

BLADE

BIODIVERSITY NET GAIN REPORT

LAND SOUTH OF BRIDGE FARM ESTATE,
READING ROAD, ARBORFIELD

ON BEHALF OF

TUNGSTEN PROPERTIES

NOVEMBER 2024

V1

BIODIVERSITY
LANDSCAPE
ARBORICULTURE
DESIGN
ECOLOGY

Report Data	
Title	Biodiversity Net Gain Report
Site Address	Land south of Bridge Farm Estate, Reading Road, Arborfield
Client	Tungsten Properties
Blade Reference	201-E-RP-PL-1737BNR
Author	E. Seaton BSc (Hons) MCIEEM

Version	Author	Date Issued
V1	E. Seaton BSc (Hons) MCIEEM	20 November 2024

Disclosure:

This document has been prepared by BLADE Ecology Ltd. for the sole use of the commissioning client/s. It has been provided in accordance with the agreed scope and intended purpose. No other warranty is made as to the professional advice included in this document. It does not purport to give legal advice.

This report should not be copied or relied upon by any third party without the express prior written agreement of BLADE Ecology Ltd. and the commissioning client/s.

Where any appraisal is based upon information provided by third parties, it is assumed that this information is relevant, correct and complete; there has been no independent verification of information obtained from third parties unless otherwise stated. Where field investigations have been carried out these have been appropriate to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives.



CONTENTS

1.0	Introduction.....	1
	Background to the Development.....	1
	Previous Survey Work and Ecological Baseline.....	2
	Survey Objectives.....	2
2.0	Biodiversity Net Gain and Planning Policy	3
	Biodiversity Net Gain.....	3
	National Planning Policy.....	5
	Legislation	7
3.0	Methodology	8
	Condition Assessments	8
	Calculating Biodiversity Units.....	8
4.0	Results	9
	Habitat Creation.....	9
	Habitat Enhancement	10
	Biodiversity Unit Calculations	10
5.0	References	11

APPENDIX A Plans

APPENDIX B Qualifications and Experience

1.0 INTRODUCTION

Background to the Development

- 1.1 BLADE Ecology Ltd was commissioned by Tungsten Properties to complete a Biodiversity Net Gain Report for a s.73 application at the land south of Bridge Farm Estate, Arborfield (centred on Ordnance Survey grid reference SU 75007 67261.).
- 1.2 This document has been produced to address the mandatory requirements for BNG under Schedule 7a of The Town and Country Planning Act 1990 (as inserted by Schedule 14 of The Environment Act 2021).
- 1.3 The application site boundary is shown in Figure 1.



Figure 1: Application Site Boundary

Outline planning consent was granted by Wokingham Borough Council for the 'erection of up to 11No commercial units to provide 6,986sqm GIA commercial/employment predominantly within Class B8 and/or Class E(g) uses with supporting facilities within Class E uses comprising ancillary offices, trade counters and food/drink facilities with highway works and strategic landscaping (application number: 223083) on 2 February 2024.

Previous Survey Work and Ecological Baseline

The baseline for the site has been taken from the approved reports produced by ACD Environmental to support the outline application. This includes habitat classification, habitat areas, condition assessments and strategic significance of habitats.

- 1.4 Proposed habitat conditions are also of that specified within the original application by ACD Environmental but have been remapped in line with the landscape strategy produced by BLADE Landscape Architects Ltd.
- 1.5 The redline has been extended from the original baseline measurements to incorporate the road access. This has added an additional 0.16ha of developed land; sealed surface (road) and 0.05ha of modified grassland (verge). Both are to be retained.

Survey Objectives

- 1.6 The objectives of the report are to:
 - Calculate baseline for existing habitat and hedgerow units for the site using habitats, condition assessments and strategic significance provided by ACD Environmental.
 - Inform the updated landscape strategy in line with the mitigation hierarchy, Biodiversity Net Gain hierarchy, and Biodiversity Net Gain: Good Practice Principles for Development (Baker et al., 2019).
 - Calculate the finalised Biodiversity Net Gain position to support the s.73 application.

2.0 BIODIVERSITY NET GAIN AND PLANNING POLICY

Biodiversity Net Gain

- 2.1 Biodiversity Net Gain (BNG) is defined as 'development that leaves biodiversity in a better state than before, and an approach where developers work with local governance, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation'.
- 2.2 In 2016, the BNG: Good practice principles for development was published to support developments across the UK achieve BNG in accordance with good practice. These principles aimed to set a benchmark of 'what good looks like' and they include the mitigation hierarchy and avoiding impacts of irreplaceable habitats. In 2019, the principles were supplemented with practical guidance on designing, implementing and the long-term maintenance and monitoring of BNG through the project lifecycle.
- 2.3 Good practice principles for biodiversity net gain are set out within Table 1.1 of Biodiversity Net Gain: Good Practice Principles for Development (Baker et al., 2019):

Table 1: The UK's good practice principles for biodiversity net gain (after Baker, 2016)

Principle	In Practice
Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensating for losses with the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
Avoid losing biodiversity that cannot be offset elsewhere	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve no net loss / net gain.
Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholders where possible.
Address risk	Mitigate difficulty, uncertainty and other risks to achieving net gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as compensate for the time between the losses occurring and the gains being fully realised.
Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust credible evidence and local knowledge to make clearly justified choices when:

Principle	In Practice
	- delivering compensation that is ecologically equivalent in type, amount and condition that accounts for the location and timing of biodiversity losses - compensating for losses of one type of biodiversity offsetting by providing a different type that delivers greater benefits for nature conservation - achieving net gain locally to the development whilst also contributing towards nature conservation priorities at local, regional, and national levels. - enhancing existing or creating new habitat - enhancing ecological connectivity by creating more bigger, better and joined areas for biodiversity.
Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations i.e. do not deliver something that would occur anyway
Create a net gain legacy	Ensure net gain generates long-term benefits by: - engaging stakeholders- and jointly agreeing practical solutions that secure Net Gain in perpetuity - planning for adaptive management and securing dedicated funding for long-term management - designing net gain for biodiversity to be resilient to external factors, especially climate change - mitigating risks from other land uses - avoiding displacing harmful activities from one location to another - supporting local-level management of net gain activities
Optimise sustainability	Prioritise BNG and, where possible, optimise the wider environment benefits for sustainable society and economy
Be transparent	Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

National Planning Policy

National Planning Policy Framework (NPPF)

- 2.4 The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing & Communities, 2023) provides guidance for Local Planning Authorities (LPAs) in creating development plans and determining applications.
- 2.5 Section 180 states that planning policies and decisions should contribute to and enhance the natural and local environment by:
- protecting and enhancing sites of biodiversity value (in a manner commensurate with the statutory status or identified quality in the development plan);
 - recognising the wider benefits from natural capital and ecosystem services – including the economic and other benefits of trees and woodland; and
 - minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure.
- 2.6 Section 181 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at landscape scale across local authority boundaries.
- 2.7 Section 185 states that in order to protect biodiversity, plans should:
- identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of internal, 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
 - promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity
- 2.8 Section 186 states that when determining planning authorities should apply the following principles:
- 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;

- 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;
- 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
- 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.

2.9 Section 187 states that the following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- 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.

2.10 Section 188 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects) unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

2.11 Section 32 states that local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This should demonstrate how the plan has addressed relevant environmental objectives (including opportunities for net gains). Significant adverse impacts on these objectives should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed (or, where this is not possible, compensatory measures should be considered).

Legislation

Biodiversity Action Plan (BAP) Habitats and Species

- 2.12 The UK Biodiversity Action Plan (HMSO 1995, 1998; UKBAP 2007) lists species and habitats which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines. These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act, planning policy and underpinning guidance (ODPM, 2005)

3.0 METHODOLOGY

Condition Assessments

- 3.1 Habitat classification and condition assessments have been undertaken by ACD Environmental. BLADE Ecology have remapped the results of this assessment based on the updated detailed landscape strategy produced by BLADE Landscape Architects shown in Appendix A.
- 3.2 Descriptions of habitats have been detailed within the Ecological Impact Assessment Report (ACD Environmental, 2023).

Calculating Biodiversity Units

- 3.3 The Biodiversity Metric 3.1 was used to calculate the baseline (habitat and hedgerow units) and post-development units. Metric calculations have been undertaken by E. Seaton BSc (Hons) MCIEEM.

4.0 RESULTS

Habitat Creation

4.1 The following habitat creation is proposed (see Landscape Strategy in Appendix A for locations).

- 0.77ha of other neutral grassland (Emorsgate EL1, EM3 and EM8 mixes) in 'moderate' condition.
- 0.07ha of mixed scrub in 'poor' condition
- 0.05ha of introduced scrub (condition assessment n/a)
- 148 small, native trees in 'moderate' condition.
- 23 small, native trees in 'poor' condition.
- 0.346km of species-rich native hedgerow in 'poor' condition running along the western boundary.

4.2 The following criteria will be targeted to allow the other neutral grassland to achieve 'moderate' condition:

- The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type.
- Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus agg.*) is less than 5%.
- Combined cover is species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% total area.

4.3 The below criteria will be targeted to allow the specified trees (148 of 171) to achieve 'moderate' condition:

- The tree is a native species
- The tree canopy is predominantly continuous (individual trees automatically pass this criterion)
- More than 20% of the tree canopy area is oversailing vegetation beneath.

Habitat Enhancement

- 4.4 A total of 0.27ha of other woodland, broadleaved is to be retained and enhanced from 'moderate' to 'good' condition. This is to be achieved via supplementary native tree and scrub planting (ACD Environmental, 2023)

Biodiversity Unit Calculations

- 4.5 The site is formed from 2.60 habitat units and 0.03 hedgerow units.

Table 2: Habitat Biodiversity Impact

Factor	Units
Baseline units	9.86
Post-intervention biodiversity units	11.11
Total net unit change	+1.25
Total net % change	+12.70
Trading Rule Satisfied	Yes

Table 3: Hedgerow Biodiversity Impact

Factor	Units
Baseline units	0.00
Post-intervention biodiversity units	1.34
Total net unit change	+1.34
Total net % change	n/a*
Trading Rule Satisfied	Yes

* Percentage increase cannot be calculated due to zero hedgerow baseline.

- 4.6 The proposals set out within the landscape strategy (BLADE, 2024) will deliver a +11.11 (+12.70% gain) habitat unit gain and a +1.35 hedgerow unit gain.

5.0 REFERENCES

ACD Environmental. *Ecological Impact Assessment – Land south of Bridge Farm*. ACD Environmental, Malmesbury, UK

Baker, J., Beatty, B., Hoskin, R., Footprint Ecology, Butterworth, T., WSP (2019). *Biodiversity Net Gain. Good Practice Principles for Development – A Practical Guide*. CIRIA, London, UK.

CIEEM (2017). *Guidelines for Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester, UK.

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

Department for Environment, Food & Rural Affairs (2024). *The Statutory Biodiversity Metric – User Guide*. Department for Environment, Food & Rural Affairs, UK. Available from: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Accessed June 2024]

Department for Environment, Food & Rural Affairs (2024). *Statutory Biodiversity Metric Condition Assessments*. Department for Environment, Food & Rural Affairs, UK. Available from: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Accessed July 2024]

MAGIC (2021) *Interactive Map*. Available from: <https://magic.defra.gov.uk/> [Accessed July 2024]

National Planning Policy Framework (2023) Department for Communities and Local Government, UK.

APPENDIX A

Plans

Baseline Habitats (ACD Environmental)

Landscape Strategy (BLADE Landscape Architects)

APPENDIX 1: PHASE 1 HABITAT MAP





LEGEND

Boundary

Existing Public Right of Way

Existing trees removed

Existing trees retained

Existing hedgerows to be retained h2a6

Proposed small trees native/non-native

Proposed medium trees

Proposed large native trees

Proposed species-rich native hedgerow h2a5

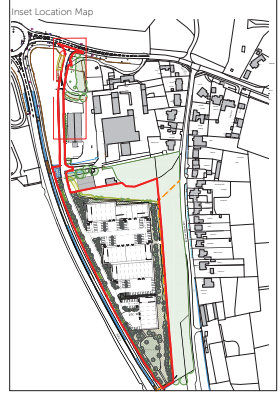
Proposed shrub planting

Proposed mixed scrub h3h

Proposed other neutral grassland (Emorsgate EL1 Flowering Lawn Mixture) g3c

Proposed other neutral grassland (Emorsgate EM3 Special General Purpose Meadow Mixture) g3c

Proposed other neutral grassland (Emorsgate EM8 Wetland Meadow Mixture) g3c



BLADE

30 St Georges Square, Worcester, WR1 1HK
01905 947558
www.westblade.co.uk

CLIENT
Tungsten Properties

PROJECT
Observer Park, Arborfield, Reading

DRAWING TITLE
Landscape Strategy

DRAWING STATUS
Planning

DRAWING NO.
1628-L-D-PL-200

REVISION
V4

DRAWN
KC

CHECKED
ST

SCALE
1:500

PAPER SIZE
A1

DATE
JULY-2024

Indicative Planting Palette

Trees

Trees to be planted in location as shown.
Trees to be well branched extra heavy standard or heavy standard root ball or bare root stock at a height of 350-600cm.

Example Species:
Acer campestre
Betula pendula
Carpinus betulus
Prunus avium
Prunus padus
Quercus robur
Sorbus aucuparia
Sorbus torminalis
Tilia cordata

Native Hedge

Hedge species to be clipped to 2m tall to ensure continuous height hedge. Bare root stock planted in a double staggered row at 5m. plants per linear metre.

Example Species:
Acer campestre
Corylus avellana
Crataegus monogyna
Prunus spinosa
Rosa canina
Viburnum opulus

Native Scrub

Scrub species to be bare root whips planted in groups of 8-15 no. plants of a single species with any evergreen species distributed evenly throughout the planted area.

Example Species:
Cornus sanguinea
Corylus avellana
Crataegus monogyna
Euonymus europaeus
Frangula alnus
Ilex aquifolium
Viburnum lantana

Shrubs

Shrub planting in and around the development area to incorporate a mixture of native and ornamental species. Shrubs to be 3/5L pots planted at an average of 3 plants per sqm.

Example Species:
Cornus sanguinea
Corylus avellana
Escallonia rubra macrantha
Euonymus europaeus
Ligustrum ovalifolium
Viburnum opulus
Weigela florida 'Bristol Ruby'

APPENDIX B

Qualifications and Experience

BLADE Ecology Ltd is Registered Practice of the Chartered Institute of Ecology and Environmental Management (CIEEM). A comprehensive range of ecological services are offered including Preliminary Ecological Appraisal (PEA), Ecological Impact Assessment (EclA), Habitat Regulations Assessment (HRA), Biodiversity Impact Assessment (BIA) and European Protected Species (EPS) Surveys / Licensing.

The practice works closely work closely with clients to achieve their aspirations alongside securing the best outcomes for the environment. With wildlife legislation and policy as its basis; commercial awareness, pragmatism and defensible advice is combined to form BLADE Ecology's approach.

As well as offering a wide range of ecological services, BLADE Ecology offers an in-house collaborative approach in conjunction with BLADE Landscape Architects and BLADE Trees.

Emma Seaton BSc (Hons) MCIEEM

Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and a postgraduate certificate in Ecological Consultancy. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA), surveying for notable / European Protected Species and mitigation / licensing advice. She has held Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish since 2015. She is also a Registered Consultant under the Bat Mitigation Class Licence (BMCL) licence and Earned Recognition consultant under the Natural England bat pilot project. Emma is a Full member of the Chartered Institute of Ecology and Environmental Management.

30 ST GEORGES SQUARE
WORCESTER
WR1 1HX

01905 947558
info@weareblade.co.uk
www.weareblade.co.uk

BLADE Ecology Ltd. Registered in England and Wales Number 13084460. VAT 384 3366 75.
BLADE Landscape Architects Ltd. Registered in England and Wales Number 11068394. VAT 288 9595 14.
BLADE Trees Ltd. Registered in England and Wales Number 13385589. VAT 387 2462 66.
Registered Office: 30 St Georges Square, Worcester, WR1 1HX.