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# Biodiversity Net Gain Assessment

**Site Address**:

Hillside, Hurn Road, Holbeach Hurn, Spalding, South Holland, Lincolnshire, PE12 8JE

**Client**:

Mark von Haartman

**Assessment Date**:

4th August 2025

**Project:**

This report is prepared to inform a planning application with the South Holland District Council. The proposal is described as:

The construction of a new dwelling.

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025.**

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment may be required if the report is to be used any longer than 18 months after completion.

| Version Control | | | |
|---|---|---|---|
| **Status** | **Issue** | **Name** | **Date** |
| Draft | 0.1 | Millie Holland BSc (Hons), MSc; Consultant Ecologist | 01/08/2025 |
| Final | 1.0 | Millie Holland BSc (Hons), MSc; Consultant Ecologist | 05/08/2025 |

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## Site Location and Context

A baseline habitat map is provided in **Appendix 1**, a post development habitat map in **Appendix 2**, a proposed development plan in **Appendix 3**, headline BNG results in **Appendix 4**, and condition assessments in **Appendix 5**.

The site is centred on National Grid Reference TF 39274 26935 and measures approximately 0.04 hectares. It comprises a small section of a broader residential boundary. The immediate surroundings include suburban housing and well-vegetated gardens. The wider landscape features a mix of agricultural land, residential areas, and commercial premises. The nearest significant watercourse is the Holbeach River, located approximately 4.5 km to the west.

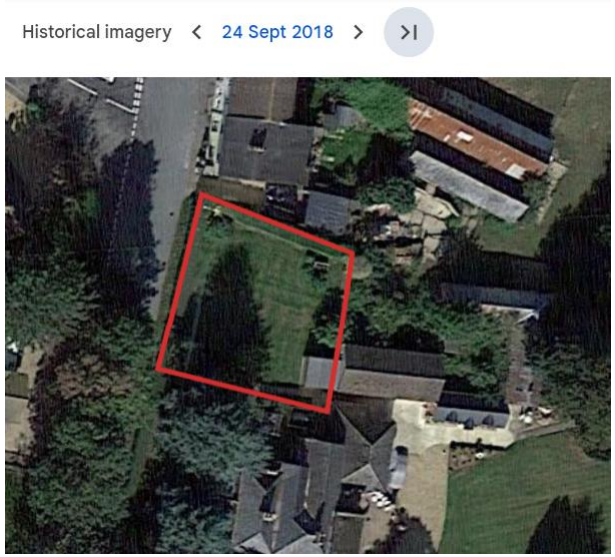
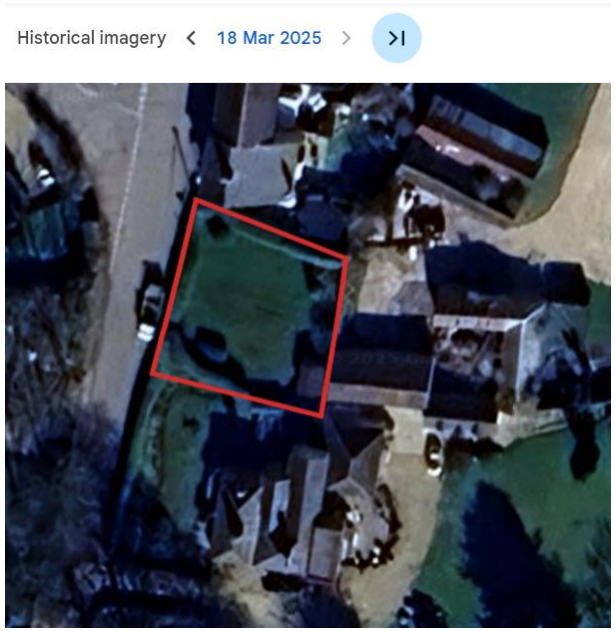
This report should be read in conjunction with the following documents:

- Statutory BNG Metric - Hillside, PE12 8JE_V1_5699256_05-08-25 (Arbtech Consulting Ltd., 2025)
- Proposed Plan (06, 2019)
- Preliminary Ecological Appraisal (PEA) - Hillside, PE12 8JE_V2_5699256_05-08-25 (Arbtech Consulting Ltd., 2025)

## Executive Summary

- The current landscaping proposal generates a net loss of area-based habitat units (-49.52%) and a net loss of linear-based habitat units (-34.81%) with unmet trading rules. In line with the Statutory Biodiversity Metric User Guide (2024), any loss of a habitat must be replaced on a like-for-like or like-for-better principle. At present, trading conditions are not satisfied for the loss of vegetated garden and non-native or ornamental hedgerows. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024).
- In order to achieve a +10% biodiversity net gain for area-based habitats, a minimum area-based unit score of 0.08 will need to be achieved. At present, there is a unit deficit of 0.04 units. Of these units, 0.04 units must be of vegetated garden satisfy trading rules.
- Similarly, to achieve a +10% biodiversity net gain for linear-based habitats, a minimum linear-based unit score of 0.05 units will need to be achieved. At present, there is a unit deficit of 0.02 units. Of these units, 0.02 units must be of a very low distinctiveness linear-based habitat to satisfy trading rules.

## Introduction

| BNG Informative | | |
|---|---|---|
| Habitat Degradation Statement | Date reflected by BNG calculations | 16th July 2025 |
| | The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2025). As evident in the screenshots of satellite imagery obtained from GoogleEarth dated 24th September 2018 and 18th March 2025, the site does not appear to have undergone any degradation. The habitats on site, and therefore biodiversity value of the site, is not considered to have undergone degradation since 30th January 2020.     | |
| Irreplaceable Habitat Statement | No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30th January 2020. | |
| Metric Version & Publication Date | Statutory Biodiversity Metric Calculation Tool first published 29th November 2023 with last updates to metric tools and user guides on 23rd July 2024. | |
| BNG Target Uplift | +10% | |

<table>
<tr><td>National Character Area (NCA)</td><td colspan="3">46 - The Fens</td></tr>
<tr><td rowspan="4">Strategic Significance</td><td colspan="3">Local Nature Recovery Strategy (LNRS) for Greater Lincolnshire has not yet been published. The strategy is currently in development, with consultation expected in late 2025 and final publication anticipated in early 2026. As such, there is no official habitat map or list of priority habitats currently available to inform the statutory Biodiversity Net Gain (BNG) metric. In the absence of a published LNRS, the BNG User Guide (July 2024, p. 27) provides default guidance: habitats may be considered of low strategic significance unless they are clearly aligned with wider biodiversity objectives or are named as priorities in draft documents or legacy strategies such as the Lincolnshire Biodiversity Action Plan.</td></tr>
<tr><td>Habitat</td><td>Baseline / Post-Development</td><td>Justification</td></tr>
<tr><td>Vegetated garden</td><td>Both</td><td>Vegetated garden refers to ornamental or managed domestic planting, typically composed of non-native or horticultural species. While such gardens can provide incidental habitat value for some wildlife, they are not recognised as priority habitats in the Lincolnshire Biodiversity Action Plan nor are they likely to be identified as such in the forthcoming LNRS. Given their limited contribution to ecological networks and biodiversity enhancement at the landscape scale, vegetated gardens are best classified as having low strategic significance in accordance with the statutory BNG metric guidance.</td></tr>
<tr><td>Non-native or ornamental hedgerows</td><td>Both</td><td>Non-native hedgerows lack the species diversity and ecological function of native, species-rich hedgerows, which are typically valued for their role in connectivity and wildlife support. The Lincolnshire BAP prioritised native hedgerow networks, and it is expected the forthcoming LNRS will follow similar principles. As non-native hedgerows do not align with the landscape-scale restoration or habitat connectivity goals outlined in existing or emerging policy, they should be considered of low strategic significance under the statutory metric.</td></tr>
<tr><td colspan="4">Limitations</td></tr>
<tr><td colspan="4">There were no specific limitations to the assessment.</td></tr>
</table>

## Baseline

| Baseline Biodiversity Value: On-Site | | | | |
|---|---|---|---|---|
| **Area-Based Habitats (A-1)** | | | | |
| **Habitat** | **Area (ha)** | **Description** | **Condition Assessment** | **Strategic Significance** |
| Building | 0.001389367 | A single timber-framed shed is located in the eastern portion of the site. The structure is currently in use for domestic storage purposes and is of standard construction with a felt-covered pitched roof. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | Low Strategic Significance |
| Vegetated garden | 0.035726037 | The site is predominantly composed of vegetated garden habitat, classified under the UK Habitat Classification (UKHab) system as Urban (u1), with secondary codes Vegetated garden (828) and Introduced shrub (847). This habitat reflects a typical residential garden setting, featuring a mixture of managed grassland and ornamental shrubbery, with some areas exhibiting a slightly overgrown character. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | |
| Developed land; sealed surface | 0.005207111 | A hardstanding path is present to the south of the site. This path originates from the public road to the west and extends through the site, providing access to the wider landholding. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | |

| Baseline Biodiversity Value: On-Site | | | | |
|---|---|---|---|---|
| **Linear-Based Habitats (B-1)** | | | | |
| **Habitat** | **Length (km)** | **Description** | **Condition Assessment** | **Strategic Significance** |
| Non-native or ornamental hedgerows | 0.048143351 | The hedgerow is dominated by garden privet, an ornamental species commonly used in domestic settings, with occasional occurrences of dog rose and English ivy. The structure is relatively uniform, lacking diversity in both woody species. | Habitat condition pre-determined as 'Poor' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | **Low** Strategic Significance |

## Post-Development

| Post-Development Biodiversity Value: On-Site | | | | | |
|---|---|---|---|---|---|
| **Area-Based Habitats** | | | | | |
| | **Habitat** | **Area (ha)** | **Description** | **Condition Assessment** | **Strategic Significance** |
| **Retained (A-1)** | Vegetated garden | 0.018035664 | Retained vegetated garden to the east of the site. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | Low strategic significance |
| **Created (A-2)** | Building | 0.008443093 | Proposed residential dwellings. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | |
| | Developed land, sealed surface | 0.016265481 | Hardstanding drive way and associate patio. | Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | |
| **Enhanced (A-3)** | Not applicable. | | | | |

| Post-Development Biodiversity Value: On-Site | | | | | |
|---|---|---|---|---|---|
| **Linear-Based Habitats** | | | | | |
| | **Habitat** | **Length (km)** | **Description** | **Condition Assessment** | **Strategic Significance** |
| **Retained (B-1)** | Non-native or ornamental hedgerows | 0.048143351 | Retained hedgerow that is dominated by garden privet, an ornamental species commonly used in domestic settings, with occasional occurrences of dog rose and English ivy. | Habitat condition pre-determined as 'Poor' as detailed within the Statutory Biodiversity Condition Assessment Supplement. | **Low** Strategic Significance |
| **Created (B-2)** | Not applicable | | | | |
| **Enhanced (B-3)** | Not applicable | | | | |

## Change of Biodiversity Value

| | | Biodiversity Units | | |
|---|---|---|---|---|
| | | **Area-Based** | **Linear-Based** | **Watercourse-Based** |
| **On-Site** | Baseline | 0.07<br>❖ Developed land, sealed surface (0 units)<br>❖ Buildings (0 units)<br>❖ Vegetated garden (0.07 units) | 0.05<br>❖ Non-native or ornamental hedgerow (0.05 units) | ❖ Not applicable |
| | Post-Development | ❖ Developed land, sealed surface (0 units)<br>❖ Buildings (0 units)<br>❖ Vegetated garden (0.04 units) | 0.03<br>❖ Non-native or ornamental hedgerow (0.03 units) | |
| | Net Change | -49.52% | -34.81% | |
| **Off-Site** | Baseline | ❖ Not applicable | ❖ Not applicable | |
| | Post-Development | | | |
| | Net Change | | | |
| **Overall Net Change** | | **-49.52%** | **-34.81%** | |

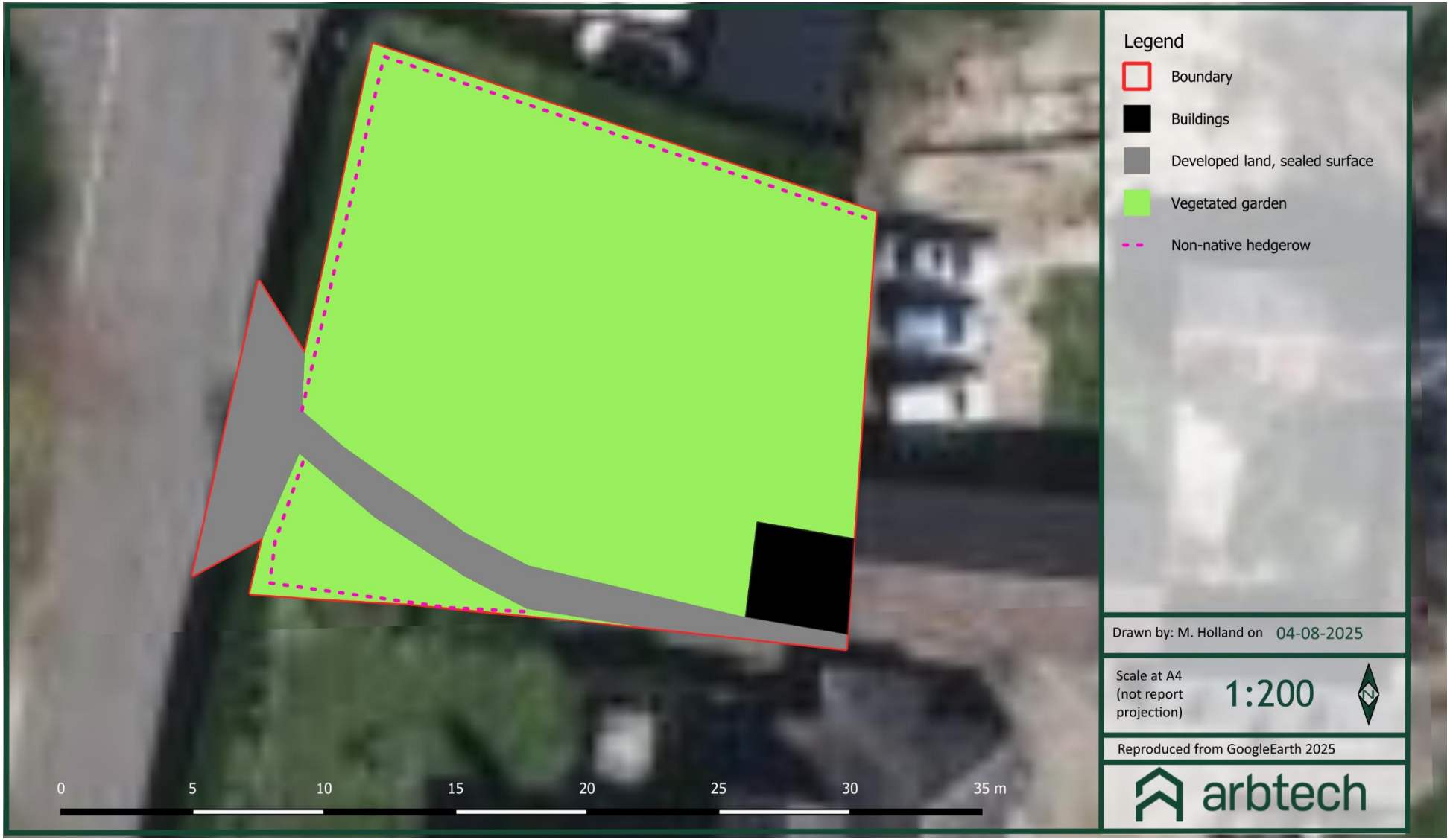
## Results, Discussion, and Next Steps

| **BNG Informative** | |
|---|---|
| Results | The current landscaping proposal generates a net loss of area-based habitat units (-49.52%) and a net loss of linear-based habitat units (-34.81%) with unmet trading rules. In line with the Statutory Biodiversity Metric User Guide (2024), any loss of a habitat must be replaced on a like-for-like or like-for-better principle. At present, trading conditions are not satisfied for the loss of vegetated garden and non-native or ornamental hedgerows. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024).<br><br>In order to achieve a +10% biodiversity net gain for area-based habitats, a minimum area-based unit score of 0.08 will need to be achieved. At present, there is a unit deficit of 0.04 units. Of these units, 0.04 units must be of vegetated garden satisfy trading rules.<br>Similarly, to achieve a +10% biodiversity net gain for linear-based habitats, a minimum linear-based unit score of 0.05 units will need to be achieved. At present, there is a unit deficit of 0.02 units. Of these units, 0.02 units must be of a very low distinctiveness linear-based habitat to satisfy trading rules. |
| Recommendations and Next Steps | There is limited scope on site, and this provision may not be possible to achieve within the redline boundary or on other owned land, given the size of the proposed development area and the limited amount of soft landscaping within the parcel. In addition, the BNG User Guide (2024, p. 13) confirms that vegetated garden is not a permitted habitat for delivering off-site or on-site biodiversity gain. While vegetated gardens may be retained as part of the landscape design, they cannot be used to offset habitat losses or contribute towards measurable Biodiversity Net Gain under the statutory metric.<br><br>Based on the proposed plans, it is unlikely that net gain will be achieved by ways of habitat creation/enhancement without significant changes to the proposals on site or require unfeasible commitments off-site. As such, a financial contribution to off-site ecological enhancements (i.e. purchasing biodiversity units) within an approved scheme is required to make up the +10% net gain for area-based habitat units. The mechanism for securing this off-setting will need to be proposed to and confirmed by the LPA and would be linked to the application through a planning obligation Section 106 (s106) agreement. The proposed habitat compensation must be of an appropriate distinctiveness to meet the trading rules of BNG.<br><br>A summary as to what off-site units will be required is detailed in the table below. |

| | | Distinctiveness | Broad Habitat Group | Habitat | Units Required |
|---|---|---|---|---|---|
| | | Low | Urban | Vegetated garden | 0.04 |
| | | | | **Total** | **0.04** |
| | **Linear-Based** | Very low | Hedgerow | Non-native or ornamental hedgerow | 0.02 |
| | | | | **Total** | **0.02** |

| | |
|---|---|
| Pre-Commencement | A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered.<br><br>These additional requirements can only be actioned following the finalisation of the BNG assessment – be it on-site or off-site net gains sought. |
| **BNG Mitigation Hierarchy** | |
| **Avoidance** | Some areas of the vegetated garden will be retained. |
| **Minimisation** | Most of the non-native hedgerow will be retained. |
| **Mitigation** | Offsite credits will be required to get the 10% gain. |
| **Offset** | |

## Appendix 1: Baseline Habitat Plan



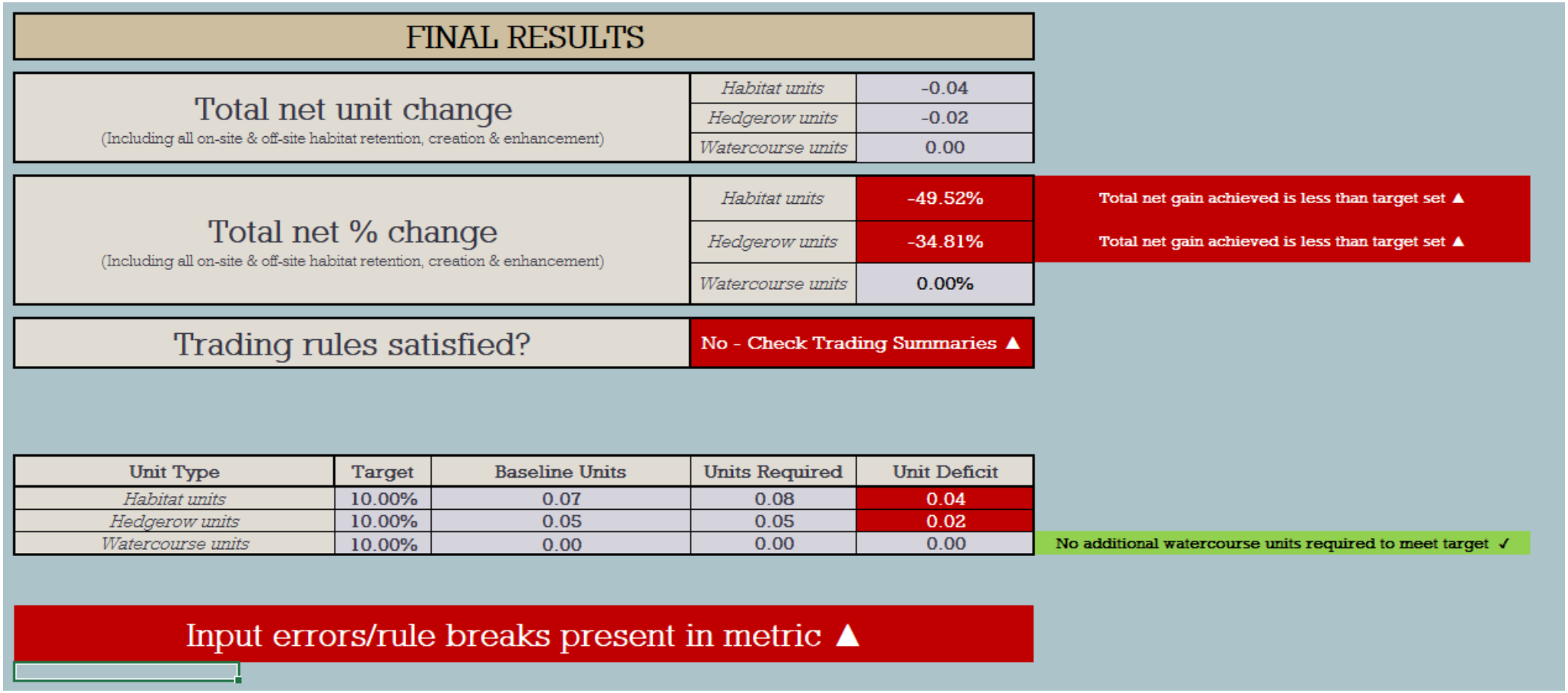
## Appendix 2: Post-Development Habitat Plan



## Appendix 3: Proposed Development Plan



## Appendix 4: Headline BNG Results



| FINAL RESULTS | | | |
|---|---|---|---|
| Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | -0.04 | |
| | *Hedgerow units* | -0.02 | |
| | *Watercourse units* | 0.00 | |
| Total net % change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | -49.52% | Total net gain achieved is less than target set ▲ |
| | *Hedgerow units* | -34.81% | Total net gain achieved is less than target set ▲ |
| | *Watercourse units* | 0.00% | |
| Trading rules satisfied? | No - Check Trading Summaries ▲ | | |

| Unit Type | Target | Baseline Units | Units Required | Unit Deficit | |
|---|---|---|---|---|---|
| *Habitat units* | 10.00% | 0.07 | 0.08 | 0.04 | |
| *Hedgerow units* | 10.00% | 0.05 | 0.05 | 0.02 | |
| *Watercourse units* | 10.00% | 0.00 | 0.00 | 0.00 | No additional watercourse units required to meet target ✓ |

Input errors/rule breaks present in metric ▲

## Appendix 5a: Baseline Habitat Condition Assessment Sheets

Not applicable.