

**Tiryns
Forest Road
Wokingham
Berkshire
RG40 5QR**

Biodiversity Net Gain Assessment

Ref.: R2628_BNG_a

Report Quality Control Information	
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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Bowen Evans Consultancy, on behalf of Mr Billy Mead to provide a Biodiversity Net Gain (BNG) Assessment for the land at Tiryns in Wokingham. The assessment was commissioned to accompany a full planning application to be submitted to Wokingham Borough Council for the construction of a new dwelling and associated landscaping onsite, following the demolition of the existing dwelling and three outbuildings onsite.
- 1.1.2** This report follows a GCN Habitat Assessment (JWEC; May 2024; R2628_GCN_a), a Preliminary Roost Assessment (PRA) (JWEC; March 2024; R2628_PRA_a) and further bat emergence surveys by Urban Tree Experts in May and June 2024 (Ref: SPH/ESR-24/02.06).
- 1.1.3** The baseline habitats for the site comprise: artificial unvegetated, unsealed surface (u1c), developed land; sealed surface (u1b); buildings (u1b5), built linear features (u1e); vegetated garden (u1 - 818), ornamental pond (r1g) and scattered trees (32).
- 1.1.4** The proposed habitats are derived from the Site Layout plan and comprise largely retained habitats in the same condition and newly created habitats, in the form of: developed land; sealed surface and buildings (u1 & u1b5), vegetated garden (u1 - 828), artificial unvegetated, unsealed surface (u1c), unvegetated garden (u1 - 829) on previously on previously developed land and buildings (u1b & u1b5) and vegetated garden (u1 - 828).
- 1.1.5** The Biodiversity Metric calculation tool demonstrates that a net gain in biodiversity cannot be achieved as part of the proposed redevelopment within the site boundary. The tool gives a total onsite net change of -2.86 % and a change of -0.12 in habitat units. The 'Tiryns – Statutory Biodiversity Metric (R2628_BNG_a)' document should be referred to separately for the full calculation. The tool demonstrates that in order to achieve a 10 % net gain there will be a deficit of 0.55 habitat units which will need to be offset by purchasing offsite units.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was instructed by Bowen Evans Consultancy, on behalf of Mr Billy Mead to provide a Biodiversity Net Gain (BNG) Assessment for the land at Tiryns along Forest Road in Wokingham, to accompany a full planning application seeking consent for construction of a new dwelling and associated landscaping onsite, following the demolition of existing dwelling and three outbuildings onsite.

2.1.2 This report follows a GCN Habitat Assessment (JWEC; May 2024; R2628_GC_N_a) and a Preliminary Roost Assessment (PRA) (JWEC; March 2024; R2628_PRA_a) and further bat emergence surveys by Urban Tree Experts in May and June 2024 (Ref: SPH/ESR-24/02.06).

2.2 Site Location and Context

2.2.1 The site is a 1.05ha residential plot located south of Forest Road, in a semi-rural area north of Wokingham (central OS grid reference: SU 80628 70943). The site comprises a residential detached house with typical garden habitats, including a walled garden with formal and informal lawn, ornamental pond, scattered trees and shrubs, and plant beds.

2.2.2 The site is surrounded by open grassland and arable farmland, divided by linear hedgerows, with scattered trees and areas of priority deciduous woodland. There are nearby waterbodies approximately 50m to the north and 170m to the east of the site boundary. Dinton Pastures Country Park, containing multiple waterbodies including the River Loddon is approximately 2,500m west of the property.

2.3 Objectives

2.3.1 The aim of this BNG Assessment is to determine if a minimum of 10% on-site net gain in biodiversity can be achieved as part of the proposed development. The key objectives are to:

- detail the approach taken for the BNG calculation (i.e. the Statutory Biodiversity Metric);
- describe and map the baseline habitats and important ecological features on site;
- describe and map the proposed habitats based on post-development design;
- complete the biodiversity metric tool with supporting condition assessment

sheets; and

- outline the implementation of the design concepts and the long-term management to deliver BNG.

2.3.2 This BNG Assessment report should be read in conjunction with the completed Statutory Biodiversity Metric calculation tool and habitat condition assessment documents.

3 POLICY BACKGROUND

3.1 National Planning Policy

3.1.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England.

3.1.2 The National Planning Policy Framework (NPPF), published in December 2023, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach LPAs should adopt to conserve and enhance the natural environment when determining planning applications. The selection of excerpts taken from Section 15 refer to Biodiversity Net Gain (BNG) as follows:

Paragraph 180. Planning policies and decisions should contribute to and enhance the natural and local environment by: [...] 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 [...]

Paragraph 185. To protect and enhance biodiversity and geodiversity, plans should: [...] 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 186. When determining planning applications, local planning authorities should apply the following principles: [...] 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 [...]

3.1.3 In England, BNG became mandatory for major development from the 12th February 2024 and for minor development (small sites) from the 2nd April 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). In practice, planning permission in England is now subject to a

condition to secure a minimum 10% net gain for biodiversity, unless the development is a type that is exempt from mandatory BNG requirements.

3.2 Local Planning Policy

3.2.1 Wokingham Borough Council website states that once planning permission is granted, a plan to create at least a 10% improvement of biodiversity, from the baseline assessment, will need to be provided.

3.2.2 The Wokingham Borough Council website states that *'Information about the existing biodiversity on site, sometimes called a baseline assessment, will need to be submitted by applicants. If planning permission is granted, a plan to create at least a 10% improvement of biodiversity, from the baseline assessment, will need to be provided. The biodiversity net gain requirement has been agreed by the Government and is additional to existing local and national policy and guidance. If permission is granted then a statutory condition, called the General Biodiversity Gain Condition, is applied – this condition cannot be changed or removed. A metric has been developed by the Government that will allow all the relevant information to be submitted. The metric tool will help work out the value of the biodiversity on the site and measure this in 'units'. This will mean the 10% increase in 'units' can be shown as part of a planning application. The metric will need to be supported with other information including whether if the increase in biodiversity will be provided on or off site and/or if there is an exceptional ecological reason to not follow the metric. Where the improvement to biodiversity is provided on the site, it is expected this will be in place for a minimum of 30 years and will be monitored over this time. The Council will likely use planning conditions or a legal agreement to make sure this is the case. The Council will also have to provide a report on the status of biodiversity net gain at least every five years. Where the improvement to biodiversity is provided off the site, a legal agreement will be required to secure this, and the improvement will need to be registered with Natural England. If it isn't possible to provide biodiversity improvement on or off the site, it will be possible to purchase 'credits' from the government.'*

4 METHODOLOGY

4.1 Baseline Information

Desk Study

4.1.1 A desktop study was conducted by Vicky Potts – an experienced Senior Ecologist and full member of CIEEM – before and after visiting the site. The study utilised data from the local environmental records centre and online resources to acquire information on the nature of the site and its surroundings and highlight any potential ecological features.

4.1.2 The Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of GCN records for land within a 1km radius of the site.

4.1.3 The DEFRA Data Services Platform was used to obtain geospatial datasets for designated sites (i.e., RAMSAR, SPA, SAC, SSSI) and habitat inventories (i.e., Priority Habitat Inventory, Ancient Woodland Inventory) to be analysed in QGIS. The Multi-Agency Geographical Information Centre (MAGIC) website was examined for granted European Protected Species (EPS) licence applications. Furthermore, open access geospatial datasets and Google Earth satellite imagery were used to determine the extent and connectivity of habitats, how the site is linked to the surrounding landscape and whether the development could have wider scale impacts on biodiversity.

4.1.4 Google Earth satellite imagery was consulted to provide insight into historic and current land use; such information helps contextualise the continuity of habitats and determine the importance of existing ecological features.

UK Habitat Classification

4.1.5 A site walkover was undertaken on 19th November 2024 by John Wenman MCIEEM. The site was surveyed using the UK Habitat Classification (UKHab) system (UKHab Ltd 2023) in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM 2017). Particular attention was given to evidence of protected and priority species (NERC Act 2006 Section 41 species of principal importance) and the site's potential to support such species. Habitat condition assessments were carried out in accordance with the Statutory Biodiversity Metric (February 2024).

Biodiversity Net Gain Approach

4.1.6 This Biodiversity Net Gain (BNG) Assessment uses the Statutory Biodiversity Metric (February 2024) to calculate the losses and gains in biodiversity unit value resulting from the proposed redevelopment. The biodiversity metric tool has been used to guide the proposed site layout and landscaping in order to deliver a minimum 10% net gain for biodiversity.

4.1.7 The biodiversity metric rules must be followed for a valid biodiversity net gain and are as follows:

***Rule 1:** The trading rules of this biodiversity metric must be followed.*

***Rule 2:** Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.*

***Rule 3:** To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.*

The tools remove the need for a user to manually calculate the change in biodiversity value.

The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.

***Rule 4:** In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.*

4.1.8 The biodiversity metric principles inform the use of the biodiversity metric tool and are as follows:

***Principle 1:** The metric assessment should be completed by a competent person.*

***Principle 2:** The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.*

***Principle 3:** This biodiversity metric should be used in accordance with established*

good practice guidance and professional codes.

Principle 4: *This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.*

Principle 5: *Biodiversity units are a proxy for biodiversity and should be treated as relative values.*

Principle 6: *This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.*

Principle 7: *Habitat interventions need to be realistic and deliverable within a relevant project timeframe.*

Principle 8: *Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.*

Principle 9: *This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:*

- *maintain habitat extent - supporting more, bigger, better and more joined up ecological networks*
- *ensure that proposed or retained habitat parcels are of sufficient size for ecological function'*

5 BASELINE INFORMATION

5.1 Desk Study

Designated Sites and Priority Habitats

- 5.1.1** The desk study data highlighted one internationally designated Special Protection Area (SPA) which was over 5km from the site: Thames Basin Heaths SPA. The desk study highlighted one nationally designated statutory site within a 2km radius of the site Holt and Joel Copse Local Nature Reserve (LNR) approximately 1.4km to the south of the site.
- 5.1.2** The site falls within the Impact Risk Zone (IRZ) for several Sites of Special Scientific Interest including: Lodge Mill and Sandford Mill SSSI, Longmoor Bog SSSI, Heath Lake SSSI and Wykery Copse SSSI. The sites are all over 3km to the site with the closest being Lodge Mill and Sandford Mill SSSI 3191m to the northwest.
- 5.1.3** The application site contains no irreplaceable habitats (e.g. Ancient Semi-natural Woodland) or priority habitats (NERC Act 2006 Section 41 habitats of principle importance). A patch of woodpasture and parkland, and deciduous woodland – habitats of principle importance - is situated opposite, across Forest Road to the north of the house.

Protected and Notable Species

- 5.1.4** A search on MAGIC revealed five bat mitigation licences have been granted within a 2-kilometre radius of the application site, covering licensable works affecting the following species: soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*) and noctule (*Nyctalus noctula*). The closest licence was for the destruction of a resting place and breeding site for noctule, 900m southwest of the site (Case ref.: 2016-24486-EPS-MIT).
- 5.1.5** The residential house, attached garages and detached outbuilding at Tiryns were assigned moderate potential suitability for bats by John Wenman Ecological Consultancy. Further surveys undertaken by Urban Tree Experts in May and June 2024 recorded no bats roosting in the house (Ref: SPH/ESR-24/02.06). Soprano pipistrelle, common pipistrelle, noctule and brown long eared bats were all recorded in flight onsite.

- 5.1.6** The semi-rural farmland area surrounding the property, with linear hedgerows, scattered trees and parcels of priority habitat deciduous woodland, provide continuous habitat that could be used as a flight-path connecting to high-quality foraging habitats for any bat(s) roosting nearby. A sensitive lighting scheme was recommended to avoid any potential additional negative impacts on foraging and commuting bats using adjacent habitats
- 5.1.7** The GCN habitat assessment undertaken by John Wenman Ecological Consultancy revealed that the application site falls within a 'Red' GCN Habitat Zone – these zones contain suitable habitat and are the most important areas for GCN (except areas that are nationally important sites designated for GCNs). The walkover survey found one waterbody in the application site, however it was a small ornamental pond which was confirmed to be negative for the presence of GCNs from an eDNA sample taken and it was assessed as below average suitability for GCN (HSI assessment). The garden offers terrestrial habitat of moderate value to GCN for foraging and shelter, although the habitats to be impacted were primarily the existing building footprint and areas of gravel and patio (i.e. terrestrial habitats of negligible value to GCN). The Natural England GCN Rapid Risk Assessment Tool was used to assess the risk of the development proposals adversely affecting GCN and it was considered highly unlikely that the proposed works would result in an offence. However, in the absence of mitigation there is a risk that individual GCNs could potentially be injured and/or killed during the construction activities if traversing across the habitats on site. To avoid this, reasonable avoidance measures for reptiles were recommended to ensure there was no breach of the legislation protecting these animal groups.
- 5.1.8** No further protected species such as badger (*Meles meles*) were observed during the walkover surveys.

5.2 Baseline Habitats Onsite

- 5.2.1** The baseline habitats for the site comprise: artificial unvegetated, unsealed surface (u1c), developed land; sealed surface (u1b); buildings (u1b5), built linear features (u1e); vegetated garden (u1 - 818), ornamental pond (r1g) and scattered trees (32) – refer to **Figure 1** below.



Figure 1. Baseline Habitats Plan

5.2.2 Condition assessments of each habitat, where applicable, were completed and detailed in a separate document (Tiryns; Habitat Condition Assessments; R2628_BNG_a) and the following was noted:

- Baseline condition assessments were defined as: Pond – poor; and Scattered trees (12) - Good.
- As per the Statutory Biodiversity Metric user guide (July 2024), only medium, large and very large individual trees are recorded within private gardens in the metric and have been grouped as all are found within the perimeter of urban land.

5.3 Proposed Habitats Onsite

5.3.1 The post-development habitat onsite is derived from the Site Layout plan (refer to **Appendix 1**) and includes the following minor changes – refer to **Figure 2** below:

- Alterations to the footprint of the Developed land sealed surfaces; Buildings; Vegetated garden; and Artificial, unvegetated unsealed surface, changing to Buildings; Unvegetated garden; and Vegetated garden onsite;
- As per the Statutory Biodiversity Metric user guide (July 2024), the post-development garden has no public access and biodiversity net gains cannot be

legally secured, therefore private gardens must be recorded as either urban – vegetated garden; or urban – unvegetated garden.



Figure 2. Post-Development Habitat Plan

5.4 Calculation Result

- 5.4.1** The Biodiversity Metric calculation tool demonstrates that the feasibility of delivering a minimum of 10% onsite net gain for biodiversity is not possible within the scope of the proposals – see metric calculation tool enclosed separately (Tiryns – Statutory Biodiversity Metric; R2628_BNG_a). The final results taken from the tool gives a total onsite net gain of -2.86 % and a -0.12 change in habitat units. In order to achieve a biodiversity net gain offsite units will need to be purchased to cover the deficit of 0.55 habitat units – see **Figure 3** below.

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.12		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-2.86%		
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	4.27	4.70	0.55
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00

Figure 3. Final Results taken from the Statutory Biodiversity Metric calculation tool.

6 REFERENCES

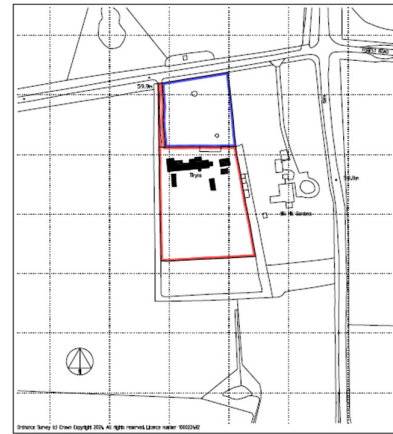
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Location Plan - Scale 1:1250



REPLACEMENT DWELLING AT
TRYFINS FOREST ROAD
WIDENINGHAM ROAD SQR

FOR:
Mr & Mrs. MEAD

SCHEME PROPOSALS

Location & Site Plan

SCALE:	DATE:	REF:
As noted	Oct 2024	23-104-10A

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