Author:	
Checked by:	
Reviewed by:	

DISCLAIMER

This is a technical report which does not represent legal advice. You may wish to seek legal advice if this is required.

COPYRIGHT

© This report is the copyright of ECOSA Ltd. Any unauthorised reproduction or usage by any person is prohibited.

**PARCEL R10, PHASE 2B OF THE SOUTH WOKINGHAM STRATEGIC DEVELOPMENT
LOCATION**

BIODIVERSITY NET GAIN DESIGN STAGE REPORT

Table of Contents

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 Background.....	2
1.2 The Site	3
1.3 Aims and Scope of Report.....	4
1.4 Site Proposals.....	5
2.0 LEGISLATIVE AND PLANNING POLICY CONTEXT.....	6
2.1 Introduction	6
2.2 National Legislation	6
2.3 Planning Policy	6
3.0 METHODOLOGY	8
3.1 Biodiversity Net Gain Assessment Process	8
3.2 Establishing the Relevant Date for the Pre-development Value	10
3.3 Pre-Development Calculation	10
3.4 Post-Development Assessment	12
4.0 BASELINE ECOLOGICAL CONDITIONS.....	14
4.1 Introduction	14
4.2 Important Ecological Features.....	14
4.3 Baseline Habitats.....	14
4.4 Baseline Biodiversity Units	16
5.0 PROPOSED DESIGN	17
5.1 Introduction	17
5.2 Habitat Retention	17
5.3 Habitat Enhancement	17
5.4 Post-Development Habitats.....	17
5.5 Post-Development Biodiversity Units	18
6.0 RESULTS AND CONCLUSIONS	19
6.1 Results.....	19
6.2 Conclusion	19
7.0 REFERENCES	20
Map 1 Site Location Plan	23
Map 2 Baseline Habitats.....	24
Map 3 Baseline Condition and Distinctiveness	25
Map 4 Habitat Retention	26
Map 5 Post-Development Habitats.....	27
Map 6 Post-Development Condition and Distinctiveness	28

Appendix 1	Site Proposals Plan	29
Appendix 2	Components of Biodiversity Quality and Risk Multipliers	30
Appendix 3	Biodiversity Net Gain Good Practice Principles for Development	33
Appendix 4	Baseline Hedgerow Condition Assessment	36
Appendix 5	Post-Development Created Habitat Target Condition	40
Appendix 6	Post-Development Created Hedgerow Habitats Target Condition	46

EXECUTIVE SUMMARY

Ecological Survey and Assessment Ltd (ECOSA) have been appointed by Miller Homes to prepare a Biodiversity Net Gain Design Stage Report for Parcel R10, Phase 2b of the South Wokingham Strategic Development Location (SDL), Wokingham, Berkshire. The purpose of the assessment is to demonstrate whether the proposals will contribute to a surplus or deficit in relation to the Biodiversity Net Gain Target. The site is located to the South of Wokingham on the border of the Wokingham Borough and Bracknell Forest administrative areas and comprises approximately 90.95 hectares of predominately agricultural land. The area which is the subject of the current Reserved Matters application comprises approximately seven hectares in the east of the site. The proposals entail the construction of 215 dwellings with associated landscaping.

The main findings of the Biodiversity Net Gain Design Stage report are:

- The site comprises cereal crop, 'developed land; sealed surface' representing Waterloo Road, and native boundary hedgerows. The pre-development on-site baseline units are 13.37 habitat units and 5.47 hedgerow units.
- All cereal crop and 'developed land; sealed surface' is lost to the development. Hedgerows will be retained with the exception of H26 which will be partially lost;
- In addition to the residential development ('developed land; sealed surface') and associated vegetated gardens, the development will include the creation of modified grassland, introduced shrub, mixed shrub and rain gardens within the developed area. Public open space will include other neutral grassland and newly created woodland blocks, and a Sustainable Urban Drainage feature, designed to be beneficial for wildlife, will be created in the west of Parcel R10;
- Habitats will be managed to meet their target condition for a minimum 30 year period following development by following measures set out in the accompanying Landscape and Ecological Management Plan;
- Following the completion of the assessment post-development units are 14.09 habitat units and 10.18 hedgerow units. This represents a 5.42% gain in habitat units and 86.29% gain of hedgerow units. Although this parcel will be under the 10% net gain target of the scheme, it is considered that this will be offset by gains in other areas.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by Miller Homes to prepare a Biodiversity Net Gain Assessment to support a Reserved Matters application for the development of Parcel R10, Phase 2b of the South Wokingham Strategic Development Location (SDL) (hereafter referred to as 'the site').

A hybrid planning consent was submitted to Wokingham Borough Council and granted on 19th July 2024 (Ref. 191068). The hybrid application comprised an outline application for a mixed use development of up to 1,434 dwellings, a two-form entry primary school, local centre, public open space, play areas and associated infrastructure and landscaping, and a full application for the associated Suitable Alternative Natural Greenspace (SANG), known as Holme Park SANG, associated landscaping and temporary car park.

To support the application a Biodiversity Net Gain assessment was submitted (ECOSA, 2020). The submitted application made use of the DEFRA Metric 2.0 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019), which was the metric calculation tool that was current at the time of submission. The assessment was subsequently updated in part to address comments from Wokingham Borough Council and in part to update the calculation using the DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019), which was at that stage the most current calculation tool (Aspect Ecology, 2022).

Following granting of planning consent, a section 106 (s106) agreement was entered into, which included certain commitments in relation to Biodiversity Net Gain, these commitments are set out in Part 7 of the s106 and include:

- Establishing a Biodiversity Net Gain Target for the Application Site and Holme Park SANG – this target is a 10% net gain on the Biodiversity Net Gain Baseline. The Biodiversity Net Gain Baseline is defined as the habitat type and habitat condition as recorded in the South Wokingham Revised Biodiversity Net Gain Assessment (Aspect Ecology, 2022), which is included in Annex 15 of the s106;
- Determining whether the Biodiversity Net Gain units at the time of the approval of the Reserved Matters for the final Development Zone exceed or fall short of the Biodiversity Net Gain Target;
- If there is a shortfall, Wokingham Borough Council will calculate a Biodiversity Net Gain Contribution, based on the Biodiversity Net Gain Unit Price (£20,000),

and serve a Biodiversity Net Gain Contribution Notice on the Owners, specifying the Biodiversity Net Gain Contribution amount.

- If the target is exceeded, Wokingham Borough Council will give notice of a Biodiversity Net Gain Surplus. The surplus may be registered on the biodiversity gain site register or sold to a third party, in order to offset other schemes in future. The registration or sale of the Biodiversity Net Gain Surplus is subject to the council's approval and/or meeting various requirements specified within the s106. This includes making a Biodiversity Net Gain Administration and Monitoring Contribution to compensate the council for reasonable costs arising from each request to register a or assist with the sale of the units forming the surplus,

In order to facilitate this Schedule 10 of the s106 requires that on or prior to the submission of each Reserved Matters application to the council, a Biodiversity Net Gain Assessment using DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019) must be submitted. In addition, the Biodiversity Net Gain Units (if any) by which any previous Reserved Matters applications within the Application Site and Home Park SANG, combined, exceeded the Biodiversity Net Gain Target for the previous Reserved Matters approvals within the Application Site and Holme Park SANG combined must also be submitted.

Prior to the submission of any reserved matters applications, a separate planning application was submitted to Wokingham Borough Council for a link road, to provide an alternative route to Waterloo Road from south of the roundabout at the junction of Waterloo Road with William Heelas Way to a point further east on Waterloo Road, together with a turning head between the two new junctions (Ref. 240892). Due to the date of this application (1st November 2024), this application was required to demonstrate delivery of 10% net gain using the Statutory Metric, in accordance with Schedule 7a of the Town and Country Planning Act 1990 (Paragraph 2.2). This application and the link road application have overlapping red line boundaries, however, if both applications undertake a Biodiversity Net Gain Assessment on the same land there is a risk of 'double counting' i.e. using the same habitat creation or enhancement measures to offset multiple loss areas which are not equivalent. Therefore, to avoid double counting, the area within the red line of the link road application has been excluded from the Biodiversity Net Gain Assessment for this application, despite falling within the red line boundary.

1.2 The Site

The site is located to the South of Wokingham on the border of the Wokingham Borough and Bracknell Forest administrative areas, located, centred on National Grid

Reference (NGR) SU 8251 6782. The site comprises approximately 90.95 hectares and predominately consists of agricultural farmland, although also includes parts of Easthampstead Road and Waterloo Road.

The area which is the subject of the current Reserved Matters application (hereafter referred to as 'Parcel R10') comprises approximately seven hectares in the east of the site, centred on NGR: SU 8320 6796.

Both the site boundary and the boundary of Parcel 10 are shown on **Map 1**.

1.3 Aims and Scope of Report

The aim of this document is to establish whether the development of Phase 2b of the South Wokingham SDL continues to deliver a measurable net gain in biodiversity following the detailed design of this Reserved Matters application. The net change in biodiversity value is determined by calculating the pre-development and post-development biodiversity units provided by the site using the DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019).

The document provides a summary of the scheme design for the Reserved Matters application and background ecological information which has been used to undertake the metric calculations. The metric calculations have been provided in a separate excel spreadsheet (ECOSA, 2025a). Although all areas of have been included in the metric calculation, only habitats associated with the boundary of this Reserved Matters application are discussed and mapped in this report. Details of pre- and post-development habitats for land associated with future Reserved Matters applications is provided in the following documents:

- The Environmental Statement submitted as part of the hybrid application provides detailed habitat descriptions for pre-development habitats (Nexus, 2019);
- The Land at Phase 2 of the South Wokingham SDL – Biodiversity Net Gain Assessment provides explanation for the metric inputs for pre- and post-development habitats at the time the hybrid application was submitted (ECOSA, 2020); and
- South Wokingham Revised Biodiversity Net Gain Assessment included within the s106 agreement provides information on subsequent amendments made to the metric in order to 'transfer' it into the DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019) and to address initial comments from Wokingham Borough Council (Aspect Ecology, 2022).

This document should also be read in conjunction with the following documents which will be submitted as part of this Reserved Matters application:

- Ecological Mitigation Strategy (ECOSA, 2025b); and
- Landscape and Ecological Management Plan (Pegasus Group, 2025).

1.4 Site Proposals

The proposals are for the construction of 215 dwellings with associated landscaping.

At the time of production of this report, it is anticipated that consent will be sought during February/March 2025 with works commencing on site during spring/summer 2025.

2.0 LEGISLATIVE AND PLANNING POLICY CONTEXT

2.1 Introduction

This section summarises the legislative and planning policy as relevant to Biodiversity Net Gain within the Wokingham Borough Council administrative area. This information is then used to make necessary recommendations for mitigation and enhancements in order to ensure any future planning application accords with relevant planning policy.

2.2 National Legislation

Schedule 14 of the Environment Act 2021 inserts a new schedule, Schedule 7A, into the Town and Country Planning Act 1990 that requires schemes seeking planning consent to achieve 10% net gain as measured by an approved metric (DEFRA, 2024c). The requirements under Schedule 14 came into force on 12th February 2024. Therefore, any planning permissions submitted after this date are subject to a legal minimum requirement to demonstrate 10% Biodiversity Net Gain. However, as a hybrid planning application for this scheme was submitted before this date (10th June 2019), there is no legal requirement for the scheme to achieve 10% net gain and this requirement is based on planning policy drivers only (Paragraph 2.3).

2.3 Planning Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. The original document was published in 2012 with the most recent revised NPPF published in December 2024.

The NPPF sets out that development proposals should not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 187 states that the planning system should contribute to and enhance the natural environment by *"...minimising impacts on and providing **net gains** for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."*.

Local planning policy within Wokingham is provided by the Wokingham Borough Council final adopted Core Strategy, adopted 29th January 2010 and the Wokingham Borough Development Plan 2014, adopted 21st February 2014. Policy TB23 of the Wokingham Borough Development Plan 2014: 'Biodiversity and Development' states that as well as complying with Policy CP7 of the Core Strategy: 'Biodiversity', which sets out requirements for protecting biodiversity on site, development proposals must also demonstrate how they provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing. This supports the existing requirement of the

Although neither of these policies specifically requires a metric to be used to demonstrate that net gains for biodiversity would be delivered by the scheme, given the uncertainty around future legal requirements for Biodiversity Net Gain and the use of metrics it was agreed with Wokingham Borough Council that a metric would be used to provide quantitative evidence that the scheme would deliver a net gain for biodiversity.

3.0 METHODOLOGY

3.1 Biodiversity Net Gain Assessment Process

The Biodiversity Net Gain Assessment was undertaken using DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019).

The calculation tool provides a pre- and post-development biodiversity value for the site, which allows an assessment of the net biodiversity losses or gains to be made.

First the habitat types are established. Habitats are classified using either the UK Habitat Classification System (UKHab Ltd, 2023), European Nature Information System (EUNIS) (European Environment Agency (EEA), 2019), Water Framework Directive (WFD) Lakes typologies UK Technical Advisory Group (UK Technical Advisory Group (UKTAG), 2003) or the hedgerows and lines of trees key within the Biodiversity Metric 3.1 - Auditing and accounting for biodiversity - User Guide (Natural England, 2022). A small number of habitats have definitions specific to biodiversity metric 3.1. This means that habitats are classified in a way which is widely recognised and that can be directly input into the biodiversity metric 3.1 calculation tool. All habitats used in biodiversity metric 3.1 and their definition source are provided in the Biodiversity Metric 3.1 - Auditing and accounting for biodiversity – Technical Supplement (Panks, et al., 2022).

Next, the areas of both pre-development and post-development habitats are established. Areas are mapped and measured by ECOSA using QGIS based on resources such as field survey results, aerial photography, Ordnance Survey (OS) mapping resources and plans provided by the client. Habitats that will be impacted by the proposals but returned to the same habitat type and condition within a year of the initial impact are considered temporary losses and are not accounted for in the metric. Non-linear habitats are measured in hectares while linear features are measured by length in kilometres. Therefore, for the purposes of the calculation they are addressed separately with separate biodiversity units calculated for linear and non-linear features.

The pre- and post-development values are calculated by taking the area of each habitat and applying multipliers, which can have a positive or negative effect on the overall score, based on a number of components of biodiversity quality. Additional 'risk' multipliers are applied to the post-development values, to account for the uncertainty around forecasting a future ecological scenario. These multipliers are detailed in **Appendix 2**.

Data regarding the current ecological conditions at the site pre-development (Paragraph 3.3) and proposed ecological conditions at the site post-development (Paragraph 3.4) are entered into the calculation tool in order to determine what

modifiers should be applied. For the purposes of inputting into the metric calculation tool areas are grouped into a single measurement based on that habitats characteristics (i.e. habitat, condition and strategic significance).

3.1.1 Metric Rules

The Biodiversity Metric 3.1 User Guide (Natural England, 2022) sets out four rules that must be followed when undertaking a metric calculation. If the calculation does not adhere to these rules, a proposal cannot claim a biodiversity net gain.

Rule 1

“Where the metric is used to measure biodiversity change, biodiversity unit values need to be calculated both prior to the intervention and post-intervention for all parcels of land / linear features affected.”

Rule 2

“Compensation for habitat losses can be provided by creating new habitats, or by restoring or enhancing existing habitats. Measures to enhance existing habitats must provide a significant and demonstrable uplift in distinctiveness and/or condition to record additional biodiversity units.”

Rule 3

“‘Trading down’ must be avoided. Losses of habitat are to be compensated for on a ‘like for like’ or ‘like for better’ basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost. Losses of irreplaceable or very high distinctiveness habitat cannot adequately be accounted for through the metric.”

This means that newly created habitats should be similar (for example grassland type habitats being replaced by grassland type habitats) and new habitat should aim to achieve either a higher distinctiveness and/or better condition than those which are lost. The only exception applies where low distinctiveness habitats are lost these can be offset with different but higher distinctiveness habitats. Losses of irreplaceable or very high distinctiveness habitat should be avoided or a bespoke compensation scheme would need to be devised and agreed with the relevant authority. Further information on trading rules is provided within the user guide to support this rule.

Rule 4

“Biodiversity units generated by biodiversity metric 3.1 are unique to this metric and cannot be compared to unit outputs from versions 3.0, 2.0, the original DEFRA metric, or any other biodiversity metric. Furthermore, the three types of biodiversity units generated by this metric (for area, hedgerow and river habitats) are unique and cannot be summed, traded or converted.”

Rule 5

“It is not the area/length of habitat created that determines whether ecological equivalence or better has been achieved but the net change in biodiversity units. Risks associated with creating or enhancing habitats mean that it may be necessary to create or enhance a larger area of habitat than that lost, to fully compensate for impacts on biodiversity.”

Rule 6

“Deviations from the published methodology of biodiversity metric 3.1 need to be ecologically justified and agreed with relevant decision makers. While the methodology is expected to be suitable in the majority of circumstances it is recognised that there may be exceptions. Any local or project-specific adaptations of the metric must be transparent and fully justified.”

3.1.2 Good Practice Principles

The Construction Industry Research and Information Association (CIRIA), the Institute of Environmental Management and Assessment (IEMA) and CIEEM have developed the first UK principles on good practice to achieve Biodiversity Net Gain. These principles provide a framework that helps improve the UK’s biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development (CIEEM, 2016). The principles are listed in **Appendix 3**. This assessment has been undertaken in line with these best practice principles.

3.2 Establishing the Relevant Date for the Pre-development Value

In accordance with the s106 agreement the Biodiversity Net Gain Baseline is based on the habitat type and habitat condition as recorded in the South Wokingham Revised Biodiversity Net Gain Assessment, December 2022 (Ref: 6087 TN05 SWBNG dv1) (Aspect Ecology, 2022). This document is available in Annex 15 of the Deed. This document referred to baseline ecological conditions established on 8th April 2020.

3.3 Pre-Development Calculation

The information input into the DEFRA Metric Calculation Tool is provided below:

3.3.1 Habitat Type and Area

The habitat area data entered into the calculation tool is for all habitats that lie within Parcel R10 of the red line boundary for the Phase 2b of the South Wokingham SDL as per the boundary set out in the South Wokingham Revised Biodiversity Net Gain Assessment, December 2022 (Ref: 6087 TN05 SWBNG dv1) (Aspect Ecology, 2022), with one exception. An area associated with the construction of a link road through Parcel R10 (this parcel), has been excluded from the biodiversity net gain calculation area for the current application, despite technically lying within the red line of the application, to avoid ‘double counting’ (Paragraph 1.1).

The habitat types and areas within this document were based on a Phase 1 habitat survey originally undertaken on 21st August 2015 by Andrew Bodey of ECOSA, and updated most recently on 8th April 2020 by Georgina Timmis, Principal Ecologist of ECOSA. The Phase 1 habitat survey followed best practice methods set out by the Joint Nature Conservation Committee (JNCC, 2010). Subsequently, the Phase 1 habitat classifications were converted to UKHab classifications (UKHab Ltd, 2023). The results of the Phase 1 habitat survey are provided in detail in the Environmental Statement (Nexus, 2019), and the details of conversion are provided in the Land at Phase 2 of the South Wokingham SDL – Biodiversity Net Gain Assessment (ECOSA, 2020), which was submitted with the original application. Aspect Ecology subsequently amended some of the habitat classifications based on discussions with Wokingham Borough Council. These changes are summarised in the South Wokingham Revised Biodiversity Net Gain Assessment (Aspect Ecology, 2022). For the purpose of this assessment, the only relevant change is that H25 was amended from 'native hedgerow' to 'native hedgerow – associated with bank or ditch'.

3.3.2 Habitat Condition

In accordance with the s106, the habitat condition data entered into the calculation tool are based on the values set out in the South Wokingham Revised Biodiversity Net Gain Assessment, December 2022 (Ref: 6087 TN05 SWBNG dv1) (Aspect Ecology, 2022). This document is available in Annex 15 of the Deed.

The habitat conditions within this document were based on a condition assessment survey undertaken on 8th April 2020 by Georgina Timmis, Principal Ecologist of ECOSA. The condition assessment was based on the criteria within the Biodiversity Metric 2.0 Technical Supplement (Crosher, et al., 2019). The habitat condition assessment is assumed to have been 'transferred' into Metric 3.1 as part of the South Wokingham Revised Biodiversity Net Gain Assessment, December 2022 (Ref: 6087 TN05 SWBNG dv1) (Paragraph 3.3.4). Some habitat types (for example most agricultural habitats and hardstanding) are not subject to assessment and are assigned default scores by the calculation tool.

3.3.3 Strategic Significance

The following plans, strategies and policies were identified as being relevant to the assessment of strategic significance for this site:

- Wokingham Biodiversity Action Plan (Wokingham Borough Council, 2014).

Based on a consultation with Thames Valley Environmental Records Centre (TVERC) on 5th July 2022, the site does not lie within any of Berkshire's Biodiversity Opportunity Areas or any Local Wildlife Sites, although, two Local Wildlife Sites, Big Wood LWS and Peacock Meadows LWS, lie approximately 215 metres and 515 metres to the east

of the site respectively. A Local Nature Recovery Strategy for Berkshire is currently in development, but is not due to be finalised until June or July 2025 (Royal Borough of Windsor and Maidenhead, n.d.).

These plans, strategies and policies were used to determine whether any pre-development habitats are of high strategic significance, and to justify a conclusion of medium strategic significance where relevant.

3.3.4 Assumptions and Limitations

Subsequent to the completion of the condition assessment on 8th April 2020, as part of the South Wokingham Revised Biodiversity Net Gain Assessment, Aspect Ecology 'transferred' the metric from the metric version 2.0 to the metric version 3.0. Metric version 3.0 included some changes to condition assessment criteria, however, as nothing is mentioned in the accompanying report, it is assumed that these changes did not affect the baseline condition assessments and that these remain based on the condition assessment survey undertaken on 8th April 2020.

3.4 Post-Development Assessment

The post-development biodiversity value of the site is based on information provided by Miller Homes with the following plans utilised in order to complete the assessment:

- Landscape Masterplan, dated 11th June 2025 (Drawing No. P24-2114_EN_001D (**Map 1**);
- R10 Detailed On-Plot Landscape Proposals, dated 11th June 2025 (Drawing No. P24-2114_EN_002C);
- Detailed POS Soft Landscaping Plan, dated 11th June 2025 (Drawing No. P24-2114_EN_003B).

The information input into the DEFRA Metric Calculation Tool is provided below:

3.4.1 Habitat Type and Area

The post development habitat type and area data entered into the calculation tool are based on the provided landscape plans. Planting specifications are used to determine the UKHab classification that the newly created habitat would be most likely to fall under.

As per the pre-development calculation, part of the site associated with the construction of a link road through Phase 2a and 2b of the South Wokingham SDL has been excluded from the calculation to avoid 'double counting' (Paragraph 3.3.1).

3.4.2 Habitat Condition

The post-development habitat condition data entered into the calculation tool are based on a 'target condition' which, in accordance with Principle 4 of the Biodiversity Net Gain Good Practice Principles for Development (**Appendix 2**), is considered to be reasonably achievable. What is reasonably achievable has been judged based on consultation with landscapers and the wider design team to understand what management regimen is considered feasible and what conflicting pressures may be experienced by the habitat in question. Target conditions are considered conservative, to account for uncertainty in the delivery.

3.4.3 Strategic Significance

The same plans, strategies and policies identified as relevant to the pre-development calculation are considered relevant to the post-development calculation (Paragraph 3.3.3). These plans, strategies and policies were used to determine whether any post-development habitats are of high strategic significance, and to justify a conclusion of medium strategic significance where relevant.

3.4.4 Assumptions and Limitations

Some assumptions have been made regarding the achievable condition of proposed habitats, these assumptions are set out in the relevant tables in **Appendix 5** and **Appendix 6**.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Introduction

This section sets out a summary of the baseline ecological conditions at the site, supported by a pre-development habitat map (**Map 2**). Full details of the baseline habitats are provided in the Environmental Statement (ECOSA, 2020). This section then establishes the baseline biodiversity units for the site.

4.2 Important Ecological Features

Following the completion of the Ecological Assessment the following Important Ecological Features were identified:

- Hedgerows;
- Bats;
- Badger
- Breeding birds;
- Reptiles;
- Great crested newt;
- European hedgehog;
- Common toad; and
- Invertebrates

These features have been considered in the design the Biodiversity Net Gain solution on site and also inform the strategic significance assessment, where relevant. For full understanding of the Important Ecological Features identified within the scheme please refer to the Ecological Mitigation Strategy (ECOSA, 2025b), which provides the most current baseline information. Although the Biodiversity Net Gain Assessment is based on a historic baseline, the current baseline of the site has been considered in the design of the scheme and the planning of future mitigation and management measures.

4.3 Baseline Habitats

4.3.1 *Habitat Type*

Baseline habitat types for the R10 parcel are shown on **Map 2**. At the time the baseline was established, the R10 parcel was dominated by **cereal crops**. A limited area of '**Developed Land; Sealed Surface**' was present in the west of the parcel which represented Waterloo Road. The road has subsequently been realigned as part of construction of the 'Eastern Gateway' under a separate planning consent.

There are four hedgerows within the parcel. Hedgerow 25 is a '**native hedgerow associated with ditch**' that bisects the parcel east to west, Hedgerow 26 and 27 are **native hedgerows** that form the western and southern boundaries respectively.

Hedgerow 28 is a **native species-rich hedgerow** that forms part of the eastern boundary.

Detailed habitat descriptions for both R10 and the rest of the site are provided in the Environmental Statement (Nexus, 2019). These were converted from Phase 1 habitat types into UKHab types using the guidance set out within the DEFRA Metric 2.0 – Auditing and Accounting for Biodiversity Calculation Tool (Natural England, 2019).

4.3.2 **Habitat Distinctiveness**

Baseline habitat and hedgerow distinctiveness for Parcel R10 is shown on **Map 3** and summarised in **Table 1**.

Table 1: Baseline Habitat and Hedgerow Distinctiveness for the R10 parcel

Distinctiveness	Baseline Habitats and Hedgerows
Very Low	Developed land; sealed surface.
Low	Cereal crops, native hedgerow
Medium	Native hedgerow – associated with bank or ditch, native species rich hedgerow
High	N/A
Very High	N/A

Irreplaceable Habitats

There are no irreplaceable habitats on site.

4.3.3 **Condition Assessment**

Baseline habitat conditions for Parcel R10 are shown in **Map 3**. Cereal crops and developed land; sealed surface are given a default score by the calculation tool. Details of the condition criteria met by each hedgerow within parcel R10 are provided **Appendix 4**. All hedgerows were in good condition when the baseline was established.

4.3.4 **Strategic Significance**

‘Semi-improved grassland’ (which it is considered that other neutral grassland falls under) and hedgerows are habitats covered by the Wokingham Borough Biodiversity Action Plan, and therefore are assigned high strategic significance. There is no ecological justification for considering other habitats to be ecologically desirable. Therefore all habitats on site are assigned low strategic significance (Area/compensation not in local strategy/no local strategy).

4.4 Baseline Biodiversity Units

The pre-development habitat units for the site have been calculated at 13.37 units, and the hedgerow units at 5.47 units. The full calculation is provided within the accompanying statutory biodiversity metric calculation tool (ECOSA, 2025a).

5.0 PROPOSED DESIGN

5.1 Introduction

This section sets out a summary of the proposed post-development ecological conditions at the site, including proposed habitat types and distinctiveness. It provides justification for the assigned conditions and strategic significance values. This section then establishes the post-development biodiversity units for the site.

5.2 Habitat Retention

The site is dominated by cereal crop. As the land will be taken out of agricultural use this will inevitably be lost. The ‘developed land; sealed surface’ habitat on site is associated with a road that was present on the date the pre-development value was calculated but has since been removed as part of road improvement works which do not form part of this application. Therefore this habitat type has also been entirely lost.

Hedgerows on site are proposed to be retained, with the exception of a section of H26 which has already been lost as a result of road improvement works which do not form part of this application. A very small length of H28 may be lost in two places to facilitate footpath links to a proposed subsequent phase of the South Wokingham SDL, however, given that the extent of the gaps (approximately 2 metres each) would not constitute a failure of the condition criteria of the hedgerow, and therefore would not lower the overall condition, this minor loss has not been specifically accounted for in the metric. Hedgerows H27 and H28 will be retained and form a boundary habitat on the edge of the proposed new woodland planting (Paragraph 5.4.1).

Areas of lost and retained habitat are shown on **Map 4**.

5.3 Habitat Enhancement

As the only habitats proposed to be retained are hedgerows, and these are already in good condition and cannot be materially improved, no enhancements of existing habitats are proposed.

5.4 Post-Development Habitats

5.4.1 Habitat Type

Post-development habitats are shown on **Map 4**.

Post-development the centre of the site will be dominated by ‘**developed land; sealed surface**’ in the form of the new residential buildings, as well as associated **vegetated gardens**. **Introduced shrub**, areas of **modified grassland** and **rain gardens** are scattered throughout the developed area. A small area of **mixed scrub** will be planted alongside Hedgerow 25. A **Sustainable Urban Drainage feature** will be created in the

west of the site. The public open space will be dominated by **other neutral grassland**, with areas of **‘other woodland; broadleaved’** planted on the southern and eastern boundaries of the site.

5.4.2 **Habitat Distinctiveness**

Post-development habitat and hedgerow distinctiveness is shown on **Map 6** and summarised in **Table 2**.

Table 2: Post Development Habitat and Hedgerow Distinctiveness

Distinctiveness	Post-Development Habitats and Hedgerows
Very Low	‘Developed land; sealed surface’
Low	Introduced shrub, modified grassland, rain garden, Sustainable Urban Drainage Feature, vegetated garden,
Medium	Mixed scrub, other neutral grassland, ‘other woodland; broadleaved’
High	N/A
Very High	N/A

5.4.3 **Condition Assessment**

Post-development habitat conditions are shown in **Map 6**. Details of the condition criteria met by each anticipated post-development habitat and hedgerow are provided in **Appendix 5** and **Appendix 6** respectively.

5.4.4 **Strategic Significance**

‘Semi-improved grassland’ (which it is considered that other neutral grassland falls under) and hedgerows are habitats covered by the Wokingham Borough Biodiversity Action Plan, and therefore are assigned high strategic significance. Woodland and urban trees on site have also been assigned high strategic significance as the creation of these habitats achieve the objectives of policy SE03 of the Thames Valley NCA. There is no ecological justification for considering other habitats to be ecologically desirable. Therefore all habitats on site are assigned low strategic significance (Area/compensation not in local strategy/no local strategy).

5.5 **Post-Development Biodiversity Units**

The post-development habitat units for the site have been assessed as being 14.09, and the hedgerow units as 10.19. The full calculation provided within the accompanying statutory biodiversity metric calculation tool

6.0 RESULTS AND CONCLUSIONS

6.1 Results

6.1.1 Metric Output

The baseline biodiversity units for the site are 13.37 habitat units and 5.47 hedgerow units. The anticipated post-development biodiversity units for the site are 14.09 habitat units and 10.18 hedgerow units.

This represents a net gain of 0.72 habitat units and 4.72 hedgerow units which is a gain of **5.42% habitat units and 86.29% hedgerow units**. This leaves a deficit of 0.608 habitats units to match the overall scheme goal of 10% net gain.

6.1.2 Compliance with Metric Rules and Best Practice Principles

The metric assessment calculates biodiversity value both prior to and post-intervention and there is no 'trading down'. No irreplaceable or very high distinctiveness habitats are being lost. Habitat and hedgerow units are not summed, traded or converted. Habitat compensation has accounted for risks and is not done on an area/length basis. There are no deviations from the published methodology of the Biodiversity Metric 3.1. The assessment complies with best practice principles (**Appendix 3**).

6.1.3 Implementation

In order to ensure that the proposed habitat types are established and maintained in the condition targeted within the metric, an appropriate plan for implementation of the measures set out in this document during the construction phase, as well as a management and monitoring plan for a minimum period of 30 years (Pegasus Group, 2025) will be provided as a condition of any planning consent.

6.2 Conclusion

The calculation indicates that parcel R10 will meet the target of 10% gain in relation to hedgerows on site, but not in relation to habitat units. The deficit of habitat units will be made up for in other areas of the scheme.

7.0 REFERENCES

Aspect Ecology, 2022. *South Wokingham Revised Biodiversity Net Gain Assessment - Reference 6087 TN05 SWBNG dv1*, Banbury: Aspect Ecology.

CIEEM, 2016. *Biodiversity Net Gain Good Practice Principles for Development*, Winchester: CIEEM.

CIEEM, 2017. *Guidelines for Ecological Report Writing*. 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2021. *Biodiversity Net Gain Report and Audit Templates*, Winchester: Chartered Institute of Ecology and Environmental Management.

Crosher, I. et al., 2019. *The Biodiversity Metric 2.0: Auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019)*, s.l.: Natural England.

DEFRA, 2024c. *Statutory Biodiversity Metric Calculation Tool*. [Online]
Available at:
https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fmedia%2F669e4670ab418ab055592a23%2FThe_Statutory_Biodiversity_Metric_Calculation_Tool_-_Macro_enabled_tool_23.07.2024.xlsm&wdOrigin=BROWSELINK
[Accessed 29 July 2024].

ECOSA, 2020. *Land at Phase 2 of the South Wokingham Strategic Development Location - Biodiversity Net Gain Assessment*, North Baddesley: ECOSA.

ECOSA, 2025a. *Parcel R10, Phase 2b of the South Wokingham Strategic Development Land - DEFRA Metric 3.1 – Auditing and Accounting for Biodiversity Calculation Tool*, North Baddesley: ECOSA.

ECOSA, 2025b. *Parcel R10, Phase 2B of the South Wokingham Strategic Development Location - Ecological Mitigation Strategy*, North Baddesley: ECOSA.

European Environment Agency (EEA), 2019. *EUNIS habitat type hierarchical view*. [Online]
Available at: https://eunis.eea.europa.eu/habitats-code-browser.jsp?expand=A#level_A

JNCC, 2010. *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Peterborough: Joint Nature Conservation Committee.

Natural England, 2019. *Archive Site for Legacy Biodiversity Metrics*. [Online]

Available at:

<https://publications.naturalengland.org.uk/publication/5850908674228224>

[Accessed 17 March 2025].

Natural England, 2022. *Biodiversity Metric 3.1 - Auditing and accounting for biodiversity - User Guide*. [Online]

Available at:

<https://publications.naturalengland.org.uk/publication/5850908674228224>

[Accessed 17 March 2025].

Natural England, n.d. *National Character Area 115 - Thames Valley - Detailed Statements of Environmental Opportunity*. [Online]

Available at: <https://nationalcharacterareas.co.uk/thames-valley/statement-of-environmental-opportunity/>

[Accessed 17 March 2025].

Nexus, 2019. *Land at Phase 2 of the South Wokingham Strategic Development Location Project Site - Environmental Statement (Chapter 14)*, Reading: Nexus.

Panks, S. et al., 2022. *Biodiversity Metric 3: Auditing and accounting for biodiversity - Technical Supplement*, s.l.: Natural England.

Pegasus Group, 2025. *Parcel R10 Phase 2b of the South Wokingham Strategic Development Location - Landscape & Ecological Management Plan*, Cirencester: Pegasus Group.

Royal Borough of Windsor and Maidenhead, n.d. *Berkshire's Local Nature Recovery Strategy*. [Online]

Available at: <https://rbwmtogether.rbwm.gov.uk/berkshire-local-nature-recovery-strategy>

[Accessed 17 March 2025].

UK Technical Advisory Group (UKTAG), 2003. *UK Technical Advisory Group on the Water Framework Directive Guidance on Typology for Lakes for the UK (Draft)*.

[Online]

Available at:

https://wfd.uk.org/sites/default/files/Media/Characterisation%20of%20the%20water%20environment/Lakes%20typology_Final_010604.pdf

UKHab Ltd, 2023. *UK Habitat Classification Version 2.0*. [Online]

Available at: <https://www.ukhab.org>

[Accessed 30 August 2023].

Wokingham Borough Council, 2014. *Biodiversity Action Plan 2012-2024 (DRAFT)*.

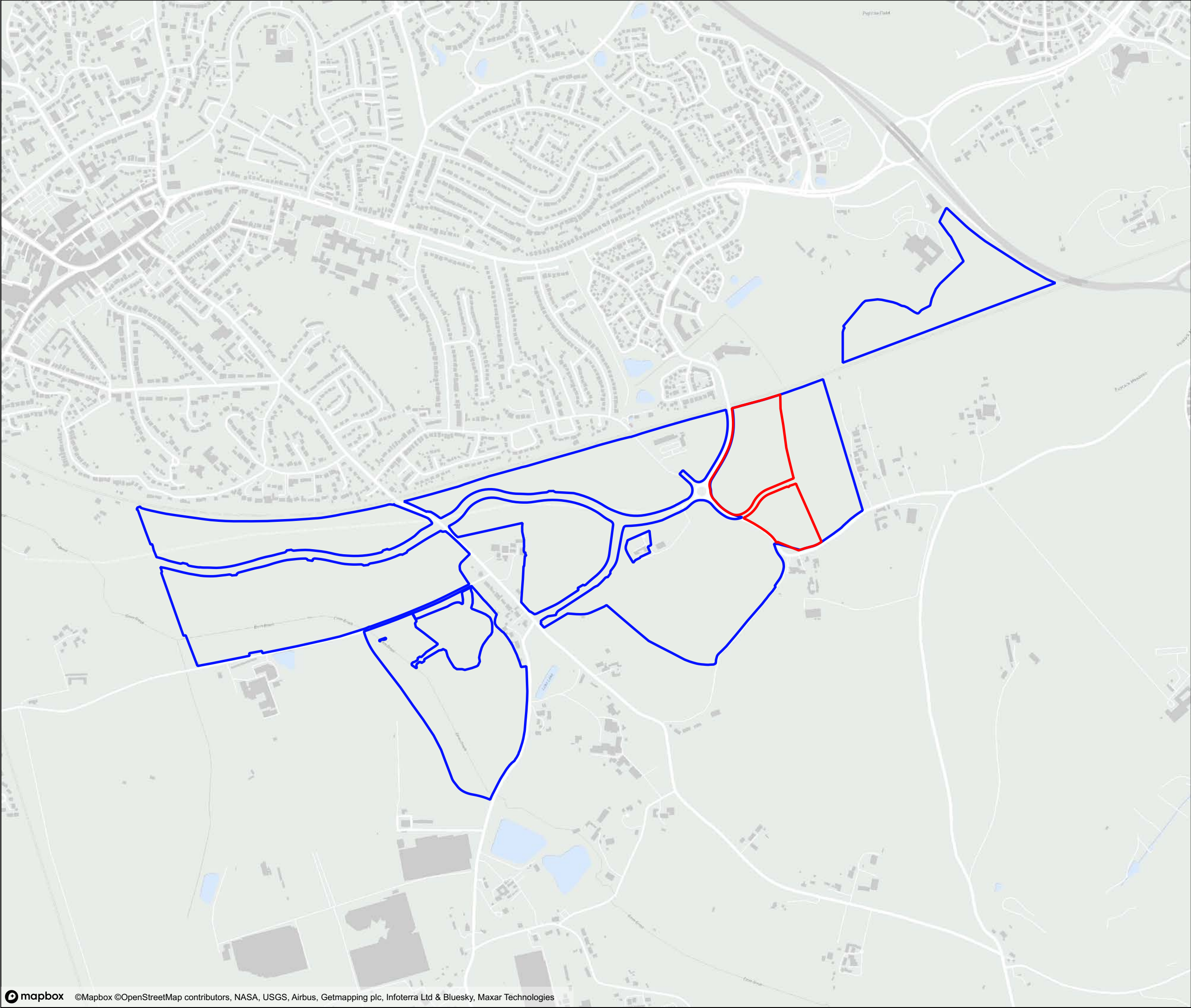
[Online]

Available at: <https://wokingham.moderngov.co.uk/Data/Executive%20->

[%20Individual%20Member%20Decisions/201402180945/Agenda/266687.pdf](https://wokingham.moderngov.co.uk/Data/Executive%20-%20Individual%20Member%20Decisions/201402180945/Agenda/266687.pdf)

[Accessed 17 March 2025].

Map 1 Site Location Plan



**R10, SOUTH WOKINGHAM,
BERKSHIRE**

BIODIVERSITY NET GAIN ASSESSMENT

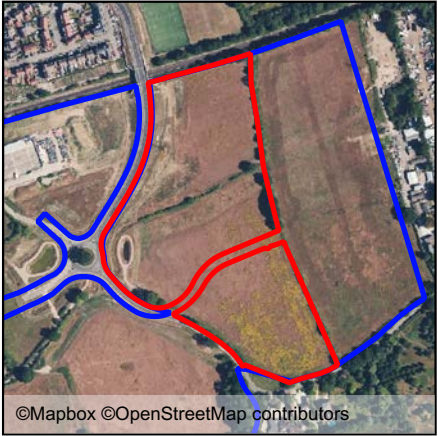
Map 1 - Site Location Plan

Client:	Kingacre Estates Limited
Date:	June 2025
Status:	Draft

KEY

Site Boundary

Wider South Wokingham Boundary



Scale at A3 1:10,000

0 100 200 300 400 m

Prepared by: JP	Date: 210225
Last amended by: JP	Date: 300625

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company

ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

Map 2 Baseline Habitats



R10, SOUTH WOKINGHAM,
BERKSHIRE

BIODIVERSITY NET GAIN ASSESSMENT

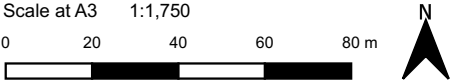
Map 2 - Baseline Habitats

Client:	Kingacre Estates Limited
Date:	June 2025
Status:	Draft

KEY

- Site Boundary
- BNG Assessment Boundary
- Link Road for Phase 2a and 2b of the South Wokingham SDL
- Cereal crops
- Developed land; sealed surface
- Native Hedgerow (h2NE5)
- Native Hedgerow - Associated with bank or ditch (h2NE9)
- Native Species Rich Hedgerow (h2NE2)

While the aerial imagery shows the habitats on site at present, our data is accurate according to when the baseline was fixed in 2020. Please refer to the report for further details.



Prepared by: JP	Date: 210225
Last amended by: JP	Date: 300625

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company

ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

Map 3 Baseline Condition and Distinctiveness



**R10, SOUTH WOKINGHAM,
BERKSHIRE**

BIODIVERSITY NET GAIN ASSESSMENT

Map 3 - Baseline Habitats Condition and Distinctiveness

Client:	Kingacre Estates Limited
Date:	June 2025
Status:	Draft

KEY

- Site Boundary
- BNG Assessment Boundary
- Link Road for Phase 2a and 2b of the South Wokingham SDL

Condition

- N/A - Other
- Good

Distinctiveness

- Low
- V.Low
- Medium
- Low

While the aerial imagery shows the habitats on site at present, our data is accurate according to when the baseline was fixed in 2020. Please refer to the report for further details.

Scale at A3 1:1,750
0 20 40 60 80 m



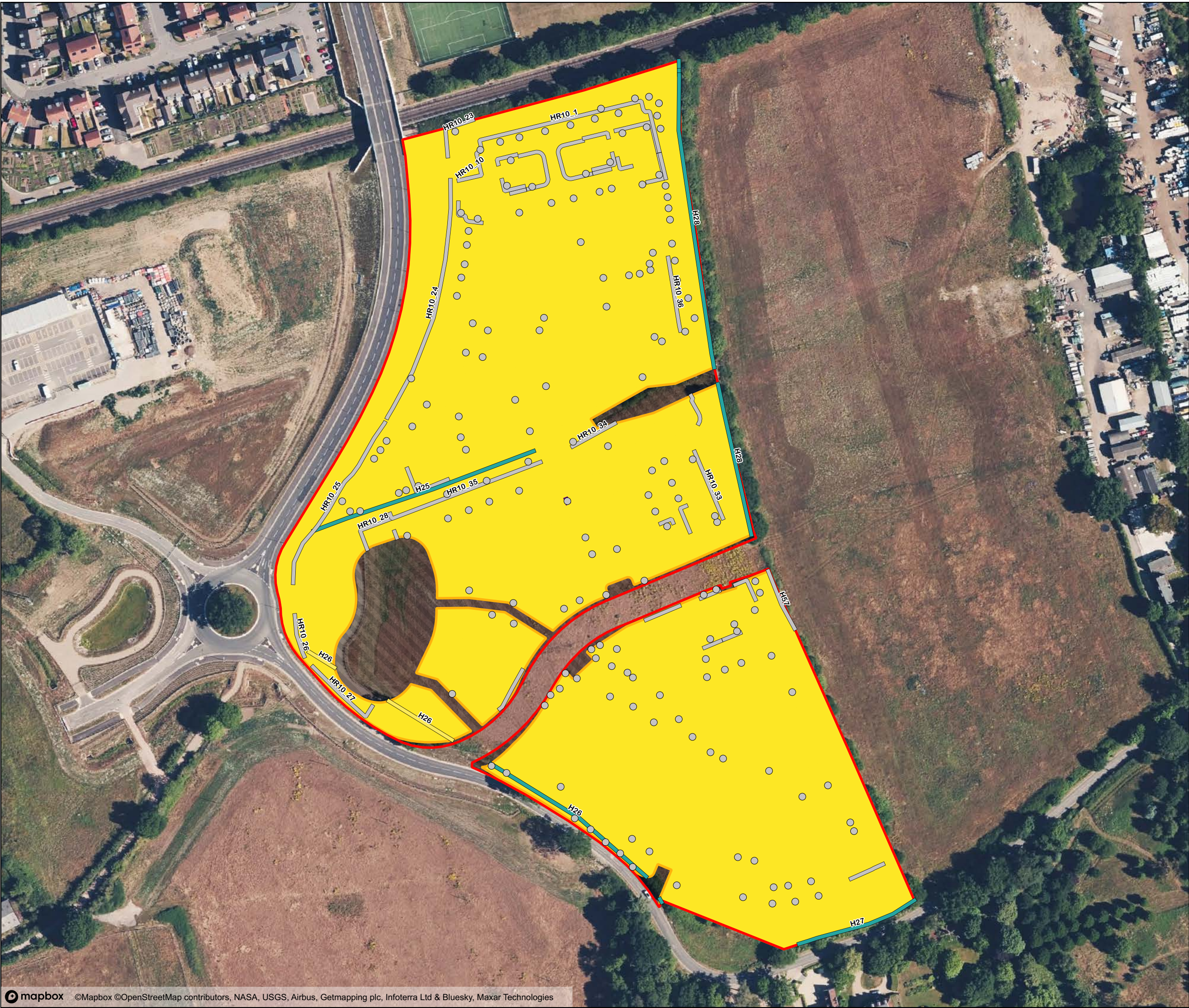
Prepared by: JP	Date: 210225
Last amended by: JP	Date: 300625



ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

Map 4 Habitat Retention



R10, SOUTH WOKINGHAM, BERKSHIRE

BIODIVERSITY NET GAIN ASSESSMENT

Map 4 - Habitat Retention

Client:	Kingacre Estates Limited
Date:	June 2025
Status:	Draft

KEY

Site Boundary

BNG Assessment Boundary

Link Road for Phase 2a and 2b of the South Wokingham SDL

Habitats

Enhanced

Lost

Hedgerows

Created

Retained

Lost

Urban Trees

Created

Scale at A3 1:1,750

020406080 m

N

Prepared by: JP	Date: 210225
Last amended by: JP	Date: 300625

ECOSA

Ecological Survey & Assessment

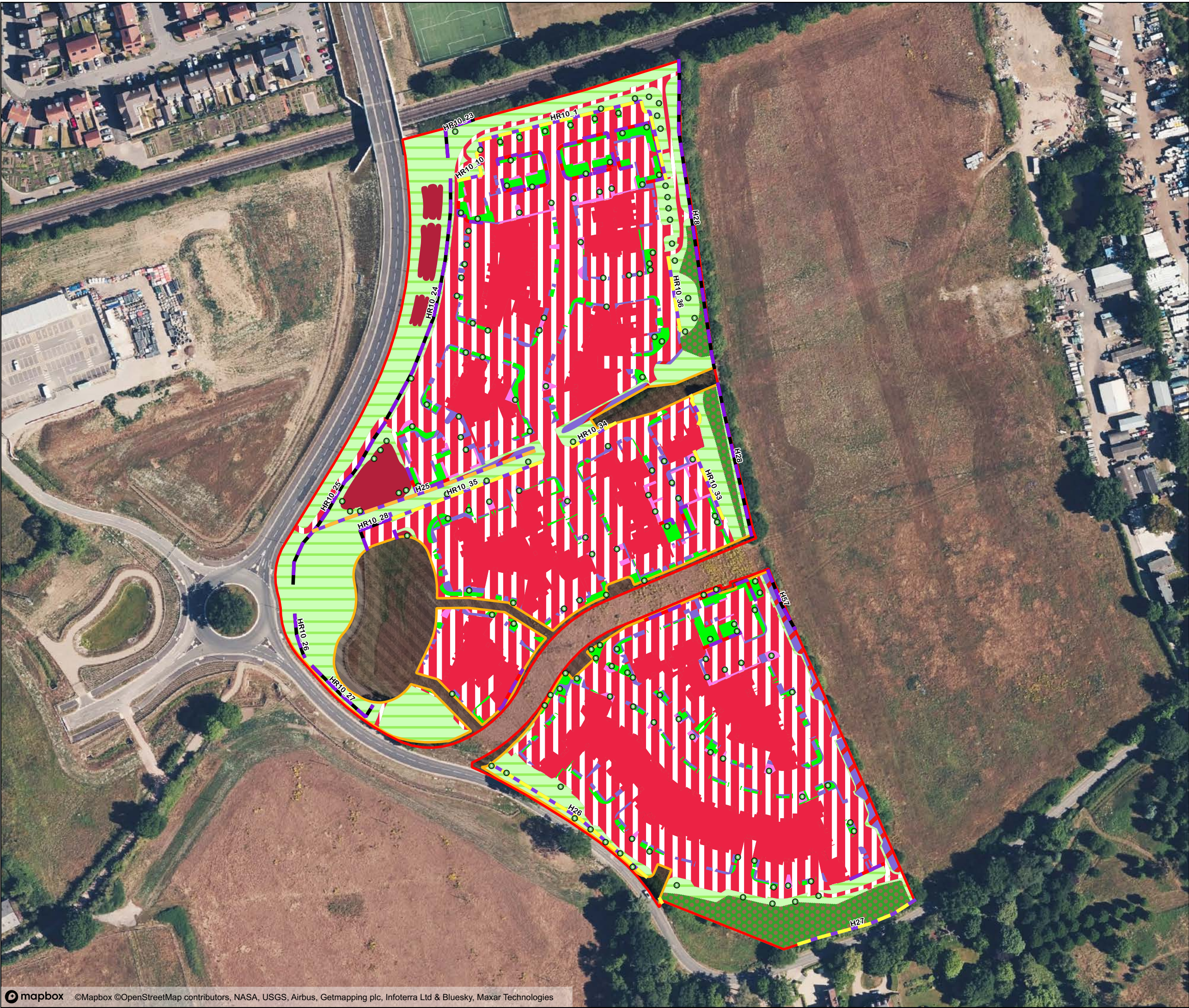
A Trinity Consultants Company

ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

mapbox ©Mapbox ©OpenStreetMap contributors, NASA, USGS, Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies

Map 5 Post-Development Habitats



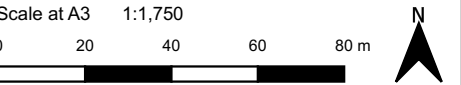
R10, SOUTH WOKINGHAM,
BERKSHIRE

BIODIVERSITY NET GAIN ASSESSMENT

Map 5 - Post-development Habitats

Client:	Kingacre Estates Limited
Date:	June 2025
Status:	Draft

- KEY**
- Site Boundary
 - BNG Assessment Boundary
 - Link Road for Phase 2a and 2b of the South Wokingham SDL
 - Developed land; sealed surface
 - Introduced shrub
 - Mixed scrub
 - Modified grassland
 - Other neutral grassland
 - Other woodland; broadleaved
 - Rain garden
 - Sustainable urban drainage feature
 - Vegetated garden
 - Hedge Ornamental Non Native (h2NE3)
 - Native Hedgerow (h2NE5)
 - Native Hedgerow - Associated with bank or ditch (h2NE9)
 - Native Species Rich Hedgerow (h2NE2)
 - Proposed Small



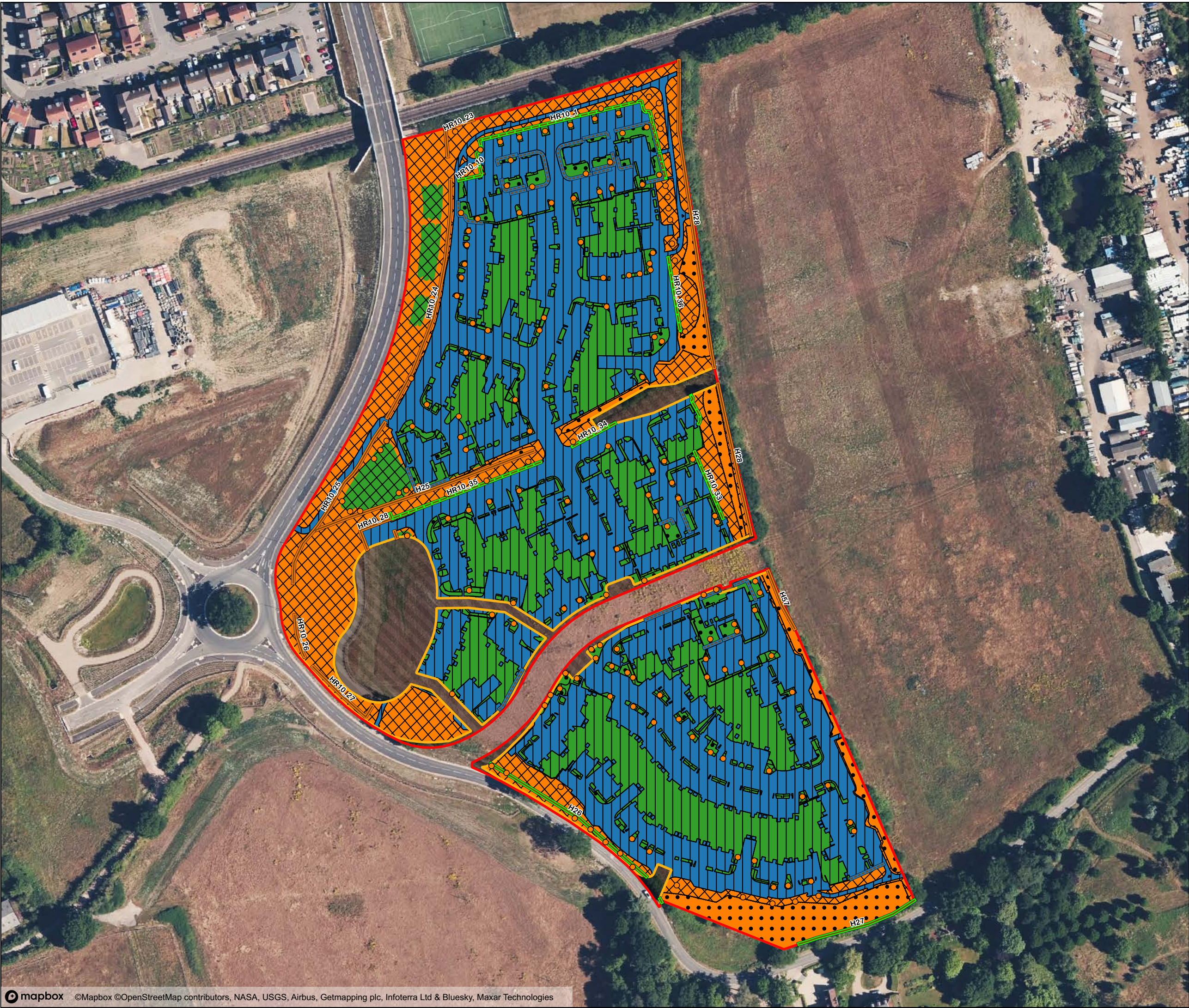
Prepared by: JP	Date: 210225
Last amended by: JP	Date: 300625

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company

ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

Map 6 Post-Development Condition and Distinctiveness



R10, SOUTH WOKINGHAM, BERKSHIRE

BIODIVERSITY NET GAIN ASSESSMENT

Map 6 - Post-development Habitats Condition and Distinctiveness

Client: Kingacre Estates Limited

Date: June 2025

Status: Draft

KEY

Site Boundary

BNG Assessment Boundary

Link Road for Phase 2a and 2b of the South Wokingham SDL

Moderate

Poor

N/A / Other

Good

Moderate

Poor

Moderate

Medium

Low

V.Low

Medium

Low

V.Low

Scale at A3 1:1,750

020406080 m

N

Prepared by: JP

Date: 210225

Last amended by: JP

Date: 300625

ECOSA

Ecological Survey & Assessment

A Trinity Consultants Company

ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

© This map is the copyright of Ecological Survey & Assessment Ltd.
Any unauthorised reproduction or usage by any person is prohibited.

mapbox ©Mapbox ©OpenStreetMap contributors, NASA, USGS, Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies