



FUTURESECOLOGY

Newett Homes

Land off Northorpe Lane, Mirfield

BIODIVERSITY IMPACT ASSESSMENT (BIA)

Report Reference Number: FE90/BIA02

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INTRODUCTION

- 1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Newett Homes. This summary report presents the results of the Biodiversity Impact Assessment (BIA) Calculations using the DEFRA Biodiversity Metric (BM) 3.0 Calculation Tool produced in respect of proposals for a residential development on land located off Northorpe Lane, Mirfield, Kirklees (central grid reference: SE 21490 21076).

DEVELOPMENT PROPOSALS

- 1.2 The site is the subject of an outline planning application for the development of 43 residential dwellings, with associated infrastructure and green space.

METHODOLOGY

- 1.3 A detailed habitat survey, previously undertaken by Brindle & Green in September 2019¹, and an updated walkover by ecologists from Futures Ecology Limited on 18th March 2021, were used to fully inform the Biodiversity Impact Assessment (BIA) using the DEFRA 3.0 metric. This information was used to:
- Adequately map the onsite habitats to inform the BIA; and
 - Undertake a habitat condition assessment as per those outlined within The Biodiversity Metric 3.0 Technical Supplement².
- 1.4 Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016³ comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and identifying the dominant plant species present within each habitat type, noting any features of interest. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.

BASELINE ECOLOGY

- 1.5 A Phase 1 Habitat plan is provided in Figure 1, which is an updated version of the Phase 1 Habitat Plan in the PEA, using updated GPS and aerial mapping. A summary of the habitats present on site is provided in Table 1 below including UK Hab equivalent habitats for the purpose of the BIA.

Table 1: Summary of Habitats

Phase 1 Habitat Type	UK Hab (using Biodiversity Metric 3.0 Table)	Brief Description
Hardstanding / Buildings	Urban – Developed land; sealed surface	Existing residential building, areas of hardstanding and empty water tanks at the north of site

¹ Preliminary Ecological Appraisal (PEA), Brindle & Green (September 2019)

² Stephen Panks A, et al. 2021. Biodiversity metric 3.0: Auditing and accounting for biodiversity –User Guide. Natural England.

³ JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7

Phase 1 Habitat Type	UK Hab (using Biodiversity Metric 3.0 Table)	Brief Description
Gardens	Urban – Vegetated garden	Gardens of residential property
Introduced Shrub	Urban – Introduced shrub	Flower beds containing ornamental shrubs
Amenity Grassland	Grassland – Modified grassland	Amenity grassland strip along Northorpe Lane, parcel to the north-west. Land outside applicant's control, owned by Kirklees Highways so not included in the net gain calculation
Tall ruderal vegetation	Sparsely vegetated land – Ruderal / Ephemeral	Tall ruderal vegetation associated with grassland fields. Condition Assessment - from the grassland assessment table the habitat is of poor condition due to the high occurrence of undesirable species.
Poor semi-improved (SI) grassland	Grassland -Other neutral grassland	Poor SI grassland, covers the majority of the site. Condition assessment- Poor- Fails criteria 1 (doesn't closely match UKHab specific grassland type), 2 (sward closely mown) and 3 (No bare ground).
Marshy grassland	Grassland -Other neutral grassland	An area of inundation vegetation, situated within the much larger poor semi-improved grassland. Other neutral grassland in poor condition. Condition assessment- Poor- Fails criteria 1 (doesn't closely match UKHab specific grassland type), 2 (sward closely mown) and 3 (No bare ground).
Continuous Scrub	Heathland and shrub –Bramble scrub	Patches of dense bramble scrub recorded across the application site. Condition assessment - fails criteria 2, 3, 5 and 6. The single woody species cover is greater than 75%. Single-age scrub present. Poor.
Scattered Scrub	Heathland and shrub – Bramble scrub	Scattered bramble scrub to the north of site. Condition assessment - fails criteria 2, 3, 5 and 6. The single woody species cover is greater than 75%. Single-age scrub present. Poor.
Dry ditch	River- Ditches	A dry ditch ran west to east in the north of the site. Condition assessment - Poor (water body dries out).
Native species hedgerow	Native hedgerow	Hedgerow H1. Habitat condition: Meets A1, A2, B1, B2, D1 and D2

Phase 1 Habitat Type	UK Hab (using Biodiversity Metric 3.0 Table)	Brief Description
		but fails both C1 and C2, so in moderate condition.

- 1.6 From the completed DEFRA Biodiversity Metric, the value of the existing site habitats are **4.49 Biodiversity Habitat Units, 0.1 Hedgerow Units and 0.2 River Units.**

BIODIVERSITY IMPACT ASSESSMENT

- 1.7 In accordance with National Planning Policy Framework (NPPF, 2021)⁴ and the Environment Bill (2021⁵) which was enacted in November 2021, the aim is to generate a minimum of 10% net gain in biodiversity units.
- 1.8 The masterplan has sought to retain existing boundary habitats (native species hedgerow H1) and buffer valuable offsite habitats (broadleaved woodland mapped within Kirklees Wildlife Habitat Network) with habitat creation. New habitats to be created include species-rich meadow grassland, mixed native scrub planting, native trees and a native species-rich hedgerow (H2) along the northern boundary. These new habitats will be managed for their value for wildlife.
- 1.9 Post development the habitat enhancements and creation, as outlined in this document with long-term management (for a minimum of 30 years), will achieve a net gain of +1.03 Hedgerow Units (total net change of +1025.7%). However, a net gain in Biodiversity Habitat Units will not be achieved with the current proposed development resulting in a total net unit change of -1.84 Habitat Units (total net change of -40.96%). In addition, the loss of the dry ditch within the site will lead to a total net unit change of -0.2 River Units (a total net change of -100%).
- 1.10 The Habitat Trading for the site is currently unacceptable given the assumed habitat creation and enhancements. This is due to the loss of the poor semi-improved grassland and bramble scrub, which were both in poor condition but are of medium distinctiveness within the metric. There are also insufficient positives in the high and medium distinctiveness bands to offset the deficit in the low distinctiveness band, therefore the loss of tall ruderal vegetation is not currently acceptable.
- 1.11 Figure 2 outlines the habitat areas post development across the site.

DISCUSSION & CONCLUSION

- 1.12 The above calculation does not account for the following additional enhancement measures that will be provided within the development as these cannot be quantified using the DEFRA BM calculator. The inclusion of the following biodiversity enhancements to what has already been outlined above would be considered a benefit to biodiversity.
- Provision of bat and bird boxes throughout the site;

⁴ Ministry of Housing, Communities and Local Government (July 2021). National Planning Policy Framework. London

⁵ <https://www.gov.uk/government/publications/environment-bill-2020> accessed 15.12.2021

- Installation of gaps for hedgehogs within boundary treatments;
- Creation of log piles for hedgehogs and other species;
- Amenity grassland lawn areas, within the public open space and within the gardens of the residential properties, can be seeded with a flowering lawn mix (such as Emorsgate EL1). The species diversity and flowers will improve the value of the habitat to invertebrates.

1.13 As the development proposals cannot deliver a 10% net gain on-site there is a requirement to secure a net gain via an alternative mechanism. This could include a combination of the following:

- Utilising off-site land under the control of the applicant to deliver the off-site requirement. The land should ideally be located in a strategic ecologically beneficial location.
- A Biodiversity Credit is calculated based on the Biodiversity Units required for the LPA or another third-party Habitat Bank (to be approved by the LPA) to take on responsibility to deliver the Net gain for biodiversity.⁶

⁶ <https://www.leeds.gov.uk/planning/conservation-protection-and-heritage/achieving-net-gain-in-biodiversity-guidance-for-developers>



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Key

- Site Boundary
- Developed land; sealed surface (buildings)
- Developed land; sealed surface (hardstanding)
- Vegetated garden
- Introduced shrub
- Modified grassland (amenity)
- SI Other neutral grassland (poor semi-improved)
- Ruderal/Ephemeral
- Bramble scrub (dense / continuous)
- Bramble scrub (scattered)
- Other neutral grassland (marshy)
- Native species hedgerow
- Dry ditch
- Broadleaved tree



Client: Newett Homes

Project: Land off Northorpe Lane, Mirfield, Kirklees

Title: Figure 1 - Baseline Habitat Plan

Plan Reference: F90_01

Project Reference: FE90

Report Reference: BIA02

Author: KH

Date: 16/12/2021

Scale: NTS@A3



C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE90_Land East of, 28, Northorpe Lane, Mirfield, WF14 0QN\QGIS - NEW\1 Plans\FE90 Biodiversity Net
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Key

- Site Boundary
- Developed land; sealed surface
- Vegetated garden
- Introduced shrub
- Modified grassland - amenity
- Other neutral grassland
- Mixed scrub
- Broadleaved woodland & trees - off-site
- Land outside applicant's ownership
- Retained hedge H1
- Native species-rich hedge H2
- Native species hedge- beech
- Introduced shrub hedge
- Urban Trees
 - Extra heavy standard (large)
 - Heavy standard (medium)
 - Standard (small)



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