

Phoenix Park

Biodiversity Net Gain Assessment

Prepared on behalf of Ratesu Limited

June 2025

Phoenix Park
Ecology 8800
Version 02

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1.0 Executive Summary

- 1.1 Pro Vision Ecology were commissioned in March 2025 to carry out a Biodiversity Net Gain Assessment of the site at Phoenix Park, Nelson's Lane, Hurst, Reading, RG10 0RR. The aim of the assessment was to establish how a 10% net gain within the development could be achieved.
- 1.2 The site comprises the northern section of Phoenix Park, containing modified grassland, bramble scrub, and individual trees.
- 1.3 The proposed development will comprise the erection of two telecom masts on the agricultural land. The development will include the creation of developed land as well as mixed scrub. The development will also allow for the enhancement of the retained grassland habitats. The two hedgerows on site are due to be retained with a stretch of new native hedgerow created around the yard.
- 1.4 The proposed development will result in a net gain of 0.29 habitat units (17.87%) and 0.08 hedgerow units (15.38%).

2.0 Introduction

Project Background

- 2.1 Pro Vision Ecology were commissioned in March 2025 to carry out a Biodiversity Net Gain (BNG) assessment of the site Phoenix Park, Nelson's Lane, Hurst, Reading, RG10 0RR. Plans for the site include the erection of two telecom poles on agricultural land. Proposed plans are shown in **Appendix A**.
- 2.2 This report provides the details for the BNG assessment for the proposed development.

Brief

- 2.3 To carry out a BNG assessment of the site to determine the opportunities for net gain for the future design of the development.

Relevant Legislation and Planning Policy

- 2.4 The key legislative provisions of relevance to this report with respect to the development proposals and their potential effects on ecological features are listed below:
- The Conservation of Habitats and Species Regulations 2017
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
 - The Protection of Badgers Act (1992)
 - The Environment Act (2021)
- 2.5 The UK Biodiversity Action Plan (BAP) was the Government's response to the 1992 Convention on Biodiversity (The Rio Convention), with the aim of halting the loss of biodiversity in the UK. The new UK post-2010 Biodiversity Framework replaced the previous BAP and is the government's response to the new strategic plan on the United Nations Convention on Biological Diversity (CBD). Although the UK post-2010 Biodiversity Framework supersedes the UK BAP, the UK BAP lists of priority species and habitats still remain an important reference source for identifying habitats and species of principal importance within the UK. Within England, Section 41 of the NERC Act (2006) lists species and habitats of principal importance for the conservation of biodiversity.
- 2.6 The Government has set out its policies for the protection and enhancement of biodiversity through the planning system in the National Planning Policy Framework Section 15 (NPPF, 2024).
- 2.7 The Environment Act 2021 includes the requirement for developments to provide 10% biodiversity net gain, to be evidenced with the use of the statutory metric. Developments are exempt if they are self-build comprising less than nine dwellings on an area less than 0.5 hectares, householder applications or developments below the threshold of impacts to habitats.
- 2.8 The site at Phoenix Park is located within Wokingham Borough Council. The Wokingham Borough Core Strategy (adopted January 2010) includes the core policy CP7 relating to biodiversity:

CP7 – Biodiversity

Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance.

Development:

- a) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or*
- b) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or*
- c) That compromises the implementation of the national, regional, county and local biodiversity action plans*
- d) Will only be permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that need no alternative site that would result in less or no harm is available which will meet the need, and:*
 - i. Mitigation measures can be put in place to prevent damaging impacts; or*
 - ii. Appropriate compensation measures to offset the scale and kind of losses are provided*

3.0 Methodologies

Strategic Significance

- 3.1 A data-gathering exercise was undertaken to obtain any available information relating to priority habitat and ecological networks to establish the strategic significance of the site, outlined within **Table 1**.

Table 1: Summary of information sources used for the Desk Study.

Organisation / Source	Information Sought
Thames Valley Environmental Records Centre (TVERC)	Locations of Ecological Networks in the vicinity of the site
MAGIC	Locations of and citations for all national statutory wildlife sites, including SSSI, within two kilometres and all international sites including SAC, SPA or Ramsar sites within five kilometres of the site.
Ordnance Survey Maps	Large scale habitat information and identification of off-site habitats which may require consideration (such as ponds) within 500m.

Baseline Assessment

- 3.2 A site visit was undertaken on the 4th April 2025 by experienced ecologist Maya Crate and assisted by Emma Bennett in cloudy and dry conditions with a light breeze and an ambient temperature of 15°C. The survey employed techniques based on the UK Habitat Classification System.
- 3.3 The collection of botanical information focused on the dominant and/or key indicator species for each habitat, to allow allocation of habitats to hierarchy levels 3 and/or 4 and where relevant to identify any priority habitats which are present on site.
- 3.4 The conditions of the habitats on the site were assessed in line with the condition sheets supplied alongside the Statutory Biodiversity Metric.

Biodiversity Net Gain Hierarchy

- 3.5 The scheme has been designed in line with the BNG hierarchy:
- Enhance and restore biodiversity on-site (within the red line boundary of a development site).
 - If developers can only achieve part of their BNG on-site, they can deliver through a mixture of on-site and off-site. Developers can either make off-site biodiversity gains on their own land outside the development site or buy off-site biodiversity units on the market.
 - If developers cannot achieve on-site or off-site BNG, they must buy statutory biodiversity credits from the government. This must be a last resort. The government will use the revenue to invest in habitat creation in England.

Biodiversity Net Gain

- 3.6 On completion of the fieldwork the habitat information was mapped using Biodiversity Metric QGIS template and areas were imported into the Statutory Biodiversity Metric calculation tool using the GIS Import tool. The metric calculates the baseline biodiversity units for the site based on the following factors:-
- Area
 - Habitat distinctiveness
 - Habitat condition
 - Strategic significance
- 3.7 The proposed habitat creation measures were selected in line with the site conditions and the surrounding habitats. Once inputted the metric provides biodiversity units for the proposed habitats based on the following factors:-
- Area
 - Habitat distinctiveness
 - Habitat condition
 - Strategic significance
 - Time habitat is created
 - Time to target condition
 - Difficulty of creation
- 3.8 The difference between the baseline units and proposed units is then used as a measure of change and is used to assess the number of biodiversity units achieved. Habitats, hedgerows and rivers are inputted as separate factors, with each requiring net gains, where present on a site.

4.0 Baseline Conditions

- 4.1 The results of the baseline survey are presented below. A habitat survey map is shown in **Appendix B**. The map illustrates the location and extent of the site surveyed, along with additional notable features. Full condition assessments have been provided alongside this report.
- 4.2 There is no evidence of any deliberate habitat degradation works on the site since January 2020 and full condition assessments have been completed. There are no irreplaceable habitats on the site.

Strategic significance

- 4.3 The data search provided by TVERC shows that the nearest designated site **Waltham to Binfield Woods and Parklands Biodiversity Opportunity Area (BOA)**, is located 0.9 kilometres northeast of the development site. The site is designated due to it containing lowland deciduous woodland, wet woodland and fen, lowland meadow, parkland and farmland.
- 4.4 The works area is comprised of poor condition modified grassland and bramble scrub and is therefore considered to lie in an area which is not formally identified within the local strategy.

Habitats

Surrounding habitat

- 4.5 The site is located within a rural setting, within Hurst, Reading. Arable fields border the site to the north, east and south with a commercial yard to the west.

Modified grassland

- 4.6 The site comprises modified grassland (**Figure 1**) which is dominated by dock (*Rumex obtusifolium*) and also comprises Yorkshire fog (*Holcus lanatus*), perennial rye-grass (*Lolium perenne*), red dead-nettle (*Lamium purpureum*), wild carrot (*Daucus carota*), nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), ragwort (*Jacobaea vulgaris*), teasel (*Dipsacus fullonum* L), thistle (*Cirsium* sp.), meadow buttercup (*Ranunculus acris*), green alkanet (*Pentaglottis sepervirens*) and daffodil (*Narcissus pseudonarcissus*). There are multiple patches of bare ground within the grassland.



Figure 1: Modified grassland with bare ground patch

- 4.7 The modified grassland was assessed as being in poor condition due to failing the essential criterion for species diversity, and also failing criterion B for varied sward height, criterion D for physical damage and criterion E for bare ground.

Hedgerow

- 4.8 Hedgerow one (**Figure 2**) runs along the length of the northern boundary and is comprised of hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), and bramble (*Rubus fruticosus*), with bracken (*Pteridium aquilinum*) in the understorey.
- 4.9 Hedgerow two (**Figure 3**) runs along the eastern boundary of the site and is comprised of hawthorn, blackthorn and bramble.



Figure 2: Hedgerow one. **Figure 3:** Hedgerow two

- 4.10 The hedgerows have been assessed as being in moderate condition as they fail 4 criteria.

Bramble scrub

- 4.11 Bramble scrub is present to the west of the site. This habitat does not require a condition assessment.

Individual trees

- 4.12 A low number of scattered trees are present along the northern boundary of the site. Two small willow (*Salix sp.*), one small oak (*Quercus robur*) and three large leylandii (*Cupressus leylandii*) are present to the east of the boundary (**Figure 4**).



Figure 4: Oak, willow and leylandii trees to the east

- 4.13 There are three small trees on the site and three large, all of which were assessed as being in moderate condition failing two criteria.

Artificial; unsealed surface

- 4.14 There is a small area of artificial unsealed service which forms the yard and is located within the application site.

Developed land

- 4.15 The access road is formed by developed land and will be unaffected by the proposals.

Baseline summary

- 4.16 The current BNG baseline is provided below in **Table 2**. The site has a baseline of 1.62 Habitat units and 0.54 hedgerow units.

Table 2: Statutory Biodiversity Metric Baseline.

Habitat baseline					
Habitat	Biodiversity Units	Area (ha)	Condition	Distinctiveness	Suggested action
Modified grassland	0.49	0.245	Poor	Low	Same distinctiveness or better habitat required
Bramble scrub	0.16	0.0391	Condition Assessment N/A	Medium	Same broad habitat or higher distinctiveness habitat required
Rural tree	0.98	0.1221	Moderate	Medium	Same broad habitat or higher distinctiveness habitat required
Artificial unvegetated; unsealed surface	0.00	0.0095	N/A other	V.Low	No compensation required
Developed Land	0.00	0.095	N/A other	V.Low	No compensation required
Hedgerow baseline					
Habitat	Biodiversity Units	length (km)	Condition	distinctiveness	Suggested action
Native Hedgerow	0.54	0.136	Moderate	Low	Same distinctiveness band or better

5.0 Proposed Habitats

- 5.1 The proposed plans have been designed to retain as much of the existing habitats as possible. The development includes the conversion of modified grassland and bramble scrub to developed land; sealed surface and modified grassland. The retained modified grassland is due to be enhanced alongside the creation of mixed scrub to the east of the site. The hedgerows on site are due to be retained alongside the creation of new native hedgerows.
- 5.2 A summary is provided below to outline targeted habitats and conditions and shown in **Appendix C**.

Enhancement of existing habitats

Modified grassland

- 5.3 Retained areas of modified grassland, and created areas will be managed with the aim of achieving moderate condition. This will be achieved through aiming for the conditions outlined in **Table 3**.

Table 3: Condition Assessment criteria to be met for modified grassland

	Criteria	How will it be achieved
A	There are at least 6-8 vascular plant species per m ² present, including at least 2 forbs.	All areas will be sown with a wildflower mix.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present) Note – patches of scrub with continuous (more than 90%	Areas will be mown to ensure scrub encroachment does not occur.
D	Physical damage is evident in less than 5% of total grassland area.	Vehicles will not drive across the areas and management will resow any damaged areas from any inappropriate use of the area.
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%	Management will prevent the colonisation by bracken.
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA)	Management will prevent the colonisation by invasive species which are not present over the wider site.

Creation of new habitats

- 5.4 A total area of 0.027 hectares of mixed scrub will be created to the east of the development. The aim will be to create mixed scrub in moderate condition. This will be achieved through aiming for the conditions outlined in **Table 4** below.

Table 4: Condition Assessment criteria to be met for mixed scrub creation

	Criteria	How will it be achieved
A	The parcel represents a good example of its habitat type – the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover)	The scrub will be plug planted with a native woody species mix and managed so that no one species does not dominate.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	This will be achieved by managing the scrub on rotation to prevent any one species or age class dominating the scrub habitat.
C	There is an absence of invasive non-native plant species (as listed on schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.	The scrub will be managed to prevent invasive species from colonising the habitat.

Hedgerows

- 5.5 New hedgerows will be created around the yard and will be managed with the aim of achieving moderate condition. This will be achieved through aiming for the conditions outlined in **Table 5** below.

Table 5: Condition assessment criteria to be met for hedgerows on site

	Criteria	How will it be achieved
A1	>1.5 m in height average along length	The hedgerow will be planted and managed to exceed 1.5 metres in height along its length and provide screening.
A2	>1.5 m in width average along length	The hedgerow will be planted with a double staggered row to provide a thick hedgerow.
B1	Gap between ground and base of canopy <0.5 m for >90% of length	The hedgerow management will ensure the gaps at the base are less than 0.5 metres
B2	Gaps make up <10% of total length; and no canopy gaps >5 m	The hedgerow will be managed to ensure it forms a continuous hedgerow. Any dead stock will be replaced at the appropriate time of year.

	Criteria	How will it be achieved
C2	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The hedgerow will be managed to prevent species indicative of nutrient enrichment invasive species from dominating the areas of bare ground.
D1	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species.	The habitats will be regularly managed to prevent any colonisation by invasive species.

6.0 Biodiversity Net Gain Assessment

- 6.1 The Statutory Biodiversity Metric was run based on the measures outlined in **Section 5.0** and shown in **Appendix C**. The assessment results in a net gain of 0.29 habitat units (17.87%) and a net gain of 0.08 hedgerow units (15.38%) (**Table 6**).

Table 6: Statutory Biodiversity Metric results

On-site baseline	Habitat units	1.62
	Hedgerow units	0.54
On-site post intervention	Habitat units	1.91
	Hedgerow units	0.63
Total net unit change	Habitat units	0.29 (17.87%)
	Hedgerow units	0.08 (15.38%)
Trading Rules Satisfied	Yes	

- 6.2 With these measures in place the development achieves the required 10% net gains for biodiversity on site, and the trading rules will be satisfied.
- 6.3 The enhancements will be managed by the client for the next 30 years as part of the general maintenance required for the masts.

7.0 References and Bibliography

CIEEM, CIRIA, IEMA (2019) *Biodiversity Net Gain. Good practice principles for development. A practical guide*. CIRIA C776a. London, 2019.

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Appendices

Appendix A: Proposed Plans

Appendix B: Baseline Habitats

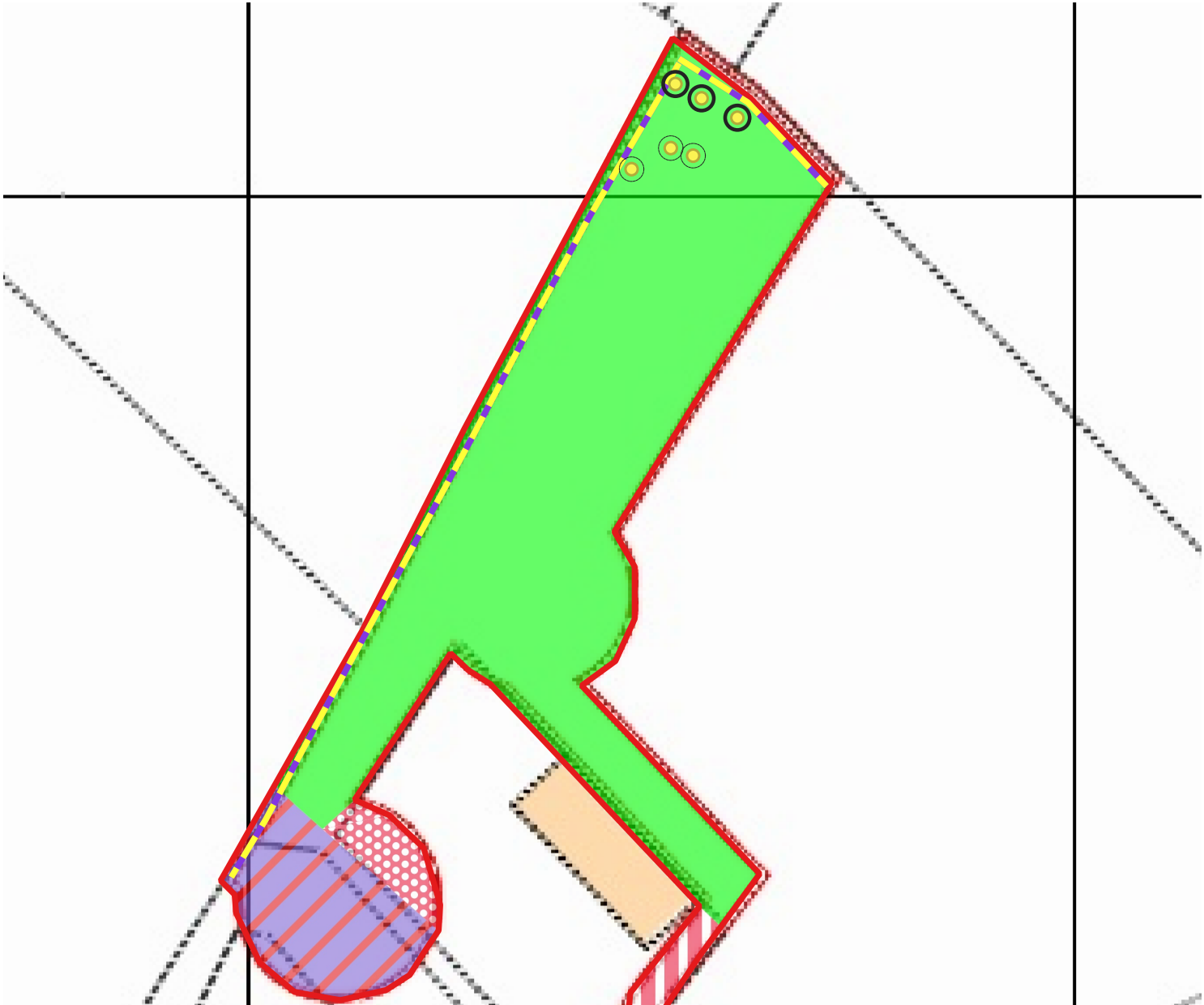
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The proposal presented here is subject to review by specialist consultants, and is to be read in conjunction with all relevant specialist's drawings and information where available. Any discrepancies between this and any other consultant's drawings and information should be reported to Pro Vision immediately.

Legend

- Red Line Boundary
- Existing Large Rural Tree
- Existing Small Rural Tree
- Native Hedgerow
- Artificial Unvegetated, Unsealed Surface
- Bramble Scrub
- Developed Land; Sealed Surface
- Modified Grassland



ISSUE	DATE	DESCRIPTION	DRAWN	CHECKED
v1	09.05.25	First issue	EB	LSJ
v2	06.06.25	Adjust red line	LSJ	

CLIENT:	Ratesu Limited		
PROJECT:	Phoenix Park		
DRAWING:	Habitat Map		1:750
NUMBER:	8800-XX-E0-02		A4
ISSUE:	v2		06.06.25

Appendix C: Proposed Habitats

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Legend

- Red Line Boundary
- Existing Large Rural Tree
- Existing Small Rural Tree
- Native Hedgerow
- Native hedgerow
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Mixed scrub
- Modified grassland



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v1	09.05.25	First issue	EB	LSJ
v2	06.06.25	Adjust red line	LSJ	

CLIENT:	Ratesu Limited		
PROJECT:	Phoenix Park		
DRAWING:	Proposed habitats	1:750	
NUMBER:	8800-XX-E0-03	A4	
ISSUE:	v2	06.06.25	

