BIODIVERSITY NET GAIN PLAN
Stane Street, North Heath, West Sussex

August 2024

BMD.24.0117.RPE.IA.001. Biodiversity Net Gain Plan

DOCUMENT HISTORY

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Declaration of compliance with professional code of ethics or conduct
The information which we have prepared and provided 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 bonafide opinions.

Every reasonable attempt has been made to comply with the relevant best practice guidelines and BS42020:2013 (Biodiversity: Code of practice for planning and development).

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EXECUTIVE SUMMARY

CLIENT	Architectural Plants Ltd
CONSULTANT	Bradley Murphy Design Ltd.

SITE

Location	Stane Street, North Heath, West Sussex
National Grid Reference	Approx. centre: TQ 07035 22552.
Over-view	The Site is approximately 0.37 ha in total. The Site comprises of hardstanding, improved grassland a small area of introduced shrub and a single mature oak tree. The Site is dominated on all orientations by arable and grazed farmland.
Landscape context	The Site is situated on the northern extent of the village of North Heath. As such, the Site sits within a rural landscape, with an agricultural field matrix and hedgerows surrounding and a small number of residential developments within, With the town of Billinghurst approximately 3.3 km north.

DEVELOPMENT & PLANNING BACKGROUND

Proposed works	Installation of solar array.
Planning stage	Full Planning Application

ECOLOGICAL BACKGROUND

General	BMD undertook an ecological assessment of the Site in August 2024.

ASSESSMENT

Objectives	To provide baseline data pertaining to potential biodiversity net gain as a result of the current development proposals for the Site.
Approach	Quantitative Biodiversity Net Gain Assessment using The Small Sites Statutory Biodiversity Metric.
Date	August 2024

RESULTS & CONCLUSIONS

Quantitative (predicted Biodiversity Net Gain)	As demonstrated, a positive habitat biodiversity unit change of 10.12% is anticipated based on the current creation proposals associated with retained grassland, enhanced wildflower grassland and 10 planted individual trees.
Qualitative	In addition to this quantitative assessment a number of qualitative gains are also considered to be achievable.

RECOMMENDATIONS

Opportunities for enhancement include the use of native and wildlife friendly species within any soft landscaping.

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1. INTRODUCTION

1.1 Background Information

1.1.1 Bradley Murphy Design Ltd. (BMD) was commissioned by Architectural Plants Ltd in August 2024 to undertake an Biodiversity Net Gain Assessment of their site: – Stane Street, North Heath —hereafter referred to as 'the Site'. The Site is approximately centred on national grid reference: SP 98494 55532. A plan depicting the Site's location is provided in the Appendix.

1.1.2 The following assessments were completed in April 2024:

- A quantitative assessment of predicted biodiversity net gain post-development compared with a 'no development' situation using a biodiversity impact matrix has been completed (current document); and,
- A qualitative assessment of net gain associated with new habitat creation and provision of other enhancements such as species features.

1.1.3 This report accompanies and presents the results of the biodiversity impact calculation (provided in the Appendix) undertaken at the Site to demonstrate net gain of biodiversity as a result of the proposals, hereafter referred to as the 'Scheme'.

2. CONTEXT

2.1 Landscape

2.1.1 The Site is approximately 0.37 ha in total. The Site comprises of hardstanding, improved grassland a small area of introduced shrub and a single mature oak tree. The Site is dominated on all orientations by arable and grazed farmland.

2.1.2 The Site is situated on the northern extent of the village of North Heath. As such, the Site sits within a rural landscape, with an agricultural field matrix and hedgerows surrounding and a small number of residential developments within, With the town of Billinghurst approximately 3.3 km north.

2.2 Proposed development

2.2.1 The proposals are for full planning permission for installation of a solar array.

2.3 Ecological Context

Habitats:

2.3.1 A Site visit was undertaken by BMD on 12th August 2024 and a detailed walkover survey carried out of the Site and the local environment. The following habitats were recorded on Site:

Hardstanding - An area to the east of the Site comprises hardstanding used for access.

Improved grassland - Frequently cut and well managed area of improved grassland.

Introduced shrubs – a small area of introduced shrubs were present within the Site.

Scattered trees– a single mature pedunculate oak was present within the centre of the Site.

3. RESULTS

3.1.1 The results of the Ecological Verification Assessment, in relation to the condition of the Site in 2024, are set out below with supporting photographs appended to this report.

3.2 Habitats

Table 3.1 provides a summary of the nature conservation importance of habitats within the Site and condition.

Habitat	Meets UK Priority/Local BAP habitat criteria	Condition[1]	Geographical context[2]
Buildings/ hardstanding	No	N/A	Site
Improved grassland	No	Poor	Site
Introduced shrubs	No	N/A	Site
Scattered trees	No	Moderate	Site

Notes:
1. As determined using the Statutory Biodiversity Metric guidance. Where it is considered that the condition outcome is inappropriate justification is given in the text.
2. Geographic level at which the habitat is considered important

3.2.1 Buildings, scattered trees, introduced shrub and improved grassland are common habitats locally and nationally and support common native botanical species or non-native species. These habitats are easily restored or re-created. They are of limited value to faunal species as only low botanical species diversity is present. However, such habitats may be used by bats and nesting birds.

3.3 Area Habitats

Hardstanding

3.3.1 An area of hardstanding used as access to the east.

Improved Grassland

3.3.2 The majority of the Site is dominated by improved grassland. The grassland is well managed and frequently cut short. Some areas the sward was longer and less managed. Species present included ribwort plantain, curly dock, bristly ox tongue, cock's foot, Yorkshire fog, compact rush, common vetch, ragwort, creeping thistle, bent grass, dandelion, bristly ox tongue, daisy, clover and broadleaved plantain.

Introduced Shrub

3.3.3 A small area of introduced shrub was present within the Site. Species dominant were mock privet, beech and Bournemouth pine. Two hornbeams were also present in planters.

Scattered Trees

3.3.4 A single mature oak is located within the centre of the Site, this is of moderate condition with negligible potential for roosting bats.

3.4 Invasive species

3.4.1 No invasive species were recorded on Site.

4. BIODIVERSITY NET GAIN

4.1 Biodiversity Net Gain

4.1.1 Biodiversity Net Gain is defined as:

- "Development that leaves biodiversity in a better state than before, and an approach where developers work with local governments, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation". (Baker et al., 2019)

4.1.2 Previously, various percentage targets are used across the country and in schemes such as BREEAM, it is noted that there is no consistent agreed target percentage gain at either national or local level. However, as of November 2021, The Environment Act 2021 states under Schedule 14 that provision are to be made *"for biodiversity gain to be a condition of planning permission in England."* (HM Government 2021). Proposals indicated a minimum 10% net gain will become mandate by early 2024.

4.1.3 In England, biodiversity net gain (BNG) has become mandatory from 2nd April 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

4.1.4 Developers must deliver a biodiversity net gain of 10%. This means a development will result in more or better quality natural habitat than there was before development.

4.2 National Planning Policy Framework 2023 (NPPF)

4.2.1 The NPPF places strong emphasis on achieving net gain in all developments (not just 'no net loss') through the planning systems purpose of achieving sustainable development (HM Government 2023). The NPPF notes three overarching objectives to achieve sustainable development and opportunities to be taken to secure net gain in each. The environmental objective relates to biodiversity:

- "to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy" (HM Government 2023).

4.2.2 As set out in 'Section 5. Conserving and enhancing the natural Environment' of the Framework:

- "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;" (HM Government 2023, paragraph 180(d)).

4.3 Biodiversity Net Gain Good Practice

4.3.1 In 2016 (Baker, 2016) a set of Good Practice Biodiversity Net Gain Principles were defined and underpin the current best practice guidance for development (Baker *et al.,* 2019). These principles are:

- Principle 1: Apply the mitigation hierarchy;
- Principle 2: Avoid losing biodiversity that cannot be offset elsewhere;
- Principle 3: Be conclusive and equitable;

- Principle 4: Address risk;
- Principle 5: Make a measurable net gain contribution;
- Principle 6: Achieve the best outcomes for biodiversity;
- Principle 7: Be additional;
- Principle 8: Create a net gain legacy; Okay great
- Principle 9: Optimise sustainability; and
- Principle 10: Be transparent.

5. APPROACH

5.1 Overview

5.1.1 This assessment is being completed in accordance with the Good Practice Biodiversity Net Gain Principles set out in Section 4.

5.1.2 Details of the approach used to determine the baseline biodiversity conditions at the Site and predicted biodiversity net gain of the Site are documented below.

5.1.3 The Site was subject to an Ecological Assessment in August 2024. This included a review of the current condition of the habitats on Site.

5.1.4 This biodiversity net gain assessment uses the Small Sites Statutory Biodiversity Metric in line with best practice.

5.2 Small Sites Metric (SSM)

5.2.1 The Small Sites Metric can only be used for 'small sites'. Small sites are developments which do not fall under the meaning of major development (major development is defined in article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015). This means:

- Residential development where the number of dwellings is between 1 and 9, or if this is unknown, the site area is less than 0.5 hectares.
- Commercial development where floor space created is less than 1,000 square metres or total site area is less than 1 hectare.
- Development that is not the winning and working of minerals or the use of land for mineral-working deposits.
- Development that is not waste development.

5.2.2 The Statutory Biodiversity Metric tool needs to be used for any development which meets the definition for major development.

5.2.3 The following criteria also need to be met to use the small sites metric calculation tool:

- Where only the habitats available in the SSM are present on-site
- Where no priority habitats are present on-site.
- Where no statutory protected sites or habitats are present or within 500m of the site.
- where no European protected species are present.

5.2 Biodiversity

5.2.1 The quantitative assessment for this biodiversity gain plan uses the Small Sites Statutory Biodiversity Metric to provide a transparent and replicable numeric value of biodiversity before and after

enhancement. The metric only considers habitats and does not take protected and notable species into account.

5.2.2 The values take a number of habitat attributes into consideration, these are displayed below within Table 5.1. These habitat attributes are either pre-populated by the Statutory Biodiversity Metric parameters or determined by information available on the pre-development baseline habitats or the post-development predicted habitats and professional judgement.

Table 5.1 The Small Sites Statutory Biodiversity Metric habitat attributes and pre-populated status

Calculation Input	Area	Hedgerow	Watercourses
Habitat Type	Determined by available information and professional judgement	Determined by available information and professional judgement	Determined by available information and professional judgement
Size	Square Metres	Metres	Metres
Distinctiveness	Automatically assigned by SSM	Automatically assigned by SSM	Automatically assigned by SSM
Condition and Target Condition	Determined by available information and professional judgement for some created and enhanced habitats only.	Determined by available information and professional judgement for some created and enhanced habitats only.	Determined by available information and professional judgement for some created and enhanced habitats only.
Strategic significance	Determined by available information and professional judgement	Determined by available information and professional judgement	Determined by available information and professional judgement
Area/ Length Retained, Enhanced or Lost	Determined by available information and professional judgement	Determined by available information and professional judgement	Determined by available information and professional judgement

5.2.3 An overview of the Small Sites Statutory Biodiversity Metric principles, rules and key components are described in the following sections.

5.3 Area Habitats, Linear Features & Point Features

5.3.1 Area habitats such as 'modified grassland' are measured in metres squared within the Small Sites Statutory Biodiversity Metric, while linear features such as 'Native hedgerow' are measured in metres. The only point features included in the metric are trees, e.g. 'Rural tree', these are measured in hectares based on their tree canopy, calculated using the 'Tree helper' tool of the Statutory Biodiversity Metric.

5.3.2 Linear features are divided into 'Hedgerows' and 'Watercourses' and are dealt with separately in the metric. Hedgerows are included within this biodiversity net gain assessment of the Site.

5.3.3 The area of a watercourse may be recorded in the area module as the category 'watercourse footprint'. There are no biodiversity units associated with this category and all biodiversity units generated by watercourses are reported within the watercourse tab.

5.3.4 Point features such as 'Urban tree' are allocated size categories which are then summed and calculated as a canopy area in hectares. Table 5.2 displays these size classes and area equivalents below, further information can be found within the Statutory Biodiversity Metric User Guide Draft (Department for Environment, Food and Rural Affairs, 2023). The biodiversity metric uses set values to represent the area

of trees depending on their diameter at breast height. This value is a representation of canopy biomass, and is based on the root protection area formula, derived from BS 5837:2012. The metric will:

- Account for each individual tree within a group or block of trees;
- Record the habitat underneath the tree canopy separately;
- Not reduce any area generated by the tree helper;
- Not deduct the area of individual trees from other habitats; and
- Make clear in the user comments how many trees contribute towards the total area.

5.3.5 'Individual tree' area is not added onto the total site area, as these point features are treated as a secondary layer that sits above the total site area on the ground. However, the biodiversity value provided by the 'Individual tree' area is added onto the total site biodiversity value.

Table 5.2 Tree size classes and area equivalents (DEFRA, 2024)

Size	Diameter at Breast Height (cm)	Metric area Equivalent (ha)
Small	7-30	0.0041
Medium	31-60	0.0163
Large	60-90	0.0366
Very large	90	0.0765

5.4 Habitat Distinctiveness

5.4.1 Habitat distinctiveness is allocated as one of four possible categories, these categories are automated within the Small Sites Statutory Biodiversity Metric. Table 5.3 below displays the distinctiveness categories, scores and criteria.

5.4.2 The SSM automatically assigns a distinctiveness category based on habitat type. Further information can be found within the Small Sites Statutory Biodiversity Metric User Guide Draft (Department for Environment, Food and Rural Affairs, 2023).

Table 5.3 The Statutory Biodiversity Metric distinctiveness categories, scores and criteria (DEFRA 2024).

Distinctiveness	Score
Medium	4
Low	2
Very Low (hedgerow)	1
Very Low (area & watercourse)	0

5.5 Habitat Condition

5.5.1 Habitat condition is allocated as one of five possible categories. These categories are determined by information available on the pre-development baseline habitats or the post-development predicted habitats.

5.5.2 When using the small sites metric (SSM), condition assessments do not need to be undertaken as condition is automatically assigned by the SSM at the baseline stage. Some habitats require professional judgement when assessing habitats and allow the user to assign the condition post-intervention from a set number of options.

5.5.3 These condition criteria are specific to each habitat type, further information can be found within the Statutory Biodiversity Metric User Guide Draft. Where the same habitat types occur within the Site but have different condition categories, they have been assessed separately within the metric. Table 5.4 below displays the condition categories and scores.

Table 5.4 The Small Sites Statutory Biodiversity Metric condition categories and scores (DEFRA, 2024)

Condition	Score
Good	3
Moderate	2
Poor	1
Condition Assessment N/A	1
N/A - Other	0

5.6 Metric Principles & Rules

5.6.1 The Small Sites Statutory Biodiversity Metric may be used to carry out assessments of biodiversity net gain and inform plans and decision making if the metric principles and rules are adhered to. Table 5.5 below lists the principles and rules of the Statutory Biodiversity Metric. Further details of these principles and rules can be found within the Statutory Biodiversity Metric User Guide (DEFRA, 2023).

Table 5.5 The Small Sites Metric principles and rules (DEFRA, 2024)

Principles	
1	"The SSM assessment should be completed by a competent person."
2	"The SSM 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."
3	"The SSM should be used in accordance with established good practice guidance and professional codes."
4	"The SSM is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice."
5	"Biodiversity units are a proxy for biodiversity and should be treated as relative values."
6	"The SSM is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance."
7	"Habitat interventions need to be realistic and deliverable within a relevant project timeframe."
8	"Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation."
9	*"The SSMs not enforce a minimum habitat size ratio for compensation of losses. However, proposals should aim to:* *• maintain habitat extent (supporting more, bigger, better and more joined up ecological networks) and* *• ensure that proposed or retained habitat parcels are of sufficient size for ecological function."*
Rules	
1	*"The trading rules of the SSM must be followed."*
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."*
3	*"To accurately apply the biodiversity metric formula, you must use the 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."*

5.7 Pre-development baseline habitats

5.7.1 The baseline habitat data from which net biodiversity change is calculated using the Phase 1 Habitat Survey completed by BMD in August 2024 (BMD.24.0117.DRE.001) and is provided in the Appendix: Plans. The Phase 1 Habitat Survey was conducted by BMD to industry standard at the time (JNCC, 2010).

5.8 Predicted post-development habitat

5.8.1 The SSM requires the following information to inform the predicted post-development development habitats.

- Habitat type;
- Habitat area or length;
- Habitat condition; and

- Strategic significance.

5.8.2 Plans depicting the post-enhancement retained, enhanced and created habitats of the Site are provided in the Appendix (Ref:BMD.24.0117.DRE.002– Proposed Landscape Plan).

5.9 Methodology for drawing and measuring

5.9.1 Measurements taken from the GIS have been input into the assumptions table and then into the Small Sites Statutory Biodiversity Metric calculation tool that has been used for this assessment.

5.9.2 The full completed Small Sites Statutory Biodiversity Metric Calculation Tool with supporting assessor comments is appended to this technical note.

5.10 Auditing biodiversity net gain as the development progresses

5.10.1 The specifics of the use of the Small Sites Statutory Biodiversity Metric in auditing biodiversity net gain achievements, as the development progresses, is currently under refinement and will be developed further as part of the secondary legislation required for implementation of the Environment Act 2021.

5.10.2 The predicted post-development baseline will be calculated from the following data;

- Plans provided in the appendix.
- Detailed plans, drawings, documents and specifications submitted for planning.
- Construction issue plans, drawings, and specifications (if available).
- As built information (if available).

6. APPLICATION OF GOOD PRACTICE BIODIVERSITY NET GAIN PRINCIPLES

6.1.1 Throughout the progression and implementation of the Scheme, the Good Practice Biodiversity Net Gain Principles have been applied.

6.1.2 Table 6.1 demonstrates how each principle, listed in Section 4, has been applied since the Ecological Assessment completed in 2024 and will be applied going forward.

Table 6.1 Application of the Good Practice Biodiversity Net Gain Principles

Principle	Application of the principles
Principle 1: Apply the mitigation hierarchy	There is some loss of low value amenity grassland, however these habitats have been compensated accordingly.
Principle 2: Avoid losing biodiversity that cannot be offset elsewhere	No irreplaceable habitats will be affected by the development.
Principle 3: Be inclusive and equitable	The Scheme will deliver Biodiversity Net Gain within the locality where biodiversity losses occur.
Principle 4: Address risk	The proposed auditing approach allows for risk to be assessed at appropriate intervals to ensure, as a minimum, the proposed future net gain will be achieved by the end of the development build-out period. Habitat creation risks are provided in the detail of the metric by default.
Principle 5: Make a measurable net gain contribution	Both quantitative and qualitative measures have been put in place to ensure that net gain is measurable. These are documented in this current report.
Principle 6: Achieve the best outcomes for biodiversity	A robust biodiversity baseline was completed in 2024 following best practice guidelines. This has allowed informed decisions to be made in relation to incorporating biodiversity into the most recent development proposals. The most recent baseline conditions have informed detailed soft landscape design and composition that is appropriate for the local conditions.
Principle 7: Be additional	The newly created habitats on site will be reflective of the wider landscape and will provide higher value habitat in a previously low value/built up area.
Principle 8: Create a net gain legacy	The designs of the Scheme illustrate the landscape areas to be implemented within the Scheme which will be subject to ongoing management. This will help ensure a net gain legacy is achieved.
Principle 9: Optimise sustainability	The principles within the design vision will be carried through design stages to implementation on the ground, therefore promoting sustainability.
Principle 10: Be transparent.	The detailed results of the Biodiversity Net Gain assessment are provided with this report.

7. APPLICATION OF PROFESSIONAL JUDGEMENT

7.1 Pre-Development Habitats

7.1.1 Table 7.1 below summarise the professional judgements made in relation to the baseline condition of habitats pre-development based on the available survey and data. Where information is lacking or not detailed enough, judgements are made based on standard default conditions for typical habitat types.

7.1.2 For the purposes of The Small Sites Statutory Biodiversity Metric, Phase 1 Habitat Types are converted into UK Hab habitat types, as informed by the conversion tool in the technical information tab within the metric. This applies to both baseline and created habitat type.

7.2 Post-Development Habitats

7.2.1 Table 7.2 below summarise the professional judgements made in relation to the predicted condition of created habitats. These judgements are based on the standard landscape types and aspirations for commensurate sites and are informed by a number of approved/verified planning submissions.

7.2.2 No irreplaceable habitats were recorded within the baseline.

7.2.3 Should detailed landscape proposals differ significantly from those used in the current calculation, an updated biodiversity impact assessment will be required to ensure continued net gain of biodiversity.

Table 7.1 Justification of condition and strategic significance of pre-development baseline habitats for the Site

Habitat Type	Justification	Condition	Strategic Significance
Improved grassland	A small area of improved grassland within the Site, species included cocksfoot, bent grass, dandelion, ribwort plantain, curly dock and common vetch.	Moderate	Area/compensation not in local strategy/no local strategy
Introduced shrub	A small area of introduced shrub to the south east of the Site	N/A	Area/compensation not in local strategy/no local strategy
Individual trees	The large oak within the Site	Moderate	Formally identified in local strategy
Hardstanding	There is an area of hardstanding that consists of a road for access/car parking.	N/A	Area/compensation not in local strategy/no local strategy
Notes [1] See the 'Assessor Comments' in the completed Small Sites Statutory Metric with regard to identification of these habitats and rationale for conversions of JNCC Phase 1 Habitats into the UK Habitat Classification system.			

Table 5.2 Justification of condition and strategic significance of post-development created & retained habitats for the Site

Habitat Type	Justification	Condition	Strategic Significance
Proposed			
Individual trees	10 small native trees in moderate condition are proposed to be planted.	Moderate	Area/compensation not in local strategy/no local strategy
Hardstanding	A new road and small plant store are proposed.	N/A - other	Area/compensation not in local strategy/no local strategy
Retained			
Hardstanding/developed land; sealed surface	The hardstanding is to be retained.	N/A - Other	Area/compensation not in local strategy/no local strategy
Individual trees	The large oak within the Site is to be retained	Moderate	Formally identified in local strategy
Improved grassland	The area of improved grassland within the Site is to be retained, with a small solar station (400m2) to be placed on top of the grassland.	Moderate	Area/compensation not in local strategy/no local strategy
Other neutral grassland	A small area of modified grassland is to be enhanced to wildflower, to include pollinator species.	Good	Area/compensation not in local strategy/no local strategy
Introduced shrub	A small area of introduced shrub to the south east of the Site	N/A	Area/compensation not in local strategy/no local strategy
Notes [1] See the 'Assessor Comments' in the completed Small Site Statutory Metric with regard to identification of these habitats and rationale for conversions of JNCC Phase 1 Habitats into the UK Habitat Classification system.			

8. RESULTS

8.1 Statutory Biodiversity Metric Results

8.1.1 The outcome of the biodiversity net gain assessment for area habitats is provided in Figure 8.1 and detailed in the supporting the Small Sites Statutory Biodiversity Metric.

8.1.2 As demonstrated, a positive habitat biodiversity unit change of 10.12% is anticipated based on the current creation proposals associated with retained grassland, enhanced wildflower grassland and 10 planted individual trees.

8.1.3 The assessment demonstrates the biodiversity net gain units that could be derived from the proposed creation at the Site is 0.1582 habitat units.

8.2 Metric Results

8.2.1 Results of the metric are summarised in table 8.1-8.3 below. A full copy of the Metric in Excel format will be supplied separately for detailed reference. Please note that some habitats within the baseline are retained.

Table 8.1 Small Sites Statutory Biodiversity Metric calculations – habitat baseline

Habitat	Area (m2)	Distinctiveness	Condition (autopopulated)	Total Habitat Units
Modified grassland	3030.00	Low	Moderate	1.21
Introduced shrub	70.00	Low	Condition Assessment N/A	0.01
Developed land; sealed surface	600.00	V.Low	N/A - Other	0.00
Rural tree	366.25	Medium	Moderate	0.3369
Total				1.5629

Table 8.2 Small Sites Statutory Biodiversity Metric calculations – habitats retained

Habitat	Area (m2)	Distinctiveness	Condition (autopopulated)	Total Habitat Units
Modified grassland	2680.00	Low	Moderate	1.15
Introduced shrub	70.00	Low	Condition Assessment N/A	0.01
Developed land; sealed surface	600.00	V.Low	N/A - Other	0.00
Rural tree	366.25	Medium	Moderate	0.3369
Total				1.5029

Table 8.3 Statutory Biodiversity Metric calculations – habitat creation

Habitat	Area (m2)	Distinctiveness	Condition	Total Habitat Units
Rural tree	406.94	Medium	Moderate	0.1244
Developed land; sealed surface	150.00	V.Low	N/A - Other	0.00
Total				0.1244

Table 8.3 Statutory Biodiversity Metric calculations – habitats enhanced

Habitat	Area (m2)	Distinctiveness	Condition	Total Habitat Units
Modified grassland – Other neutral grassland	200.00	Low -Medium	Moderate - Good	0.1738
Total				0.2239

8.3 Trading Rules

8.3.1 Trading rules are satisfied within the Metric.

Fig 8.1. Summary Biodiversity Net Gain Assessment – Habitats calculations for the Site (see supporting Small Sites Statutory Biodiversity Metric for detailed results and further information).

Site Name	Stane Street
Sheet Name	Headline Results

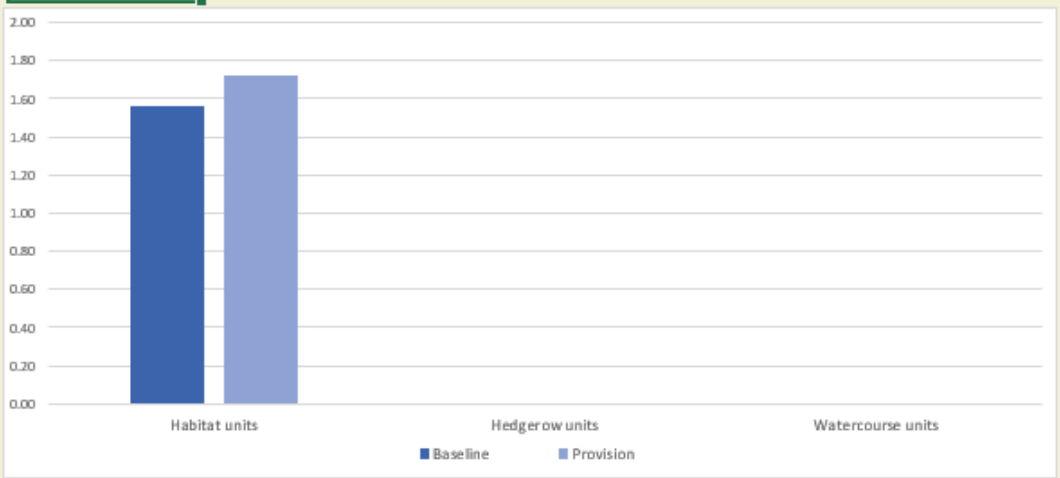
Headline Results

Headline	BNG Targets Met ✓
Trading Rules	Trading Rules Satisfied ✓
Next steps	Check for input errors/rule breaks present in the metric ⚠

Baseline Units	Habitat units	1.5629	
	Hedgerow units	Zero Units Baseline	
	Watercourse units	Zero Units Baseline	
Post-development Units	Habitat units	1.7211	
	Hedgerow units	0.0000	
	Watercourse units	0.0000	
Total net unit change	Habitat units	0.1582	✓
	Hedgerow units	0.0000	
	Watercourse units	0.0000	
Total net % change	Habitat units	10.12%	✓
	Hedgerow units	% target not appropriate	
	Watercourse units	% target not appropriate	

Habitats units required to meet target	0.0000
Hedgerow units required to meet target	0.0000
Watercourse units required to meet target	0.0000

Chart 1 - Unit change by habitat group



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10. GLOSSARY

10.1 Scientific Terms and Acronyms

CIEEM Chartered Institute of Ecology and Environmental Management, the professional organisation and provider of professional codes of conduct for ecological consultancy.

Non-native invasive species For the purposes of this report: species listed on Schedule 9 of the wildlife and Countryside Act 1981 (as amended). Widely naturalised species, such as grey squirrel, are excluded.

UK Priority Habitat and species A habitat or species identified as a priority for conservation in accordance with Section 40 of the Natural Environment and Rural Communities Act (2006). Section 40 of the Act places a duty on public authorities to have regard for the conservation objectives of these habitats and species.

SECT 41 NERC Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act.

APPENDICES



Site Boundary

Modified Grassland

Introduced Shrub

Hardstanding

Tree

Purpose of Issue

PLANNING

Bradley Murphy Design Ltd
6 The Courtyard
Hatton Technology Park
Dark Lane
Hatton
Warwickshire
CV35 8XB

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e: info@bradleymurphydesign.co.uk
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BMD

Client

Architectural Plants

Project

Stane Street, North Heath

Drawing Title

Phase 1 Habitat Map

Drawn	Checked	Approved	Date
KD	JP	JP	21/08/2024
Job no.	Scale	Sheet Size	Revision
24.0117	NA	A3	

Drawing Number

BMD.24.0117.DRE.001

Block Plan



Promap
LANDMARK INFORMATION

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Plotted Scale - **1:500**. Paper Size - **A4**

rural planning group

A. SITE PHOTOGRAPHS



Photograph 1: area of hardstanding, improved grassland and introduced shrub



Photograph 2: mature oak on improved grassland



Photograph 3: Introduced shrub within the Site



Photograph 4: Area of well managed improved grassland.



Photograph 5: Mature oak.



Photograph 6: longer sward of improved grassland.

B. METADATA, SURVEY CONDITIONS AND LIMITATIONS

B.1 Metadata

Factor	Detail
Data	Biodiversity Net Gain Assessment.
Reason for collection	To identify ecological constraints and to confirm/inform a Biodiversity Net Gain Assessment.
Location	Stane Street, North Heath. Approximately centered on national grid reference: TQ 07035 22552.
Date	12th August 2024
Method of collection	Ecological Assessment based on JNCC Phase 1 Habitat assessments.
Who collected	Katie Dalton MRSB ACIEEM Liliana Timms MSc

B.2 Survey Conditions

Date	Start Time	Cloud (%)	Sun	Precipitation
12/08/2024	15:00	5	Sunny	None

B.3 Limitations Review

Consideration	Comment
Survey & data	
Personal competence, i.e. qualifications, training, skills, understanding, experience	All survey works were undertaken by or directly supervised by personnel experienced in ecological surveying (see meta data). Katie Dalton BSc (Hons) MRSB ACIEEM has over 6 years' experience in ecological consultancy, including an experience of performing the survey work and assessments undertaken at Site, along with technical reporting. James Patmore CEcol CEnv MCIEEM has over 22 years experience in ecological consultancy, including an extensive amount of experience performing and directing the survey work and assessments undertaken at the Site.
Resources (equipment and/or personnel)	Appropriate resources and suitably qualified personnel were used.
Time spent surveying	Sufficient time was spent on site to undertake all surveys. No surveys were 'cut short'.
Data (e.g. arising from incomplete or inappropriate surveys)	The data collected were sufficient for the purpose of the works.
Lack of statistical robustness and higher uncertainties	Statistical analysis of data was not deemed necessary for the purpose of the current works.
Old and out of date data	The data used to complete this Biodiversity Net Gain Assessment were current and up to date.
Timing or seasonal constraints and suboptimal survey periods	The survey was conducted in August 2024. This is an appropriate survey period.
Partial use of and/or departures from good practice guidelines	All surveys accorded with the relevant best practice guidelines.
Site conditions & other factors	
Adverse weather conditions	No significantly adverse weather conditions were encountered during the survey work undertaken at the Site that would be considered to have significantly adversely impacted the reliability and/or accuracy of data collected.
Restricted access to site or part of site	All areas of the Site were accessed with no restrictions.

Consideration	Comment
Unrealistic deadlines	No restrictions on survey data collected or analysed to date are as a result or unrealistic deadlines.
Unproven or untested measures for mitigation and compensation	N/A
Evaluation of conservation value and impacts	The evaluation of the conservation value of habitats and species associated (or potentially associated) with the Site and impacts of the development, are based on the current information available. This evaluation will need to be reviewed and updated as necessary should a considerable period of time (24 months) elapse and/or more data from other survey work (on and within 1 km of the Site) becomes available.

C. DETAILED SURVEY RESULTS

C.1 Species Recorded on Site

English Name	Scientific Name
Plants	
Beech	*Fagus sylvatica*
Bent grass	*Agrostis sp.*
Bournemouth pine	*Pinus pinaster*
Bristly ox tongue	*Helminthotheca echioides*
Broadleaved plantain	*Plantago major*
Clover	*Trifolium* sp
Cocks foot	*Dactylis glomerata*
Common vetch	*Vicia sativa*
Compact rush	*Juncus conglomeratus*
Creeping thistle	*Cirsium arvense*
Curly dock	*Rumex crispus*
Daisy	*Bellis perennis*
Dandelion	*Taraxacum officinale*
Hornbeam	*Carpinus betulus*
Mock privet	*Phillyrea angustifolia*
Oak	*Quercus robur*
Ragwort	*Jacobaea vulgaris*
Ribwort plantain	*Plantago laneolata*
Yorkshire fog	*Holcus lanatus*

D. LEGAL AND POLICY FRAMEWORK

National Planning Policy Framework 2021

D.1.1 The NPPF places strong emphasis on achieving net gain in all developments (not just 'no net loss') through the planning systems purpose of achieving sustainable development (HM Government 2021b). The NPPF notes three overarching objectives to achieve sustainable development and opportunities to be taken to secure net gain in each. The environmental objective relates to biodiversity:

"to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy" (HM Government 2021b).

The Environment Act 2021

D.1.2 As of November 2021, The Environment Act 2021 states under Schedule 14 that provision are to be made "*for biodiversity gain to be a condition of planning permission in England*." (HM Government 2021a). Proposals indicate a minimum 10% net became mandatory in April 2024.