

**Whitcher Wildlife Ltd.
Ecological Consultants.**



**BARROW ROAD, BARTON-UPON-
HUMBER.**

OS REF: TA 04218 21589.

**BIODIVERSITY ENHANCEMENT
MANAGEMENT PLAN.**

Ref No: 220776/BEMP/2

Date: 31st August 2023.

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1. INTRODUCTION.

1.1. Strata are applying for planning consent to build one hundred and seventy-three new residential dwellings on an area of arable land to the south of Barrow Road, to the east of the town of Barton-upon-Humber.

1.2. Prior to any development of the site, Strata have requested that a Biodiversity Enhancement Management Plan (BEMP) be created to detail the biodiversity enhancement measures which will be provided by the development.

1.3. This document is designed to detail such measures and to evidence how they will be of benefit to the flora and fauna of the local area, along with how they will be managed long term.

2. SITE DESCRIPTION.

2.1. The survey area is an arable field located just south of Barrow Road, to the east of Barton-upon-Humber.

2.2. The aerial photograph below shows the extent of the site.



2.3. A Preliminary Ecological Appraisal, along with bird surveys, have been carried out by Whitcher Wildlife during 2022. Upon completion of these surveys, an Ecological Impact Assessment was prepared using DEFRA Metric 3.1 calculations.

2.4. Below is a map to show the baseline habitats on the site.



2.5. The habitats which currently exist on site are all of low value, with the site being almost entirely arable, with a small area of ruderals in the south-west.

2.6. The only habitats of higher value are the hedgerows which exist around the perimeter of much of the site.

2.6. The following table shows the area baseline biodiversity units for the area within the red line development boundary.

Habitat Type	Area in ha	Distinctiveness	Condition Assessment	Biodiversity Units.
Cereal Crops	5.6755	Low	N/A	11.35
Modified Grassland	0.2908	Low	Poor	0.58
Modified Grassland	0.1993	Low	Poor	0.4
Ruderal/Ephemeral	0.0273	Low	Poor	0.05
Developed Land	0.36841	V.Low	N/A	0
Total	6.56ha			12.39Bu

2.7. The following table shows the linear baseline biodiversity units for the area within the red line development boundary.

Hedgerow Type	Length in km	Distinctiveness	Condition Assessment	Biodiversity Units.
Native Hedgerow	0.774	Low	Poor	1.55
Total	0.774km			1.55Bu

2.8. Almost all area habitats within the red line boundary will be lost to facilitate the development, with the exception of Barrow Road to the north and its associated grass verges.

3. HABITAT CREATION AND MONITORING SPECIFICATION.

3.1. The plan below shows the proposed landscaping plan for the site.



3.2. The tables below outline the areas of each type of habitat shown in the landscaping plan that will be created on site to offset the loss of habitat and to deliver 8.44 habitat Bu and 1.84 hedgerow Bu post development.

Habitat Type	Area in ha	Distinctiveness	Condition Assessment	Biodiversity Units.
Developed Land; Sealed Surface (Created)	3.7866	Low	N/A	0.00
Developed Land; Sealed Surface (Retained)	0.3146	Low	N/A	0.00
Vegetated Garden	1.6228	Low	N/A	3.13
Mixed Scrub	0.0229	Medium	Moderate	0.15
Modified Grassland (created)	0.1008	Low	Poor	0.19

Modified Grassland (retained)	0.1791	Low	Poor	0.36
Other Neutral Grassland	0.5319	Medium	Moderate	3.56
Urban Trees*	0.3418	Medium	Moderate	1.04
Total	6.56ha			8.44bu

Hedgerow Type	Length in km	Distinctiveness	Condition Assessment	Biodiversity Units.
Native Hedgerow (Retained)	0.660	Low	Poor	1.32
Native Hedgerow (Created)	0.269	Low	Poor	0.52
Total	0.929km			1.84Bu

3.3. Details are provided below of how each habitat will be created.

3.4. Vegetated Gardens.

3.4.1. 1.6228ha of the development will be the vegetated gardens of the new residential properties.

3.4.2. The topsoiled area is to be graded to allow the turf to sit flush with the adjoining hardstanding.

3.4.3. The surface will then be lightly and uniformly firmed by rolling or treading.

3.4.4. An even application of approved fertiliser will be applied and raked in. Turf will then be laid during suitable weather conditions.

3.4.5. The turf will be watered regularly until it becomes established.

3.5. Introduced and Native Scrub.

3.5.1. A total area of 0.0229ha of shrub will be planted to the northwest of the site. This will include a mix of evergreen and deciduous shrubs. The species include scented and berry bearing species that will attract a variety of invertebrates and provide a food source for birds.

3.5.2. The scrub will be planted into good quality fibrous topsoil incorporating organic compost and slow releasing fertiliser in accordance with good horticulture practice.

3.5.3. All plants will be good quality, sturdy, well rooted and non-refrigerated with well branched heads and fibrous root systems.

3.6. Other Neutral Grassland.

3.6.1. An area of 0.5319ha of the site will be seeded with Germinal RE9 Farmland Mixture or similar, which is a grass and wildflower mix intended to replicate species found in typical arable margins. This will replicate a MG6 NVC grassland which is sympathetic to what may typically be found within the local arable area.

3.6.2. Good quality, low fertility subsoil will be spread and cultivated using a disc harrow or rotavator then further cultivated and rolled to produce a firm seed bed and seeded with the specified seed mixes at the suppliers' recommended rates.

3.6.3. Any undesirable or invasive species identified will be recorded and reported so that they can be removed using the appropriate methods.

3.6.4. A relaxed mowing schedule will be implemented, which mowing taking place at a maximum of every six weeks throughout the growing period. This will allow for the flowering of any species within the grassland.

3.7. Amenity Grassland.

3.7.1. The remaining areas of grassland will be an amenity mix intended for recreational activities, higher footfall and a general tidier appearance.

3.7.2. The same techniques as described above will be used for the sowing of the grassland, although mowing will be more frequent.

3.8. Urban Trees.

3.8.1. Extensive planting of approximately eighty-three standard and heavy standard trees will be carried out throughout the development. This will create an extensive

connective network throughout the site. Trees will be selected which maximise food and nectar sources for birds and invertebrates.

3.8.2. All heavy and extra heavy standard trees will be purchased in good condition and a substantial height with well-developed branching heads with a single, central leader and healthy, fibrous root system.

3.8.3. The trees will each be secured to a stake that shall not exceed one third of the height of the tree above ground and a cross bar and tie will be fitted.

3.8.4. Regular watering will commence during the early years of the trees development to ensure it survives to maturity.

3.9. Hedgerows.

3.9.1. Most of the hedgerows on site will be retained post development.

3.9.2. A variety of hedgerows will be planted across the site. These will include some 269m of new native beech hedgerows to act as wildlife corridors linking a variety of habitats and some ornamental evergreen flowering hedgerows which will also create corridors and additional habitats for birds and invertebrates.

3.9.3. Trenches will be prepared for the hedgerow species to be planted. The trenches will then be backfilled with a multipurpose topsoil and compost mix at a ratio of 3:1.

3.9.4. Upon completion of planting the hedge lines will be covered with forest mulch.

4. FAUNA ENHANCEMENTS.

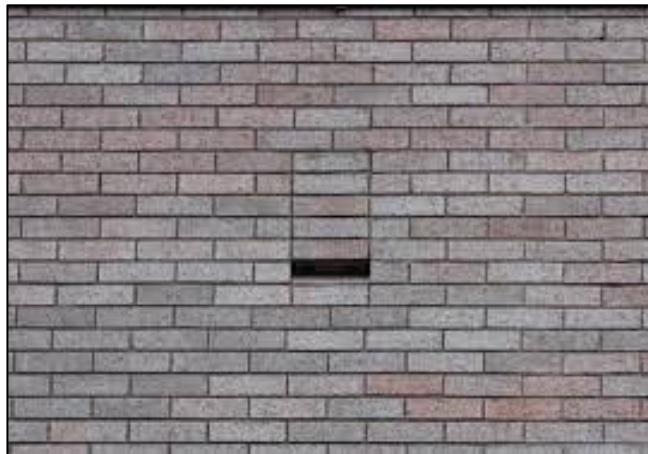
4.1. The landscaping for the site has been designed in such a way that it provides connectivity across the site for a variety of fauna species.

4.2. Connectivity is provided in the form of hedgerows, ornamental planting, grassland and trees that will mature and create connectivity across the site.

4.3. The proposed landscaping provides a mosaic of habitats to the north of the site, that in conjunction with the garden habitat and surrounding hedgerows will provide some value for invertebrates, birds, bats and other small mammals.

4.4. In addition to the planting, mitigation and enhancements for roosting bats and nesting birds will be provided as detailed below.

4.5. Seventeen bat boxes of a suitable integrated design will be included in seventeen of the buildings on the site. These will be built into houses around the edges of the development to allow easy access to the surrounding habitats. The exact location of these is shown in appendix II.



4.6. Seventeen bird boxes of a suitable integrated design will be included in seventeen of the buildings on the site. These will be a mixture of designs suitable for a variety of garden species and swifts. The exact location of these is shown in appendix II.



Prepared by:	
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Appendix II. BAT AND BIRD BOX LOCATIONS.



Site: Barrow Road / Bat & Bird Box

Date: 02.09.2023

Reference: 220776

Produced by: Mitchel Greenhalgh

