



Biodiversity Baseline Assessment – *Final report*

Heather Way House, Fenton Road, Stubton

February 2026

Prepared by Associate Ecologist Rob Coles PhD on behalf of Archer Ecology on behalf of:

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Report Overview	
Scheme reference	Heather Way House, Stubton
Works overview	Development comprising five detached residential properties
Revision	Version 1 (Final)
Issued	06.02.2026
Prepared by	<div style="background-color: black; width: 200px; height: 40px; margin-bottom: 5px;"></div> Rob Coles, PhD – Associate Ecologist
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EXECUTIVE SUMMARY

Archer Ecology Ltd was commissioned by Mike Sibthorp Planning to complete a Biodiversity Baseline Assessment (BBA) with respect to proposals for the redevelopment of a plot of land at Heather Way House in Stubton, Newark-on-Trent. The application site is located in Stubton, a village encompassed by an agricultural setting, and is situated approximately 8.5km south-east of the market town of Newark-on-Trent.

The BBA involved a desk study and review of ecological data, including a UKHabs survey and habitat walkover completed by Associate Ecologist Rob Coles PhD on behalf of Archer Ecology Ltd on 23rd January 2026. During the walkover, baseline data were recorded on the current habitat composition, condition, area and floral species of the site as well as the presence of any invasive non-native species, where observable.

The Statutory (official) Biodiversity Metric calculation tool was used to generate a pre-works biodiversity unit value for the site. The calculator indicates that the site is worth **2.4 biodiversity units (comprising 2.18 habitat units and 0.22 hedgerow units) at baseline**. To achieve the required 10% gain in biodiversity units post works (i.e., 'biodiversity net gain'), **an additional 0.22 habitat units and 0.02 hedgerow units must be created** at the site. Post-development the site must be worth at least 2.64 biodiversity units (comprising 2.4 habitat units and 0.24 hedgerow units).

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1.0 INTRODUCTION

NB: This Biodiversity Assessment has been prepared in accordance with the accompanying Statutory Biodiversity Metric Calculation Tool and Condition Assessment sheets and should be read alongside these supporting deliverables.

1.1 Background

1.1.1 Archer Ecology Ltd was commissioned by Mike Sibthorp Planning to complete a Biodiversity Baseline Assessment (BBA) with respect to proposals for the redevelopment of a plot of land at Heather Way House in Stubton, Newark-on-Trent (hereafter referred to as ‘the application site’). The application site is located in Stubton, a village encompassed by an agricultural setting, and is situated approximately 8.5km south-east of the market town of Newark-on-Trent.

1.1.2 The location of the application site, centred at Ordnance Survey Grid Reference (OSGR) SK 87255 49015, is shown in Figure 1, below.

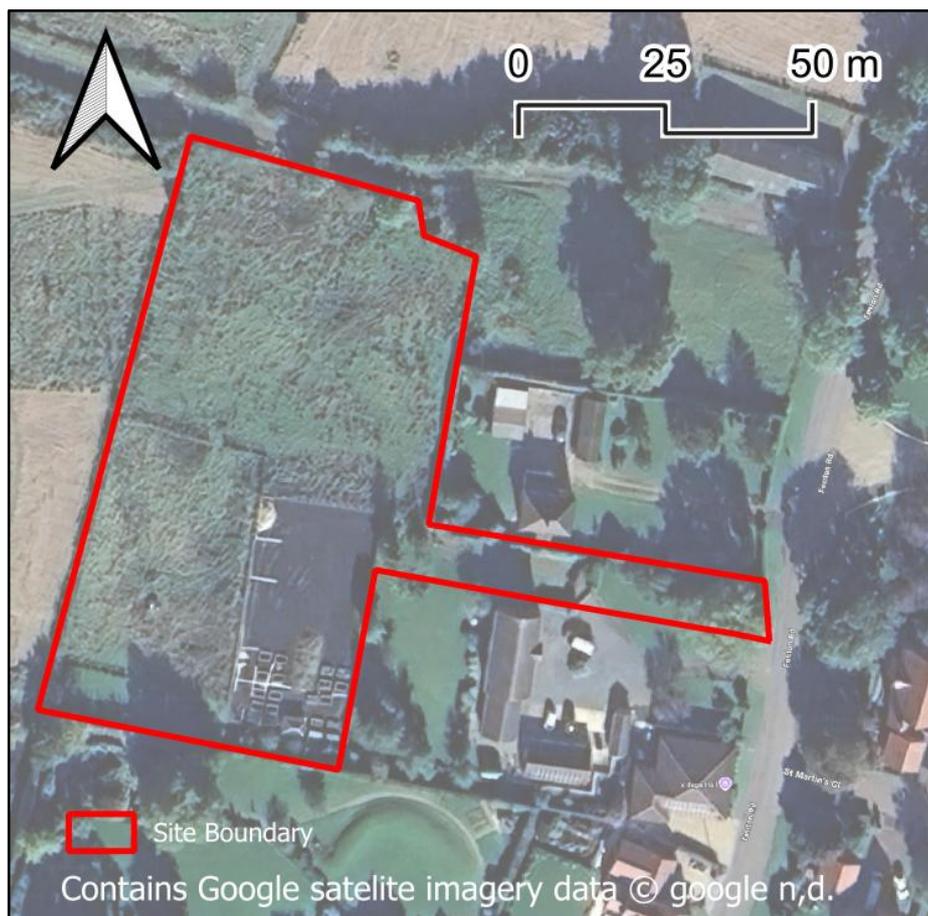


Figure 1 – Location of the application site in context with the local landscape

1.2 Objectives

- 1.2.1 The purpose of the BBA is to determine the pre-works biodiversity unit value for the site and to calculate the number of post-works units required to achieve +10% biodiversity units (i.e., 'biodiversity net gain') using the Statutory Biodiversity Metric Calculation Tool. This is accomplished using information pertaining to the on-site habitat condition, area and species composition as well as determining the strategic significance of the site and its attributing habitats.

1.3 Proposed Works

- 1.3.1 In line with the Illustrative Block Plan provided at the time of being commissioned (prepared by Mike Sibthorp Planning – Drawing number MSP.2173; Revision 002c, see Appendix I) the current proposals involve the construction of five detached residential properties together with associated garages and gardens. The proposals also include the provision of a new access road, to the east of the proposed properties, which will extend eastwards to reach Fenton Road.

2.0 METHODOLOGY

2.1 Biodiversity Baseline Assessment

2.1.1 The BBA was undertaken following guidance contained within CIRIA publication *Biodiversity Net Gain – Good Practice Principles for Development*¹ and involved the following components:

- A desk-based assessment using Multi Agency Geographic Information for the Countryside (MAGIC) website² and other online resources to identify priority habitats and statutory/non-statutory protected nature conservation sites, such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Special Area of Conservation (SACs) occurring on or within significant proximity to the site, as well as a review of the Local Nature Recovery Strategy (LNRS), where available;
- The assessment also included a review of pre-existing ecological data for the application site, including the results of a UKHabs walkover which was completed of the application site on 23rd January 2026 (Photographs presented under Appendix II);
- Measuring habitat parcels on the ground, combined with the use of online measuring tools (including Google Maps Area Calculator Tool³) and mapping the habitat baseline using Quantum Geographic Information System (QGIS) software (UKHabs map included under Appendix III);
- Identifying habitat distinctiveness and undertaking a condition assessment based upon the UK Habitat Classification⁴ system, *The Statutory Biodiversity Metric - Technical Annex 1: Condition Assessment Sheets and Methodology* and other appropriate condition criteria;
- Identification of any irreplaceable habitats (with reference to Technical Note 4.0 of CIRIA guidelines) and/or invasive, non-native species occurring within the works footprint;

¹ Baker, J., Hoskin, R. and Butterworth, T. (2019). *Biodiversity net gain - Good practice principles for development*. CIRIA

² www.magic.gov.uk accessed June 2025

³ Google (2021) *Daft Logic – Google Maps Area Calculator V6.20* [online]. Google. Available at: <https://www.daftlogic.com/projects-google-maps-area-calculator-tool.htm> [Accessed 16th June 2025].

⁴ UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (available at <https://www.ukhab.org>). UKHab Ltd

- An assessment of habitat degradation which has occurred on the application site since 30th January 2020. The assessment involved a review of historic satellite imagery of the application site to determine the pre-existing habitat composition and condition relative to the findings of the baseline survey. Where habitat degradation has occurred, the presence of existing or pre-existing habitats providing the highest biodiversity unit scoring (based upon the outcome of the habitat distinctiveness and condition of each habitat parcel) was used to represent the current habitat baseline (as represented in the UKHabs map featured under Appendix III of this report);
- Inputting pre-development habitat data into the '*Statutory (official) Biodiversity Metric calculation tool*', issued in 2024. This would be used to determine a biodiversity unit scoring; and

2.1.2 This Biodiversity Assessment was undertaken by Rob Coles PhD, who has over 11 years' experience as a full-time consultant ecologist. Rob is proficient in undertaking habitat surveys and has completed numerous biodiversity assessments and calculations, particularly within the housing, commercial and rail sectors.

3.0 RESULTS

3.1 Desk-based assessment

European / International designated sites for nature conservation

- 3.1.1 No European / international designated sites for nature conservation are located within 10km of the application site. Such sites are, therefore, not considered to be potential receptors with respect to the proposed works and the application site is considered as being within an '*Area not in local strategy*' with respect to strategic significance pertaining to European / international designated sites for nature conservation.

National Statutory designated sites for nature conservation

- 3.1.2 No statutory designated sites for nature conservation were identified within 2km of the application site. Such sites are, therefore, not considered to be potential receptors with respect to the proposed works and the application site is considered as being within an '*Area not in local strategy*' with respect to strategic significance pertaining to nationally designated sites for nature conservation.

Non-statutory designated sites for nature conservation

- 3.1.3 The application site does not fall within the boundary of, nor is it adjacent to, any non-statutory designated sites for nature conservation. Subsequently, the application site is considered as being within an '*Area not in local strategy*' with respect to strategic significance pertaining to non-statutory designated sites for nature conservation.

Priority Habitats

- 3.1.4 No priority habitats were identified on or within significant proximity to the application site. Subsequently, priority habitats are not considered to be potential receptors with respect to the proposed works and the application site is considered as falling within an '*Area not in local strategy*' with respect to priority habitats.

Local Nature Recovery Strategy

- 3.1.5 At the time of preparing this report, the Local Nature Recovery Strategy (LNRS) for Greater Lincoln is in the draft phase.

Central Lincolnshire Local Plan

- 3.1.6 In accordance with the Central Lincolnshire Local Plan Policies map, as presented via the online StatMap Aurora Mapping tool⁵, the application site falls within a strategic green corridor. Subsequently the application site is regarded as being within an '*Area formerly identified in local strategy*' with respect to strategic significance pertaining to local plans.

⁵ Stat Map (2025). *Central Lincolnshire Local Plan* [online]. Statmap. Available at: [Aurora \(statmap.co.uk\)](https://www.statmap.co.uk) [Accessed 06.02.2026].

3.2 UK Habitat Classification

3.2.1 The application site is situated within a mixed residential and rural setting with further residential properties occurring to the north, south and east. Agricultural land is present to the west of the site. All habitats established within the boundary of the application site are described under the following sub-headings, with Polygon (P), Tree (T), and Linear (L) habitats referenced in accordance with the locations shown in the UKHabs map under Appendix III.

Polygon reference	-	P1 and P3
Habitat type	-	Urban – Artificial unvegetated, unsealed surface
UKHabs code	-	u1c
Habitat value	-	Of site value

3.2.2 P1 comprises a gravelled area, located to the west of Heather Way House, while P3 is a gravelled path connecting the main entrance of the premises to a large area of modified grassland (see Photograph 1, Appendix II).

Polygon reference	-	P2
Habitat type	-	Urban – Sparsely Vegetated Urban Land
UKHabs code	-	u1f
Habitat value	-	Of site value

3.2.3 P2 consists of an area of sparsely vegetated urban land which comprises ruderal and herbaceous species including common mallow *Malva sylvestris*, opium poppy *Papaver somniferum*, common nettle *Urtica dioica*, red dead-nettle *Lamium purpureum*, groundsel *Senecio vulgaris*, common thistle *Cirsium vulgare*, bristly oxtongue *Helminthotheca echinoides* and common mouse-ear *Cerastium fontanum* (see Photograph 2, Appendix II).

3.2.4 *NB: It is apparent, through observations of the site using historic satellite imagery, that P2 was formerly composed of 'modified grassland'. Whilst habitat degradation has since occurred, the replacement habitat (u1f) provides a higher condition scoring than the previous habitat type, and so u1f has been selected to represent the baseline of P2.*

Polygon reference	-	P4
Habitat type	-	Modified grassland
UKHabs code	-	g4
Habitat value	-	Of site value

3.2.5 P4 comprises an area of regularly managed modified grassland consisting predominantly of perennial ryegrass *Lolium perenne* with occasional cleavers *Galium aparine*, creeping buttercup *Ranunculus repens* and small-flowered crane's-bill *Geranium pusillum* (see Photograph 3, Appendix II). P4 is of low species diversity, with no more than 3–4 species identified within any given 1m².

Polygon reference - **P5 and P6**
Habitat type - **Heathland and shrub: Bramble scrub**
UKHabs code - **h3d**
Habitat value - **Of site value**

3.2.6 P5 and P6 consist of areas of sparse bramble scrub *Rubus fruticosus agg.*, located in the north-western extent of the application site, adjacent to the site boundary (see Photograph 4, Appendix II).

Polygon reference - **P7**
Habitat type - **Heathland and shrub: Blackthorn scrub**
UKHabs code - **h3a**
Habitat value - **Of site value**

3.2.7 P7 represents an area of blackthorn scrub *Prunus spinosa* located in the north-western corner of the application site, adjacent to the site boundary (see Photograph 5, Appendix II).

Polygon reference - **P8, P9, and P10**
Habitat type - **Introduced shrub**
UKHabs code - **u1b6847**
Habitat value - **Of site value**

3.2.8 P8, P9 and P10 include areas of introduced native and ornamental shrubs consisting of species such as honeysuckle *Lonicera periclymenum*, *Hydrangea* sp., kowhai *Sophora* sp., dogrose *Rosa canina*, and yew *Taxus baccata* (see Photograph 6, Appendix II).

Polygon reference - **H1, and H3**
Habitat type - **Hedgerows: Non-native and ornamental hedgerows**
UKHabs code - **h2b**
Habitat value - **Of site value**

3.2.9 H1 comprises a hedgerow which includes dominant Himalayan firethorn *Pyracantha crenulate*, frequent beech *Fagus sylvatica*, and occasional privet *Ligustrum* sp. H3, which connects the pathway (P3) to the north-eastern site boundary, comprises solely of *Leylandii* sp., (see Photographs 7 and 8, Appendix II).

Polygon reference - **H2**
Habitat type - **Hedgerows: Native hedgerows**
UKHabs code - **h2a**
Habitat value - **Of site value**

3.2.10 H2 represents a beech hedgerow which runs along the entire length of the eastern side of P1; see Photograph 9, Appendix II.

Polygon reference - **T1 – T8**
Habitat type - **Individual Trees – Rural tree**
UKHabs code - **200**
Habitat value - **Of site value**

3.2.11 Trees T1 – T5 consist of fruit trees and T6 and T7 are both young hawthorn *Crataegus monogyna*, while T8 is a young ash tree *Fraxinus excelsior* (see Photograph 10, Appendix II). All trees featured a Diameter at Breast Height (DBH) of <7.5cm and have, therefore, been omitted from the accompanying Metrics.

Polygon reference - **T9**
Habitat type - **Individual Trees – Rural tree**
UKHabs code - **200**
Habitat value - **Of local value**

3.2.12 T9 is an unidentified species of tree which, with reference to historic satellite imagery, was felled in April 2022 and was situated within the centre of the south-west portion of the field (P4); see Photographs 11 and 12, Appendix II. From viewing the canopy spread as shown on historic aerial imagery, and from judging the size of the remaining cut stump, it is expected that this tree once featured a DBH not exceeding 90cm.

Polygon reference - **T10**
Habitat type - **Individual Trees – Rural tree**
UKHabs code - **200**

Habitat value - Of local value

- 3.2.13 T10 is a mature weeping willow tree *Salix babylonica* which has been recently felled and was situated within the far north-east corner of the application site (see Photograph 13, Appendix II). From viewing the canopy spread as shown on historic aerial imagery, and from judging the size of the remaining cut stump, it is expected that this tree once featured a DBH not exceeding 90cm.

3.3 Biodiversity Baseline Assessment

- 3.3.1 *NB: The biodiversity baseline assessment has been prepared in accordance with the accompanying Statutory Biodiversity Metric Calculation Tool and Condition Assessment sheets and should be read alongside these supporting deliverables.*
- 3.3.2 The site habitat baseline information was inputted into the Statutory Biodiversity Metric to generate a pre-works biodiversity unit value. No irreplaceable habitats or INNS were identified within the application site.
- 3.3.3 The Statutory (official) Biodiversity Metric calculation tool was used to generate a pre-works biodiversity unit value for the site. The calculator indicates that the site is worth **2.4 biodiversity units (comprising 2.18 habitat units and 0.22 hedgerow units) at baseline**. To achieve the required 10% gain in biodiversity units post works (i.e., 'biodiversity net gain'), **an additional 0.22 habitat units and 0.02 hedgerow units must be created** at the site. Post-development the site must be worth at least 2.64 biodiversity units (comprising 2.4 habitat units and 0.24 hedgerow units).

APPENDIX I – ILLUSTRATIVE BLOCK PLAN



P & K King
Land at Heatherway House, Fenton Road, Stubton
ILLUSTRATIVE BLOCK PLAN
Drawing Ref: MSP.2173/002C
Scale: 1:500 @ A3


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APPENDIX II – PHOTOGRAPHS



Photograph 1 – Artificial unvegetated, unsealed surface (P1)



Photograph 2 – Sparsely vegetated land (P2)



Photograph 3 – Modified grassland (P4)



Photograph 4 – Bramble scrub (P6)



Photograph 5 – Blackthorn scrub (P7)



Photograph 6 – Introduced shrub (P10)



Photograph 7 – Non-native hedgerow (H1)



Photograph 8 – Native hedgerow (H2)



Photograph 9 – Non-native hedgerow (H3)



Photograph 10 – Ash tree (T8)



Photograph 11 – Felled tree (T9)



Photograph 12 – Felled tree (T9)



Photograph 13 – Felled tree (T10)

APPENDIX III – UK HABS MAP

