



FUTURESECOLOGY

Newett Homes

Land off Northorpe Lane, Mirfield

BIODIVERSITY IMPACT ASSESSMENT (BIA)

Report Reference Number: FE90/BIA01

April 2021

Futures Ecology Ltd

Carrwood Park, Swillington Common Farm, Selby Rd, Leeds LS15 4LG

Company Number: 12125083

This report is the property of Futures Ecology Limited and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of Futures Ecology Limited.

This report may not be relied upon by any other party without the express written agreement of Futures Ecology Limited. The use of this report by unauthorised third parties is at their own risk and Futures Ecology Limited accepts no duty of care to any such third party.

Futures Ecology Limited assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others. Any recommendation, opinion or finding stated in this report is based on conditions as they existed at the time that Futures Ecology Limited undertook the work. Nothing in this report constitutes legal opinion.

REV	Issue Status	Author or Reviewer	Name & Qualifications	Position	Date
-	Draft 1	Author	K. Haymes BSc (Hons), ACIEEM	Senior Ecologist	13.04.21
		Reviewer	R.Hill-Harmsworth BSc (Hons), ACIEEM	Director	13.04.21

CONTENTS

1.0	EXECUTIVE SUMMARY	ERROR! BOOKMARK NOT DEFINED.
2.0	INTRODUCTION	2
3.0	METHODOLOGY	3
4.0	RESULTS	ERROR! BOOKMARK NOT DEFINED.
5.0	DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS .	ERROR! BOOKMARK NOT DEFINED.

TABLES

Table 1: Summary of Habitats

APPENDICES

Appendix A: FE90 BM 2.0 Calc Tool Beta Test – Dec 2019 Update

FIGURES

Figure 1: Phase 1 Habitat Plan – Baseline Habitats

Figure 2: Post Development Habitats

1.0 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) 2.0 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).
- 1.2 The report also details the additional ecological surveys planned to be undertaken during the 2021 survey season to inform the Ecological Impact Assessment (EcIA) required to discharge Condition 16 of the outline planning permission (Reference: 2019/92378).

DEVELOPMENT PROPOSALS

- 1.3 The site is the subject of an outline planning application for the development of 48 residential dwellings, with associated infrastructure and green space.

SURVEYS TO BE UNDERTAKEN IN 2021

- 1.4 Planning condition 16 of the outline planning permission (Reference: 2019/92378) requires the submission of an EcIA.
- 1.5 The Preliminary Ecological Appraisal (PEA), Brindle & Green (September 2019) recommended a number of further ecological surveys to be undertaken at the site to fully inform the EcIA report, these include:
- At least one bat emergence survey upon the low potential building located within the site (May- August 2021);
 - Monthly bat activity transects and static detector surveys (April to September 2021), in line with the habitats which have been assessed as providing moderate suitability; and
 - Reptile presence / absence surveys (seven visits in suitable weather conditions March – September 2021 with April, May and September being the optimum survey period).
- 1.6 These surveys will be undertaken in the appropriate survey season in 2021, with the results detailed in addendum reports, to be submitted for the Local Planning Authority's information. The reptile refugia were placed on site on 18th March 2021, with presence/likely absence surveys due to commence in April 2021.
- 1.7 Once all of the above listed surveys are complete an EcIA report will be produced and submitted.

2.0 METHODOLOGY

- 2.1 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 2.0 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 2.0 Technical Supplement².
- 2.2 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.

3.0 BASELINE ECOLOGY

- 3.1 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 2.0 Calculation Table G-9)	Brief Description
Hardstanding / Buildings	Urban – Developed land; sealed surface	Existing residential building, areas of hardstanding and empty water tanks at the north of site
Gardens	Urban – Vegetated garden	Gardens of residential property
Introduced Shrub	Urban – Introduced shrub	Flower beds containing ornamental shrubs
Amenity Grassland	Urban – Amenity 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
Poor semi-improved (SI) grassland	Grassland -Modified grassland	Poor SI grassland, covers the majority of the site

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

² I. Crosher et al, 2019. The Biodiversity Metric 2.0: Auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019). 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 2.0 Calculation Table G-9)	Brief Description
Marshy grassland	Grassland -Modified grassland	An area of inundation vegetation, situated within the much larger poor semi-improved grassland.
Continuous Scrub	Heathland and shrub –Bramble scrub	Patches of dense bramble scrub recorded across the application site
Scattered Scrub	Heathland and shrub – Bramble scrub	Scattered bramble scrub to the north of site
Dry ditch	Lake- Ditches	A dry ditch ran west to east in the north of the site.
Native species hedgerow	Native hedgerow	Hedgerow H1

- 3.2 From the completed DEFRA Biodiversity Metric, the value of the existing site habitats are **4.82 Biodiversity Habitat Units** and **0.1 Hedgerow Units**.

4.0 **BIODIVERSITY IMPACT ASSESSMENT**

- 4.1 In accordance with National Planning Policy Framework (NPPF, 2019)⁴ the aim is to generate a minimum of 10% gain in biodiversity units or whatever becomes a requirement of the emerging Environment Act.
- 4.2 The masterplan has sought to retain existing boundary habitats (native species hedgerow). Additionally, post development existing habitats will be enhanced (species rich meadow grassland, native tree and scrub planting) and new habitats will be created (native species hedgerow planting), which will be managed for their value for wildlife.
- 4.3 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 0.78 Hedgerow Units (total net change of 679.86%). 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 -3.02 Habitat Units.
- 4.4 The Habitat Trading for the site is currently unacceptable given the assumed habitat creation and enhancements. This is due to the loss of the dry ditch and bramble scrub, which were both in poor condition but are of medium distinctiveness within the metric. There is also insufficient positives in the high and medium distinctiveness bands to offset the deficit in the low distinctiveness band, therefore the loss of semi-improved grassland and tall ruderal vegetation is not currently acceptable.
- 4.5 Figure 2 outlines the habitat areas post development across the site.

⁴https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

5.0 **DISCUSSION & CONCLUSION**

5.1 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;
- 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.

5.2 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.⁵

⁵ <https://www.leeds.gov.uk/planning/conservation-protection-and-heritage/achieving-net-gain-in-biodiversity-guidance-for-developers>



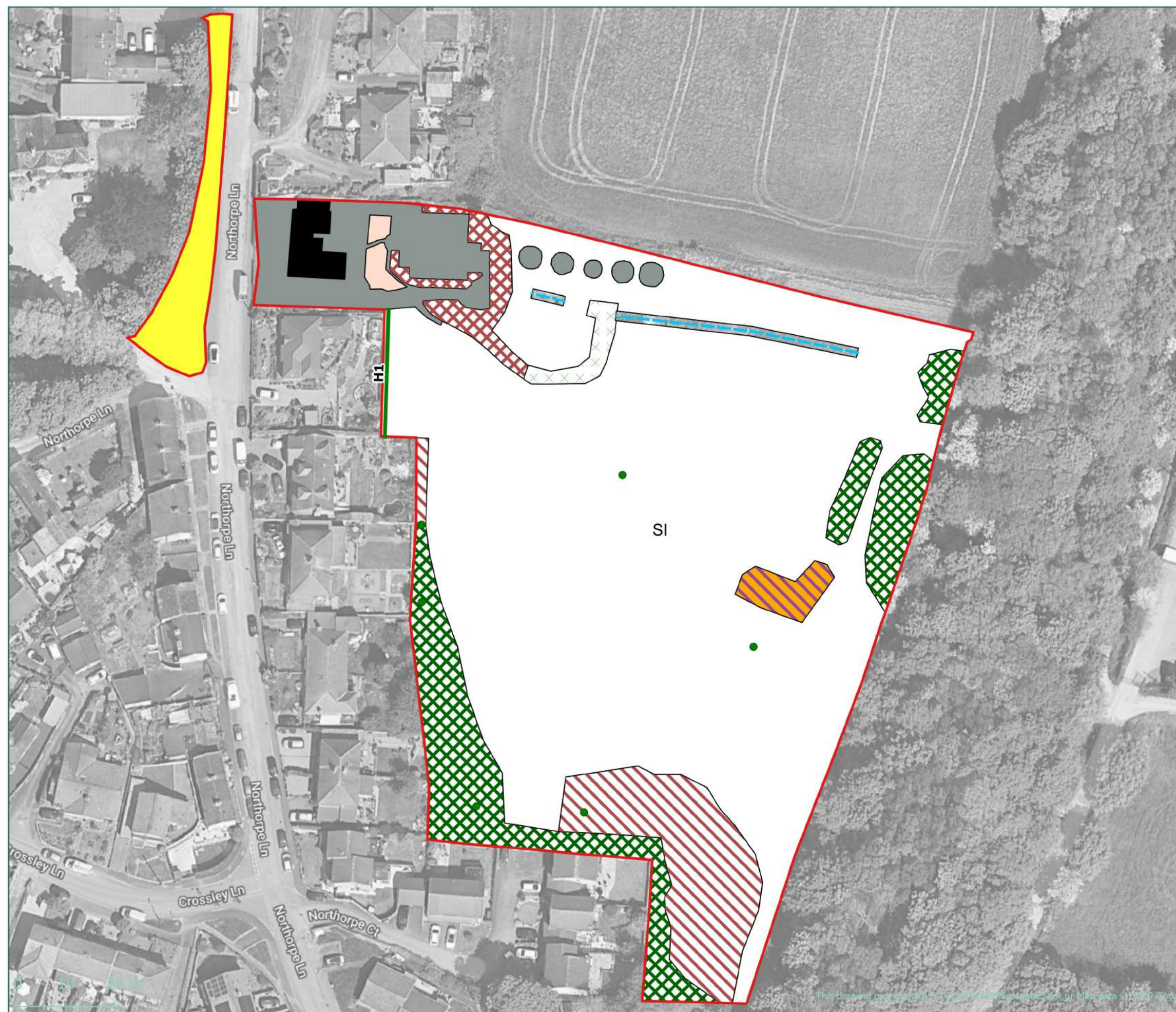
FUTURES ECOLOGY

Leigh House, 28-32 St Paul's Street, Leeds, LS1 2JT

Telephone: 07731993413 or 07730774476

Key

- Site Boundary
- Buildings
- Built Environment: Hardstanding
- Built Environment: Gardens (lawn and planting)
- Cultivated/disturbed land - amenity grassland
- Introduced shrub
- Marshy grassland
- Other tall herb and fern - ruderal
- SI Poor semi-improved grassland
- Scrub - dense/continuous
- Scrub - scattered
- Intact hedge - species-poor
- Dry ditch
- Broadleaved tree



Client: Newett Homes
Project: Land off Northorpe Lane, Mirfield, Kirklees
Title: Figure 1 - Phase 1 Habitat Plan (Baseline Habitats)

Plan Reference: FE90_01
Project Reference: FE90
Report Reference: BIA01

Author: KEH
Date: 14/4/2021
Scale: NTS@A3

C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE90_Land East of, 28, Northorpe Lane, Mirfield, WF14 0QN\QGIS 3.4\Plans\Biodiversity
Copyright © Futures Ecology
No dimensions are to be scaled from this drawing. All dimensions must be checked on site. Any measurements are for indicative purposes.



FUTURES^{ECOLOGY}

Leigh House, 28-32 St Paul's Street, Leeds, LS1 2JT

Telephone: 07731993413 or 07730774476

Key

-  Site Boundary
-  Urban Sealed Surface - Buildings & Hardstanding
-  Urban - Vegetated Garden
-  Meadow Grassland
-  Amenity Grassland
-  Native Mixed Scrub
-  Ornamental Shrub
-  Land outside applicant ownership
-  Mixed native hedgerow
-  Beech hedge
-  Street tree - large
-  Street tree - medium
-  Street tree - small



Client: Newett Homes

Project: Land off Northorpe Lane, Mirfield, Kirklees

Title: Figure 2 - Post Development Habitats

Plan Reference: FE90_01

Project Reference: FE90

Report Reference: BIA01

Author: KEH

Date: 14/4/2021

Scale: NTS@A3



C:\Users\kate.haymes\OneDrive - Futures Ecology Ltd\Projects\FE90_Land East of, 28, Northorpe Lane, Mirfield, WF14 0QN\QGIS 3.4\Plans\Biodiversity

Copyright © Futures Ecology

No dimensions are to be scaled from this drawing. All dimensions must be checked on site. Any measurements are for indicative purposes.