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Biodiversity Metric Assessment

Land off of Hoad Way, Theale, Berkshire

A Report To: Panattoni c/o Turley
Report Number: RT-MME-159730-05-Rev B
Date: June 2024

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Quality Assurance

Date	Version	Author	Checked and approved by
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11/10/2023	Rev A	Rachel Baylis BSc (Hons) Qualifying CIEEM (Biodiversity Consultant)	Richard Wheat ACIEEM (Principal Consultant)
24/06/2024	Rev B	Richard Wheat ACIEEM (Principal Consultant)	Louise Fox (Principal Consultant)

Declaration of Compliance

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of Practice for Planning and Development". The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Disclaimer

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

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Contents

1. Introduction

1.1 Project Background

In July 2023, Panattoni c/o Turley commissioned Middlemarch to undertake a Biodiversity Metric Assessment associated with a proposed development off Hoad Way, Theale in Berkshire. The assessment is required to inform a planning application for a logistics development at the site.

Middlemarch has previously carried out a number of ecological and arboricultural works at the site in 2019 and 2021. These are:

- A Preliminary Arboricultural Assessment (Report RT-MME-150244-01, 2019),
- A Preliminary Ecological Appraisal (Report RT-MME-150244-02, 2019),
- An Arboricultural Impact Assessment (Report RT-MME-150244-03, 2019),
- Bat Surveys (Report RT-MME-150545-01, 2019),
- A Badger Survey (Report RT-MME-150545-02, 2019),
- A Reptile Survey (Report RT-MME-150545-03, 2019),
- An Ecological Walkover Survey (Report RT-MME-155397-01, 2021),
- Bat Surveys (Report RT-MME-155397-02, 2021),
- A Preliminary Arboricultural Assessment Update (Report RT-MME-155805-01, 2021); and
- An Arboricultural Impact Assessment (Report RT-MME-155805-02, 2021).

In addition to the above, Middlemarch carried out a Preliminary Arboricultural Assessment, an Arboricultural Impact Assessment and an Ecological Walkover Survey at the site in 2023. The purpose of these surveys was to review and describe any changes to the baseline ecological and arboricultural conditions at the site since the 2019 and 2021 surveys, and to provide additional condition assessment data to support the Biodiversity Metric Assessment in this report. The findings of these reports are detailed in Reports RT-MME-159730-01, RT-MME-159730-02 and RT-MME-159730-04, respectively.

Middlemarch have also been commissioned to prepare an Arboricultural Method Statement for the site, which will be provided in Report RT-MME-159730-03, when available.

1.2 Site Description and Context

Table 1.1 provides a brief summary of the site and its surroundings.

Attribute	Description
Location	To the immediate west of the junction between the M4 motorway and A4 Bath Road (Junction 12).
National Grid Reference	SU 64755 71463
Site Area (ha)	5.4 hectares
Topography	The site is largely flat, with slopes located off site to the north, south and west abutting the site boundaries.

Table 1.1: Summary of Site and Surroundings (continues)

Attribute	Description
Land Cover (on site)	The survey area comprised a large grassland-dominated field. Reference to historical aerial imagery indicates that the site was subject to arable management as recently as 2010, however in recent years has been left fallow and has subsequently colonised with a mosaic of coarse grassland and ruderal species. Field boundaries are formed by a combination of wooden fencing, intact hedgerow, woodland edge and scrub. The field is bisected by a large electricity pylon and overhead wires running north to south. A tall mobile phone mast within a small compound of palisade security fencing is present in the north-eastern corner of the field. The survey area also includes a small hardstanding compound enclosed by Heras fencing to the north-west.
Land Cover (site surrounds)	Beyond the site boundary to the south-east, south and south-west are steep slopes up to the highway embankments of the A4 Bath Road and Hoad Way, respectively. The M4 runs north-west to south-east c. 80 m to the east of the site. To the north-west is a small complex of built environment comprising a mixture of residential and industrial units, and beyond the eastern half of the northern boundary is an area of greenspace. The wider area is occupied by a mosaic of farmland, greenspace, retail and residential development typical of the urban fringes of West Berkshire.

Table 1.1 (Continued): Summary of Site and Surroundings

1.3 Project Scope

The purpose of the Biodiversity Metric Assessment (BMA) is to identify the change in biodiversity value that may result from a change in land use (e.g. development) or management (e.g. biodiversity enhancement) at the site and to establish if a net gain for biodiversity can be achieved. The BMA utilises a biodiversity metric to provide a proxy measure of biodiversity based on habitat attributes, which can then be used to determine the relative change in biodiversity value resulting from any land use or management measures proposed.

It should be noted that the metric is only a proxy for biodiversity using habitat values, and that any proposed enhancements should be designed using appropriate ecological expertise. Existing levels of protection afforded to protected species and to habitats are not changed by use of the metric and statutory obligations will still need to be satisfied. In addition, the metric cannot account for impacts on, or enhancements to, irreplaceable habitats or protected sites, which will need to be assessed separately.

1.4 Summary of Proposals

The proposed development comprises the construction of an employment facility, with associated access infrastructure, drainage and landscaping. This assessment is based on the documentation detailed in the following documentation listed in Table 1.2.

Document / Drawing Number	Author
Land to the East of Hoad Way, Theale - Planting Schedule (Drawing FIRS3002-03-C)	Turley
Land to the East of Hoad Way, Theale - Soft Landscaping Plan (Drawing FIRS3002)	Turley

Table 1.2 (Continued): Documentation Provided by Client

2. Methods

2.1 Biodiversity Metric

The biodiversity calculations used within this assessment were undertaken by Rachel Baylis (Biodiversity Consultant) using 'The Biodiversity Metric 4.0' and associated User Guide[1] and Technical Supplement[2]. Sections 2.2 and 2.3 describe the data used for the assessment and the assumptions applied.

2.2. Data Sources

Existing Baseline

The baseline habitat data and condition assessment for the site is taken from the Ecological Walkover Survey (Report RT-MME-159730-04) carried out by Middlemarch in 2023. A Phase 1 Habitat Plan showing the extent and location of each habitat recorded on site is included in Section 5 (C159730-04-01).

The Biodiversity Metric 4.0 calculator tool utilises the UK Habitat Classification System (UKHab) as the standard data input for habitats. The Phase 1 Habitat Survey data for the site was subsequently converted for the purposes of the metric calculation using the Phase 1 habitats to UKHab translation feature, included in the Biodiversity Metric 4.0 calculator tool, or using professional opinion.

Each habitat or linear feature recorded within the site is assigned a score for 'Distinctiveness', 'Condition' and 'Strategic Significance'. Table 2.1 below describes how each habitat attribute has been determined for the existing baseline habitats in the metric assessment.

Attribute	Description
Distinctiveness	An automated score based on the type of habitat present and its value to wildlife. Highly diverse habitats such as those listed as Habitats of Principal Importance under the NERC Act (2006) or Annex 1 habitats in the Habitats Directive (1992) score highly in this category, whilst highly modified and low diversity habitats such as arable crops will have low distinctiveness scores.
Condition	A score based on the quality of the habitat parcel against published condition criteria (See Ecological Walkover Survey, Report RT-MME-159730-04).
Strategic significance	A score based on information set out in local plans or policies. In this instance, a strategic location was defined as areas identified as Berkshire Biodiversity Opportunity Areas as described by the Berkshire Local Nature Partnership[3].

Table 2.1: Habitat Attributes for Existing Baseline Habitats

[1] Natural England (2023) *The Biodiversity Metric 4.0 – User Guide*. Natural England Joint Publication JP039. Available http://publications.naturalengland.org.uk/publication/6049804846366720

[2] Natural England (2023) *The Biodiversity Metric 4.0 – User Guide: Technical Annex 1 Condition Sheets and Methodology*. Natural England Joint Publication JP039. Available http://publications.naturalengland.org.uk/publication/6049804846366720

[3] Berkshire Local Nature Partnership (2023) *Biodiversity Opportunity Areas*. Available https://berkshirelnp.org/index.php/what-we-do/strategy/biodiversity-opportunity-areas

The value of each habitat parcel (or linear feature) is presented in terms of habitat (or hedgerow/river) 'biodiversity units' (BU).

Future Baseline

The future baseline conditions of the site are based on the Soft Landscaping Plan by Turley (FIRS3002 02 Rev B). Table 2.2 below describes how each habitat attribute has been determined for the future baseline habitats in the metric assessment.

Attribute	Description
Distinctiveness	An automated score based on professional opinion about the projected habitat type proposed, taking into account the landscaping proposals detailed in the Soft Landscaping Plan by Turley (FIRS3002 02 Rev B).
Condition	A target condition score of the proposed habitat parcel based on professional opinion about the outline enhancement and future management proposals.
Strategic significance	A score based on information set out in local plans or policies. In this instance, a strategic location was defined as areas identified as Berkshire Biodiversity Opportunity Areas as described by the Berkshire Local Nature Partnership.
Time to Target Condition	Time to target condition is automatically assigned in accordance with the Biodiversity Metric Tool 4.0. This multiplier can be adapted manually to reflect situations where a habitat is created in advance or where there is a delay in the project timescales for new habitat creation (e.g. project phasing).
Difficulty of Recreation	An automated value based on the difficulty of creating the target habitat. This value is unchanged from the values generated in Metric 4.0.

Table 2.2: Habitat Attributes for Existing Baseline Habitats

Following the calculation of the existing and future biodiversity value of the site, a calculation of the net biodiversity change is carried out to determine the 'Post-intervention habitat (or hedgerow/river) units', along with a figure for the percentage of net biodiversity impact loss (or gain).

2.3 Constraints and Assumptions

The following constraints and assumptions are applied to this report:

- For the purposes of this report, the term 'Habitat Loss' is applied to proposals that result in a change of habitat type or habitat 'distinctiveness'. This is defined in the Biodiversity Metric even where the new habitat type is created without any physical loss of the previous habitat type (e.g. creation of scrub over grassland). 'Habitat Enhancement' is applied where the habitat type and 'distinctiveness' remains the same, but the 'condition' of the habitat is improved.
- The BMA necessitates an estimation of future baseline values, based on professional opinion, to determine the change in biodiversity value that could occur as a result of the proposals at the site. The assumptions about target habitat types or condition in this report are based on professional opinion about the likely achievable outcomes at the site, based on the proposed planting plans and presumed management resources. All target habitats presume the implementation of a long-term Management Plan to achieve these ends and a recommendation to this effect is given in Section 4.

- The area of any new Urban Trees proposed is calculated using the Street Tree Helper. For the purposes of this assessment, all new trees proposed are assumed to be small (below 1/3 of their life expectancy).

3. Biodiversity Metric Calculation

3.1 Existing Habitats

The habitats identified during the Ecological Walkover Survey are described in Table 3.1 and their value in biodiversity units (BU) is provided. The current extent of the habitats present is shown in Drawing C159730-04-01 in Section 5. The baseline metric calculations are provided in Appendix 1.

Phase 1 Habitat	UKHab Habitat Equivalent	Area (ha) / Length (km) / No.	Description (distinctiveness, condition, connectivity and strategic significance)	Value (BU)
Area Based Habitats				
Semi-improved neutral grassland (TN1)	*Arrhenatherum* neutral grassland g3c5	4.56	Habitat is automatically classed as being of 'Medium' distinctiveness, with the area assessed as being in 'Moderate' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	36.48
Semi-natural broadleaved woodland (TN2)	Lowland mixed deciduous woodland w1f	0.05	Habitat is automatically classed as being of 'High' distinctiveness, with the area assessed as being in 'Moderate' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	0.60
Semi-natural broadleaved woodland (TN3)	Other lowland mixed deciduous woodland w1f7	0.08	Habitat is automatically classed as being of 'Medium' distinctiveness, with the area assessed as being in 'Poor' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	0.32
Dense scrub (TN4)	Willow scrub h3j	0.15	Habitat is automatically classed as being of 'Medium' distinctiveness, with the habitat assessed as being in 'Good' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	1.80
Dense scrub (TN5)	Bramble scrub h3d	0.27	Habitat is automatically classed as being of 'Medium' distinctiveness. The extent of this habitat lies outside any strategic area identified in the local plan. Condition assessments are not applicable for this habitat.	1.08

Table 3.1: Summary of Existing Habitats and Linear Features (continues)

Phase 1 Habitat	UKHab Habitat Equivalent	Area (ha) / Length (km) / No.	Description (distinctiveness, condition, connectivity and strategic significance)	Value (BU)
Scattered trees (TN7)	Scattered trees, secondary code 32	1*	Habitat is automatically classed as being of 'Medium' distinctiveness, with the habitat assessed as being in 'Good' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	0.96
Tall ruderal (TN8)	Tall forbs, secondary code 16	0.25	Habitat is automatically classed as being of 'Low' distinctiveness, with the habitat assessed as being in 'Moderate' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	1.00
Bare ground (TN10)	Sparsely vegetated urban land u1f	0.04	Habitat is automatically classed as being of 'Low' distinctiveness. There are no specific condition criteria for bare ground and so this habitat is assigned a 'Poor' condition score for the purposes of this assessment. The extent of this habitat lies outside any strategic area identified in the local plan.	0.08
Total Area (ha)		**5.40**	**Total Habitat Baseline (BU)**	**42.32**
Hedgerows				
Scattered trees (TN6)	Line of trees, secondary code 33	0.05	Habitat is automatically classed as being of 'Medium' distinctiveness, with the habitat assessed as being in 'Moderate' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	0.20
Defunct species-poor hedgerow (H1)	Other native hedgerow h2a6	0.23	Habitat is automatically classed as being of 'Medium' distinctiveness, with the habitat assessed as being in 'Moderate' condition (see Report RT-MME-159730-04). The extent of this habitat lies outside any strategic area identified in the local plan.	1.84
Total Length (km)		**0.28**	**Total Hedgerow Baseline (BU)**	**2.04**
Key: * *Scattered trees not included in total area.*				

Table 3.1 (Continued): Summary of Existing Habitats and Linear Features

3.2 Future Baseline and Impacts

Description of the Future Baseline

The future baseline for the purposes of this assessment is set out in the Soft Landscaping Plan by Turley. An adapted version of this plan is included in Section 5 showing how each landscaping area has been translated to a habitat type for the purpose of the Biodiversity Metric Assessment.

Impacts

Table 3.2 outlines the potential biodiversity impacts of the proposed development (including area proposed for retention, retained for enhancement, or habitats that are lost).

Phase 1 Habitat	UKHab Habitat	Habitats Retained		Habitat Retained for Enhancement		Habitat Loss	
		Area/ Length (Ha/km) /No.	Value (BU)	Area/ Length (Ha/km) /No.	Value (BU)	Area/ Length (Ha/km) /No.	Value (BU)
Area based habitats							
Semi-improved neutral grassland (TN1)	*Arrhenatherum* neutral grassland g3c5	1.09	8.72	0.00	0.00	-3.47	-27.76
Semi-natural broadleaved woodland (TN2)	Lowland mixed deciduous woodland w1f	0.05	0.60	0.00	0.00	-0.00	-0.00
Semi-natural broadleaved woodland (TN3)	Other lowland mixed deciduous woodland w1f7	0.04	0.16	0.00	0.00	-0.04	-0.16
Dense scrub (TN4)	Willow scrub h3j	0.06	0.72	0.00	0.00	-0.09	-1.08
Dense scrub (TN5)	Bramble scrub h3d	0.19	0.76	0.00	0.00	-0.08	-0.32
Scattered trees (TN7)	Scattered trees, secondary code 32	1*	0.96	0*	0.00	0*	-0.00
Tall ruderal (TN8)	Tall forbs, secondary code 16	0.00	0.00	0.00	0.00	-0.25	-1.00
Bare ground (TN10)	Sparsely vegetated urban land u1f	0.00	0.00	0.00	0.00	-0.04	-0.08
Total Impact (Area habitats)		**1.43**	**11.92**	**0.00**	**0.00**	**-3.97**	**-30.40**

Table 3.2: Summary of Impacts (continues)

Phase 1 Habitat	UKHab Habitat	Habitats Retained		Habitat Retained for Enhancement		Habitat Loss	
		Area/ Length (Ha/km) /No.	Value (BU)	Area/ Length (Ha/km) /No.	Value (BU)	Area/ Length (Ha/km) /No.	Value (BU)
Hedgerows							
Scattered trees (TN6)	Line of trees, secondary code 33	0.00	0.00	0.00	0.00	-0.05	-0.20
Defunct species-poor hedgerow (H1)	Other native hedgerow h2a6	0.23	1.84	0.00	0.00	-0.00	-0.00
Total Impact (Hedgerows)		**0.23**	**1.84**	**0.00**	**0.00**	**-0.05**	**-0.20**
Key: ** Scattered trees not included in total area.*							

Table 3.2 (Continued): Summary of Impacts

3.3 Habitat Creation / Enhancement

Table 3.3 below outlines the value of the proposed habitat creation/enhancements in the development proposals.

Landscape Typology	UKHab Habitat Equivalent	Area (ha) / Length (km) / No.	Description (target distinctiveness, condition, connectivity strategic significance and risk multipliers)	Value (BU)
Habitats				
Buildings and Hardstanding	Developed land: sealed surface	2.40	Comprises the new area of built development (buildings and hardstanding). The habitat type is automatically assessed as being of 'Very low' distinctiveness and due to the limited attributes for biodiversity, is not assigned a condition.	+0.00
Amenity grassland	Modified grassland	0.05	Comprises the proposed areas of close-mown grass with amenity seed-mix (A22 Low Maintenance mix). The habitat is automatically assessed as being of 'Low' distinctiveness and is considered to achieve a 'Poor' condition due to the composition and management.	+0.10
Introduced shrubs	Introduced shrub	0.19	Comprises proposed ornamental shrub, bulb planting and low groundcover planting using non-native species for (predominantly) amenity areas and frontages. The habitat is automatically classified as being of 'Low' distinctiveness and is considered to achieve a 'Poor' condition status.	+0.37

Table 3.3: Summary of Habitat Creation and Enhancement Proposals (continues)

Landscape Typology	UKHab Habitat Equivalent	Area (ha) / Length (km) / No.	Description (target distinctiveness, condition, connectivity strategic significance and risk multipliers)	Value (BU)
Semi-improved neutral grassland	Other neutral grassland	0.77	Comprises areas of neutral grassland sown onto cultivated sub-soil with a species-rich meadow mixture for loamy soils (Mix EM5). The habitat is automatically classified as 'Medium' distinctiveness and subject to long-term management is assigned a 'Moderate' condition score.	+5.15
Semi-improved neutral grassland	Other neutral grassland	0.13	Comprises a dry balancing basin which will be seeded with a species-rich meadow mixture (Mix EM8) to establish a neutral grassland tolerant of damper conditions. The habitat is automatically classified as 'Medium' distinctiveness and subject to appropriate management is considered to achieve a 'Moderate' condition score.	+0.87
Dense scrub	Mixed scrub	0.43	Comprises areas of new native tree and shrub planting. The habitat is automatically assigned a 'Medium' distinctiveness score and is likely to achieve 'Moderate' status subject to low intensity management to maintain structure and mixed composition.	+2.88
Scattered trees	Urban trees	95*	New native and ornamental tree planting (extra heavy and heavy standard trees) throughout the development. The trees are categorised as being of small size class and of 'Medium' distinctiveness. Individual trees are considered likely to achieve a 'Moderate' condition score.	+1.19
Total Creation (Area Habitats)		**3.97**	**Total Habitat Baseline (BU)**	**+10.56**
Hedgerows				
Intact **species-poor** hedgerow	Native hedgerow	0.42	New hedgerows comprising native species. The hedges are automatically classified as being of 'Low' distinctiveness and due to the proposed management (clipped), they are considered to achieve 'Moderate' rather than 'Good' ecological condition.	+1.41
Total Creation (Length)		**0.42**	**Total Hedgerow Baseline (BU)**	**+1.41**
Key: ** Scattered trees not included in total area.*				

Table 3.3 (Continued): Summary of Habitat Creation and Enhancement Proposals

3.4 Headline Results

Table 3.4 details the headline results. Full details of the biodiversity metric calculations can be found in Appendix 1.

	Habitat Units	Hedgerow Units
On-site baseline	42.32	2.04
On-site post-intervention	22.48	3.25
Total net unit change	-19.84	+1.21
Total net % change	-46.88	+59.11

Table 3.4: Biodiversity Metric Assessment – Headline Results

The existing value of the habitats on site is **42.32 BU**.

The proposals (habitat loss, retention, enhancement and creation combined), as based on the Soft Landscaping Plan by Turley (FIRS3002 02 Rev B), will deliver a net loss of **19.84 units**, a **46.88%** decrease of baseline habitat value.

The existing value of the hedgerows on site is **2.04 BU**.

The proposals (habitat loss, retention, enhancement and creation), as based on the Soft Landscaping Plan by Turley (FIRS3002 02 Rev B), will deliver a net gain of **1.21 BU**, a **59.11%** increase of baseline hedgerow value.

The Biodiversity Metric indicates that the trading rules for the biodiversity metric have not been met as part of the biodiversity due to the provision of one habitat type at the expense of another. Table 3.5 details where the trading rules are not compliant.

	Broad Habitat type	Net Value change	Trading assumptions met?
Medium distinctiveness habitats	Other neutral grassland	-21.73 BU	No
	Scrub (mixed, willow and bramble)	+1.48 BU	Yes
	Urban trees	+1.19 BU	Yes
	Other broadleaved woodland	-0.16 BU	No

Table 3.5: Habitat Trading Summary for the Proposed Development

Table 3.5 indicates that whilst the loss of units is equivalent to 20.20 units, the scheme will result in a trading loss equivalent to 21.73 units of grassland and 0.16 units of woodland; a combined loss of **21.89 BU**.

4. Discussion and Recommendations

4.1 Conclusions

Biodiversity Change

Habitats

The BMA identifies that the proposed development will result in a net loss of **-21.89 BU**, which accounts for the residual net loss of biodiversity and the down trading in value of semi-natural habitats. The mitigation hierarchy of the National Planning Policy Framework[4] and Policy CS17 of the West Berkshire Core Strategy[5], state that where adverse biodiversity impacts cannot be avoided or mitigated, compensation will be required to ensure that development proposals achieve net gains in biodiversity. Compensation for the residual 21.96 BU loss of habitats value will therefore be required to ensure that the development can achieve an overall net gain for biodiversity and ensure compliance with planning policy overall.

In this instance, opportunities to provide further habitat creation/enhancement within the site to address residual losses and secure a net gain have been explored, but it was deemed that, due to the type, layout and end use of the development scheme, achieving a net gain was not feasible on site. An offsite compensation solution (e.g. biodiversity offset) will therefore be required and it is recommended that the Local Planning Authority are contacted to discuss options for how this could be achieved to secure a net gain for biodiversity overall. A recommendation to this effect is included in Section 4.2 below.

Hedgerows

The BMA identified that the proposal will result in a **1.21 BU** net gain for hedgerow features at the site, which is equivalent to a 59.11% increase in hedgerow value at the site. This gain compensates for all loss of hedgerow features and secures a net gain for biodiversity. This net gain exceeds the 10% net gain in hedgerow value advocated by the Environment Act 2021. This ensures that the proposed development is compliant with planning policy for hedgerow habitats (subject to long-term management) and so therefore no additional recommendations are given.

Note: As biodiversity units for hedgerows and habitats are measured differently in the metric, the values generated for one are not comparable to the other. The net gain in hedgerows BU cannot be used to counterbalance the net losses in habitat BU described above.

Landscape and Ecological Management Plan

The projected onsite habitat values given in this report are based on the assumption that an appropriate Management Plan will be implemented to ensure that the habitats/hedgerows will be established and maintained to fulfil their intended biodiversity value. Biodiversity Net Gain Principles[6] necessitates that any biodiversity units claimed must be deliverable over a minimum period of 30 years. As such, the recommended Management Plan must provide long-term management proposals and provide scope for monitoring and reporting, to demonstrate that the

[4] Ministry of Housing, Communities and Local Government (2021) *National Planning Policy Framework*. Available https://www.gov.uk/government/publications/national-planning-policy-framework--2

[5] West Berkshire Council (2012) *West Berkshire Core Strategy 2006 - 2026*. Available https://www.westberks.gov.uk/article/41052/Core-Strategy-Development-Plan-Document-DPD

[6] CIRIA, CIEEM, IEMA (2016) *Biodiversity Net Gain: Good Practice Principles for Development*. Available https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf

intended values will be achieved over a minimum 30-year period. A recommendation to this effect is included in Section 4.2 below.

4.2 Recommendations

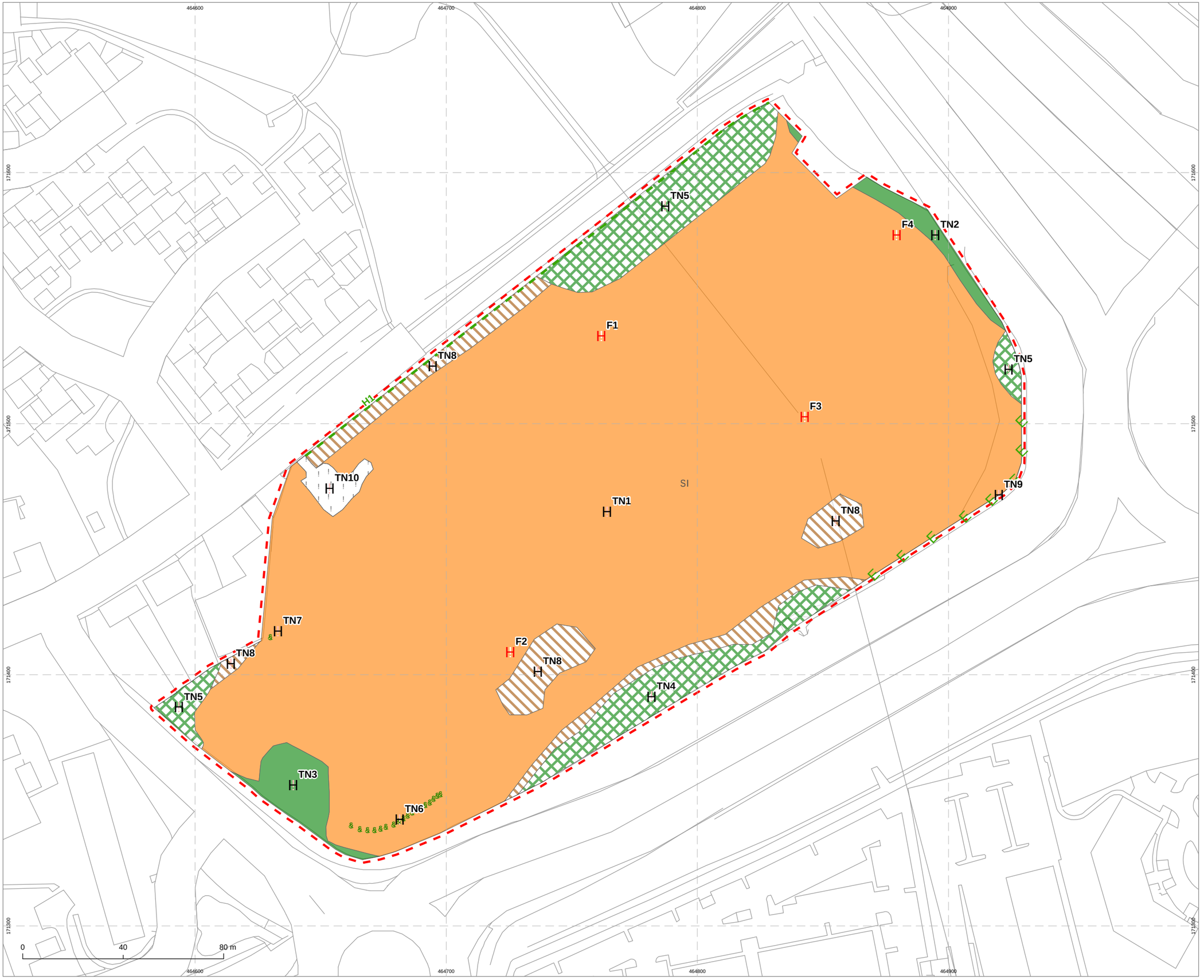
R1 The Local Planning Authority should be contacted to discuss the provision of an offsite compensation solution to address the residual loss of **21.89 BU** lost to the development proposals to ensure that the development can deliver a biodiversity net gain.

R2 A Landscape and Ecological Management Plan (LEMP) should be produced for all habitats and hedgerow features proposed within the site. The LEMP should set out the appropriate establishment works and management prescription required to achieve and maintain the intended type and condition of each habitat/hedgerow feature. The LEMP should cover a minimum period of 30 years and include provisions for monitoring, review, reporting and contingency throughout. The LEMP could be produced as part of a planning condition for the proposed development**.**

5. Drawings

Drawing C159730-04-01 – Ecological Walkover Survey

Drawing C159730-05-01-Rev A - Drawing Adaptation of Soft Landscaping Plan for Purposes of the BMA



C159730-04-01

Legend

- Site boundary
- Scattered scrub
- Scattered tree
- Species-poor defunct hedgerow
- Bare ground
- Broad-leaved semi-natural woodland
- Dense scrub
- SI — Semi-improved neutral grassland
- Tall ruderal
- Target note - Habitat Parcel
- Target note - Feature

F1. Log piles and wet ground with abundant gypsywort
F2. Wet ground and abundant rushes
F3. pylon
F4. Sub-station

Project	Land off of Hoad Way, Theale, Berkshire
Drawing	Ecological Walkover Survey
Client	CP Logistics UK Reading Propco Ltd
Drawing Number: C159730-04-01	Revision: 00
Scale @ A3: 1:1,400	Date: August 2023
Approved By: JF	Drawn By: BD

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Legend

- Site boundary
- Native hedgerow
- Species-poor defunct hedgerow to be retained
- Proposed tree
- Tree to be removed
- Tree to be retained
- Building and hardstanding
- Bulb planting
- Grass
- Low ground cover planting
- Meadow mix for loam
- Meadow mix for wetland
- Native tree and shrub mix
- Ornamental shrub planting
- Retained

N

Project	Land off of Hoad Way, Theale, Berkshire
Drawing	Proposed Habitats
Client	Panatonni c/o Turley
Drawing Number: C159730-05-01-RevA	Revision: Rev A
Scale @ A3: 1:1,400	Date: June 2024
Approved By: RW	Drawn By: JR

MIDDLEMARCH

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Appendix 1

Biodiversity Metric 4.0. Calculation, Land off of Hoad Way, Theale, Berkshire

(Excel Calculator Tool Attached Separately)