



FUTURESECOLOGY

Basil Houldsworth & Sons Ltd

Newall Hall, Otley

Biodiversity Impact Assessment

Report Reference Number: FE54/BIA01

December 2022

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Basil Houldsworth & Sons Ltd. This summary report presents the results of the Biodiversity Impact Assessment (BIA) calculations using the Natural England Biodiversity Metric 3.1 Calculation Tool produced in respect of proposals for development of land at Newall Hall, Otley, West Yorkshire, (central grid reference: SE 20024 46456).

SITE LOCATION AND CONTEXT

- 1.2 The application Site was c. 0.335ha in extent and comprising a building (Newall Hall) to the west of the Site, with amenity lawns and urban trees to the front and sides of the building. Bramble scrub and improved grassland was present to the rear with ruderal vegetation on the northern and southern boundaries. The boundary is fairly closed with walls to the west and south-west, housing boundaries to the north, a perimeter block of trees to the east, and a retaining wall with scattered semi-mature and mature trees to the south.
- 1.3 The Site was situated adjacent Newall Carr Road, Otley. The landscape immediately surrounding the Site is comprised amenity grasslands (playing fields), urban residential development (house and gardens), and lines/groups of urban trees. Approximately 500m south of the Site is the River Wharfe and an extensive body of water 210m south west.
- 1.4 The amenity grassland area containing urban trees in the west of the Site falls within the Extended Leeds Habitat Network (ELHN) under woodland habitats, and therefore these habitats are considered 'formally identified in local strategy' under the strategic significance column of the BM Calculation Tool. The treeline (T16) and section of improved grassland and bramble scrub along the eastern boundary is also included in the ELHN. Ecologically valuable pre-development and post-development habitats have also been considered as 'location ecologically desirable but not in local strategy' under the strategic significance column of the BM Calculation Tool to reflect their proximity to the ELHN.

DEVELOPMENT PROPOSALS

- 1.5 The Site proposals are for the demolition of the existing building (Newall Hall), clearance of vegetation and the construction of eight residential units with associated gardens and infrastructure.

2.0 **METHODOLOGY**

FIELD SURVEY – HABITATS

Habitat Assessment & Biodiversity Net Gain

- 2.1 An initial Phase 1 Habitat Survey of the application Site was completed on the 7th July 2020 (Preliminary Ecological Appraisal - Futures Ecology, November 2020). An updated condition assessment survey was completed on the 29th September 2022 to assess the habitats present on site and to fully inform the Biodiversity Impact Assessment (BIA) using the Natural England Biodiversity Metric 3.1. This information was used to adequately map the onsite habitats to inform the BIA.

Phase 1 Survey

- 2.2 Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016¹ comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and other features of interest.

UK Hab

- 2.3 A summary of the habitats present on site is provided within the report including UK Hab equivalent habitats for the purpose of the Biodiversity Impact Assessment (BIA).

BIODIVERSITY IMPACT ASSESSMENT (BIA)






- 2.4 To quantify deliverable net gain for the application, the baseline value of the habitats within the site have been calculated utilising the Natural England Biodiversity Metric 3.1.





3.0 **BASELINE ECOLOGY**


- 3.1 The baseline habitats are provided on Figure 1. A summary of the habitats present is provided in Table 1 below, including UK Hab equivalent habitats for the purpose of the BIA.

¹ JNCC (2016) *Handbook for Phase1 Habitat Survey – a technique for environmental audit*. ISBN 0 86139 636 7

Table 1: Summary of Habitats

Phase 1 Habitat Type	UK Hab (using Table G9 Biodiversity Metric 3.1)	Photographs	Brief Description and Conditional Assessment
Buildings	Urban: Developed land; sealed surface		Newall Hall. Condition Assessment: N/A
Built Environment: Buildings / hardstanding	Urban: Developed land; sealed surface		Access footpaths to Newall Hall. Condition Assessment: N/A
Cultivated / disturbed land - amenity grassland	Grassland: Modified grassland		Amenity grassland containing multiple trees surrounding Newall Hall. Falls within the Extended Leeds Habitat Network (ELHN). Condition Assessment: Poor Passes: 3, 4, 5, 6, and 7. Fails: 1 and 2.
Improved grassland	Grassland: Modified grassland		Grassland mown this year but arisings still present. Species diversity is low with only a small number of grass species. Condition Assessment: Poor Passes: 4, 5, 6, and 7. Fails: 1, 2, and 3.
Other tall herb and fern - ruderal	Sparsely vegetated land: Ruderal/Ephemeral		Small narrow stands of ruderal vegetation at site peripheries. Condition Assessment: Poor

Phase 1 Habitat Type	UK Hab (using Table G9 Biodiversity Metric 3.1)	Photographs	Brief Description and Conditional Assessment
			<p>Passes: 3. Fails: 1, 2, and 4a.</p>
<p>Scrub – dense / continuous</p>	<p>Heathland and shrub: Mixed scrub</p>		<p>A small section of elm and sycamore scrub along north boundary. Falls within the Extended Leeds Habitat Network (ELHN).</p> <p>Condition Assessment: Poor</p> <p>Passes: 3. Fails: 1, 2, 4, and 5.</p>
<p>Scrub – dense / continuous</p>	<p>Heathland and shrub: Bramble scrub</p>		<p>Large dense areas of bramble scrub scattered throughout the site with the patches along the peripheries more dense / mature. Areas of scrub within the centre of site had recently been cut but are beginning to regrow. A small section falls within the Extended Leeds Habitat Network (ELHN).</p> <p>Condition Assessment: N/A or Poor</p>
<p>Hedges: Introduced shrub</p>	<p>Hedge: Hedge Ornamental Non Native</p>		<p>Leyland Cypress hedge along site boundary.</p> <p>Condition Assessment: N/A</p>
<p>Scattered trees</p>	<p>Urban: Urban trees</p>		<p>Several trees scattered around the site along or adjacent the site boundary. The trees are semi-mature / mature in except T1 which is a dead elm tree. Trees T1 – T3, T23, and T25 – T29 all fall within</p>

Phase 1 Habitat Type	UK Hab (using Table G9 Biodiversity Metric 3.1)	Photographs	Brief Description and Conditional Assessment
			<p>the Extended Leeds Habitat Network (ELHN).</p> <p>Condition Assessment: Moderate</p> <p>Passes: 3, 4, 5, and 6. Fails: 1, and 2.</p>
Perimeter block of trees	Line of trees		<p>Five sycamores (offsite) overhang the site on the eastern boundary but have an understory containing hawthorn and the occasional sycamore and cherry along the site boundary. The understory habitat is considered a continuation of the improved grassland.</p> <p>Condition Assessment: Good</p> <p>Passes: 2, 3, 4, 5. Fails: 1.</p>

3.2 From the completed Biodiversity Metric 3.1, the value of the existing on-site habitats is **4.38 Biodiversity Habitat Units and 0.12 Hedgerow Units** (see Appendix A).

4.0 **BIODIVERSITY IMPACT ASSESSMENT**

4.1 In accordance with NPPF (2021²) and The Environment Act (2021³), the aim is to generate a 10% net gain for biodiversity.

4.2 Figure 2 outlines the habitat areas post development across the site.

4.3 The scheme has sought to retain habitats of ecological importance (treeline eastern boundary) which is mapped within the ELHN, and further habitat enhancements (wildflower meadow, tree planting and mixed scrub) will be provided. Several trees within the ELHN are to be removed to facilitate the development (T1, T2, T3, T28, T29). These will be replaced with newly planted native trees throughout the scheme. A total of 15 new trees are proposed on site as part of the new green infrastructure.

4.4 Post development, the on-site habitat creation (Figure 2) will achieve **4.92 Biodiversity Habitat Units and 0.46 Hedgerow Units**, which is a **total net unit change of +0.54**

² Ministry of Housing, Communities and Local Government (July 2021). National Planning Policy Framework. London

³ <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

Biodiversity Habitat Units and +0.34 Hedgerow Units. This equates to a **+12.33% net gain in Biodiversity Habitat Units** and a **+288.26% net gain in Hedgerow Units.**

- 4.5 The proposals also satisfy the habitat trading rules.
- 4.6 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 Natural England BM calculator. The inclusion of the following biodiversity enhancements with what has already been outlined above would be considered a significant benefit to biodiversity.
- Provision of bat and bird boxes throughout the site; and
 - Installation of gaps for hedgehogs within boundary treatments.

APPENDIX A: NATURAL ENGLAND BIODIVERSITY METRIC 3.1



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Key

- Site Boundary
- Extended Leeds Habitat Network (ELHN)
- Pre-development Habitats**
- Buildings [Urban: Developed land; sealed surface]
- Hardstanding [Urban: Developed land; sealed surface]
- Cultivated/disturbed land - Amenity grassland [Grassland: Modified grassland]
- Improved grassland [Grassland: Modified grassland]
- Other tall herb and fern - ruderal [Sparsley vegetated land: Ruderal/Ephemeral]
- Scrub - dense/continuous [Heathland and shrub: Mixed scrub]
- Scrub - dense/continuous [Heathland and shrub: Bramble scrub]
- Hedges: Introduced shrub [Hedge Ornamental Non Native]
- Broadleaved trees [Line of Trees]
- Wall
- Dry stone wall
- Fence
- Small urban tree
- Medium urban tree
- Dead tree



Client: Basil Houldsworth & Sons Ltd
 Project: Newall Hall, Otley
 Title: Figure 1 - Baseline Habitat Plan

Plan Reference: FE54_01
 Project Reference: FE54
 Report Reference: BIA01_REV A

Author: JH
 Date: 8/12/2022
 Scale: 1:500

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Key

- Site Boundary
- Extended Leeds Habitat Network (ELHN)

Post-development Habitats

- Buildings [Urban: Developed land; sealed surface]
- Hardstanding [Urban: Developed land; sealed surface]
- Gardens (lawn and planting) [Urban: vegetated garden]
- Neutral grassland - semi-improved [Grassland: Other neutral grassland]
- Scrub - dense/continuous [Heathland and shrub: Mixed scrub]
- Intact hedge - species-poor [Native Hedgerow]
- Hedges: Introduced shrub [Hedge Ornamental Non Native]
- Broadleaved trees [Line of Trees]
- Medium urban tree
- Retained tree



Client: Basil Houldsworth & Sons Ltd
 Project: Newall Hall, Otley
 Title: Figure 2 - Proposed Habitat Plan

Plan Reference: FE54_02
 Project Reference: FE54
 Report Reference: BIA01_REV A

Author: JH
 Date: 9/12/2022
 Scale: 1:500

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