

41 Quarmby Road,
Longwood,
Huddersfield,
HD3 4EA.

Preliminary Ecological Appraisal and BNG Initial Assessment

October 2024

Report reference	2018
Revision	1
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Issue date	Rev 1. 29 th October 2024

This report is valid for a period of 12 months from the issue date.

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1 Introduction

- 1.1.1.1 This report presents the results of a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) Initial Assessment at 41 Quarmby Road, Longwood, Huddersfield, HD3 4EA. The study area (see Figure 1) extends to approximately 0.29 hectares and is centred at approximate grid reference SE 1175 1644.
- 1.1.1.2 The aims of this assessment were to identify the habitat types present on the site, to assess the potential for protected / notable species to occur and to make any recommendations for further surveys or assessments which may be required in relation to proposed development at the site. This document also presents a Biodiversity Net Gain (BNG) Initial Assessment information (including Habitat Condition Assessments for all baseline habitats at the site) and should be read in conjunction with the habitat map at Appendix 3.
- 1.1.1.3 On 14th October 2024, a PEA survey was conducted by Morgane Accault ACIEEM and Maxwell Caulton Field Assistant.

Figure 1. Site Location (aerial imagery dated 2021)



Figure 2. Site Location



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2 Methodology

2.1 Desk Study

- 2.1.1.1 West Yorkshire Ecological Service (WYES) was contacted, in September 2024, for searches of protected sites and records of protected species within a 2 km radius of the site.
- 2.1.1.2 In addition, the following data sources were searched for statutorily protected sites and additional ecological data of relevance to the assessment such as previously granted European Protected Species Mitigation (EPSM) licences and off-site waterbodies:
- Multi Agency Geographic Information for the Countryside (MAGIC).
 - Ordnance Survey 1:10,000 mapping.
 - Aerial imagery (dated 2023 and 2024).

2.2 Personnel

- 2.2.1.1 The Preliminary Ecological Appraisal survey and Bat Roost Assessment were undertaken by Morgane Accault ACIEEM^{1 2} and Maxwell Caulton.

2.3 Preliminary Ecological Appraisal Survey

- 2.3.1.1 A Preliminary Ecological Appraisal survey of the site was conducted on 14th October 2024 in accordance with the standard survey methodology³.
- 2.3.1.2 The habitats on the site were assessed and categorised in order to provide baseline information and subsequent interpretation of the ecological value of the site. In addition, the site was searched for evidence of protected / notable species and assessed in terms of its potential to support protected / notable species such as Badger, Great Crested Newt, reptiles and bat species.

2.4 Habitat Condition Assessment and Biodiversity Net Gain (BNG) Calculations

- 2.4.1.1 A Biodiversity Net Gain (BNG) assessment has been undertaken in accordance with the current guidelines⁴ using the following drawing:
- Northern Design Partnership. Proposed Development. Land to Rear of 41 Quarmby Road, Quarmby, Huddersfield, HD3 4EA for Mrs J. Kaye Grimmelikhuijsen. Drawing Site Layout As Proposed Option 2.
- 2.4.1.2 The habitats within the site have been identified using the standard UK Hab methodology⁵ using a combination of the information gathered during the field survey on 14th October 2024 and analysis of aerial imagery. Habitat Condition Assessments have been undertaken in accordance with the current methodology⁶.

2.5 Survey Comments

- 2.5.1.1 The survey was undertaken outside the optimal season for assessing habitat types and for undertaking Habitat Condition Assessments (May to September). During the survey it was possible to identify broad habitat types and there were no access restrictions. In accordance with the current

¹ Natural England Class Licence Registration No. 2022-11070-CL17-BAT Level 1 (Bats).

² Natural England Class Licence Registration No. 2023-11453-CL08-GCN (Great Crested Newts).

³ Chartered Institute of Ecology and Environmental Management (CIEEM). (2017). Guidelines for Preliminary Ecological Appraisal, Second Edition. December 2017. CIEEM, Winchester.

⁴ <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

⁵ UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

⁶ <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

guidelines, the BNG assessment has been informed by a combination of information gathered during the field survey and also information gathered from analysis of aerial imagery.

- 2.5.1.2 The survey was undertaken outside the optimal season for recording evidence of invasive weeds Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended), such as Himalayan Balsam.

3 Results

3.1 Desk Study

3.1.1.1 Information provided by WYES can be reproduced on request.

3.1.2 Internationally / Nationally Protected Sites

3.1.2.1 WYES and a search on the MAGIC website confirmed the absence of internationally/nationally designated sites within 2 km of the site.

3.1.3 Locally Designated Sites

3.1.3.1 WYES identified two Local Wildlife Sites (LWS) and one Local Nature Reserve (LNR) within 2 km of the site:

- Huddersfield Narrow Canal LWS located approximately 455 metres south from the site at its nearest point.
- Gledholt Woods LWS and LNR located approximately 1.1 km east from the site at its nearest point.

3.1.4 Other Non-Statutory Designations

3.1.4.1 WYES and a search on MAGIC website did not identify any areas of Priority Habitat 2 km of the site.

3.1.5 Species Records

Invertebrates

3.1.5.1 WYES provided six records of Beetles and one record of Moth within 2 km of the site, but none within 500 metres of the site.

3.1.5.2 WYES provided six records of White-clawed Crayfish *Austropotamobius pallipes* within 2 km of the site, all approximately 1.57 km east of the site, dated between 1990 and 1995.

Amphibians

3.1.5.3 WYES provided two record of Palmate Newt *Lissotriton helveticus*, and four records of Common Frog *Rana temporaria* within 2 km of the site, but none within 1 km of the site.

3.1.5.4 WYES provided no records of Great Crested Newt *Triturus cristatus* within 2 km of the site.

Reptiles

3.1.5.5 WYES provided one record of Grass Snake *Natrix helvetica* within 2 km of the site, approximately 1.4 km north-east of the site.

Birds

3.1.5.6 WYES provided one record of bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) within 2 km of the site; a record of Kingfisher *Alcedo atthis* approximately 922 metres south-east from the site.

Water Vole

3.1.5.7 WYES provided no records of Water Vole *Arvicola amphibius* within 2 km of the site.

Otter

3.1.5.8 WYES provided no records of Otter *Lutra lutra* within 2 km of the site.

Hedgehog

- 3.1.5.9 WYES provided no records of Hedgehog *Erinaceus europaeus* within 2 km of the site.

Brown Hare

- 3.1.5.10 WYES provided one record of Brown Hare *Lepus europaeus* within 2 km of the site, but none within 1 km of the site.

Bats

- 3.1.5.11 WYES provided six records of the following bat species within 2 km of the site: Common Pipistrelle *Pipistrellus pipistrellus*; Soprano Pipistrelle *Pipistrellus pygmaeus*, Pipistrelle bat species *Pipistrellus*, Brown Long-eared Bat *Plecotus auritus*, Noctule *Nyctalus noctule*, Lesser Noctule *Nyctalus leisleri*, Daubenton's Bat *Myotis daubentonii*, Myotis bat species *Myotis* and Bats *Vespertilionidae*. 14 of these records are located within 1 km of the site:

- One record of Common Pipistrelle at Quarmby Road, Quarmby, Huddersfield (grid reference SE1175116509) approximately 69 metres north of the site, dated 22/06/2003 and 01/05/2011.
- One record of Pipistrelle bat species maternity roost at Woodlea Avenue, Quarmby, Kirklees (grid reference SE1212116789) approximately 509 metres north-east of the site, dated 29/07/2019.
- One record of Common Pipistrelle at Reinwood Road, Quarmby, Kirklees (grid reference SE1202616959) approximately 587 metres north-east of the site, dated 28/05/2009.
- One record of Common Pipistrelle at Milltown Brewery, Scar Lane, Quarmby, Kirklees (grid reference SE1126516083) approximately 601 metres south-west of the site, dated 20/08/2009.
- One record of Daubenton's Bat, two records of Common Pipistrelle and one record of Soprano Pipistrelle at Factory Lane, Crosland Hill, Milnsbridge, Kirklees (grid reference SE1200215836) approximately 654 metres south of the site, dated 24/06/2019 and 29/06/2019.
- One record of Pipistrelle bat species inside building at Reinwood Community Junior School, Burfitts Road, Oakes, Huddersfield (grid reference SE1185917097) approximately 666 metres north of the site, dated 07/09/2006.
- One record of Myotis bat species and one record of Common Pipistrelle at Sterling Silver Rings, Burdett Court, Crosland Hill (grid reference SE1214715833) approximately 724 metres south-east of the site, dated 03/05/2023.
- One record of Pipistrelle bat species roost at South View, Gledholt, Paddock, Milnsbridge, Kirklees (grid reference SE1254116297) approximately 802 metres east of the site, dated 07/06/2004.
- One record of Bat roost at South Street, Paddock, Milnsbridge, Kirklees (grid reference SE1254116292) approximately 803 metres east of the site, dated 2004.
- One record of Bat possible roost at Rose Avenue, Marsh, Milnsbridge, Kirklees (grid reference SE1244916896) approximately 833 metres north-east of the site, dated 10/07/2004.

- 3.1.5.12 A search on MAGIC identified three granted EPSM bat licences within 2 km of the site:

- EPSM licence for Common Pipistrelle (ref. EPSM2009-1162) approximately 1.2 km north of the site; Licence Start Date: 17/09/2009; Licence End Date: 17/09/2011.
- EPSM licence for Common Pipistrelle (ref. EPSM2012-5292) approximately 1.2 km north of the site; Licence Start Date: 02/01/2013; Licence End Date: 01/12/2014.
- EPSM licence for Common Pipistrelle (ref. 2014-1010-EPS-MIT) approximately 1.3 km south-east of the site; Licence Start Date: 08/04/2014; Licence End Date: 30/09/2015.

Badger

- 3.1.5.13 WYES did not provide any Badger *Meles meles* records within 500 metres of the site. WYES confirmed that the site falls 'within the area of increased probability of Badger activity'.

3.2 Preliminary Ecological Field Survey

- 3.2.1.1 Please also refer to Figure 2 and photos included in Appendix 2. The site extends to approximately 0.29 hectares. The site is approximately 167 metres above sea level on the north-east and gently slopes to approximately 160 metres above sea level on the south-west. The site is located approximately 2.4 km west of Huddersfield town centre.
- 3.2.1.2 The site is bordered to the east, south and west by dwellings with private gardens and roads beyond; to the north by a road dwellings with private gardens beyond.

3.2.2 Habitats and Habitat Condition Assessments

- 3.2.2.1 The Baseline Habitat Types for on-site areas are shown in Appendix 3. Target Notes are shown in Appendix 3 and in Table 1 below.

Table 1. Target Notes (see Appendix 3)

Target Note	Description
TN1	Montbretia <i>Crocasmia x crocosmifolia</i>

Urban - Developed Land, Sealed Surface (0.0415 ha)

DEFRA Condition Assessment: No assessment required – automatically assigned score of 0.

- 3.2.2.2 The sealed surfaces at the site are largely devoid of vegetation except for sparse vegetation including Creeping Buttercup *Ranunculus repens* and Dandelion *Taraxacum officinale* agg.

Introduced Shrub – Condition N/A (0.0250 ha)

DEFRA Condition Assessment: No assessment required – automatically assigned score of 1

- 3.2.2.3 Areas of Introduced Shrub at the site comprising of Common Snowberry *Symphoricarpos albus*, Cotoneaster Bearberry *Cotoneaster dammeri*, Boxleaf Honeysuckle *Lonicera pileata*, African Flag *Chasmanthe floribunda*, Fuchsia *Fuchsia* sp., Laurel *Laurus nobilis*, Barberry *Berberis* sp., Weigela *Weigela* sp. and Sweet Mock-orange *Philadelphus coronarius*, mixed with scattered native species including Holly *Ilex aquifolium*, Wild Cherry *Prunus avium*, Foxglove *Digitalis purpurea*, Bramble *Rubus fruticosus*, Nettle *Urtica dioica* and Rosebay Willowherb *Chamaenerion angustifolium*.

Modified Grassland (0.0707 ha)

DEFRA Condition Assessment: POOR.

- 3.2.2.4 Modified Grassland at the site comprising of Yorkshire Fog *Holcus lanatus*, Red Fescue *Festuca rubra*, Rosebay Willowherb *Chamaenerion angustifolium*, Dandelion, Broad-leaved Dock *Rumex obtusifolius*, Creeping Buttercup, Forget-Me-Not *Myosotis sylvatica*, Geranium *Geranium* sp. and Wood Avens *Geum urbanum*.

Table 1. Condition Assessment: Poor (meets 3 of 7 criteria):

Condition Assessment Criteria – Grassland habitat type (Low Distinctiveness)		Meets criteria?
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	No

	Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² , please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	No
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	No
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	Yes

Mixed Scrub (0.1504 ha)

DEFRA Condition Assessment: POOR.

- 3.2.2.5 Mixed Scrub at the site comprising of Bramble, Nettle, Creeping Buttercup, Dandelion, Broad-leaved Dock, Rosebay Willowherb, Wild Cherry, Wood Aven, Rowan *Sorbus aucuparia*, Common Ivy *Hedera helix*, Goat Willow *Salix caprea*, Hawthorn *Crataegus monogyna* and Sycamore *Acer pseudoplatanus*.

Table 2. Condition Assessment: Poor (meets 2 of 5 criteria):

Condition Assessment Criteria – SCRUB habitat type		Meets criteria?
A	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species ¹ , with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Yes
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	No
C	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Yes
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No

E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No
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Native Hedgerow with Trees

DEFRA Condition Assessment: POOR.

- 3.2.2.6 Vegetation along the south-east, south-west and north-west boundaries of the site has been left unmanaged and is overgrown. However, based on aerial imagery and observations at the site during the survey on 14th October 2024, three Native Hedgerows with Trees have been identified.
- 3.2.2.7 The Native Hedgerow with Trees H1 along the south-east boundary is approximately 28 metres long and comprises of Goat Willow, Ash *Fraxinus excelsior*, Wild Cherry and hybrid Black Poplar.
- 3.2.2.8 The Native Hedgerow with Trees H2 along the south-west boundary is approximately 29 metres long and comprises of Hawthorn, Holly, Sycamore and Elder *Sambucus nigra*.
- 3.2.2.9 The Native Hedgerow with Trees H3 along the north-west boundary is approximately 34 metres long and comprises of Sycamore, Elm *Ulmus procera*, Laburnum *Laburnum anagyroides*, Privet *Ligustrum* sp. and Wild Cherry.

Table 3. Condition Assessment: Poor (fails more than 5 attributes and fails both attributes in more than one functional group):

Condition Assessment Criteria – HEDGEROW habitat type			Meets criteria?
A1.	Height	>1.5 m average along length	Yes
A2.	Width	>1.5 m average along length	Yes
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	No
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	Yes
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	No
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	No
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species.	Yes
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	No
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	No
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	No

Individual Tree; Urban Tree

DEFRA Condition Assessment: MODERATE.

3.2.2.10 One native Wild Cherry individual tree, medium size, is present at the site.

Table 4. Condition Assessment: Moderate (meets 4 of 6 criteria):

Condition Assessment Criteria – INDIVIDUAL TREES habitat type		Meets criteria?
A	The tree is a native species (or more than 70% within the block are native species).	Yes
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes
C	The tree is mature (or more than 50% within the block are mature).	Yes
D	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	No
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes

Invasive Weeds

3.2.2.11 One invasive weed species (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 as amended) has been recorded at the site (see Baseline Habitat Map at Appendix 3): a small patch of *Montbretia Crocosmia x crocosmifolia*. Please note that the survey was undertaken at a suboptimal time of year and it is possible that additional non-native invasive weeds may be observable at other times of the year.

3.2.3 Birds

3.2.3.1 No birds were observed at the site during the survey on 14th October 2024. A limited range of common birds could potentially nest at the site, e.g. on the roof of the buildings and in overgrown vegetation and trees at the site.

3.2.4 Bats

3.2.4.1 No evidence of bat roosts has been identified at the site.

3.2.4.2 The two buildings present a few potential bat roost features where roof tiles and lead flashing are raised and behind the eaves, and gaps in the external masonry. Light and noise disturbance levels appear to be relatively high for the eastern-most building, and moderate for the western-most building.

3.2.4.3 The eastern-most building was assessed as having low bat roost potential and the western-most building as having moderate bat roost potential.

3.2.4.4 All trees at the site were assessed as having zero or negligible bat roost potential due to the absence of suitable potential bat roost features.

3.2.4.5 In terms of foraging and commuting habitats, the habitats at the site are assessed as providing generally poor quality habitat for bats. The immediate environs of the site are dominated by hard

standing, intensively managed grounds and buildings and these areas are assessed as providing poor quality habitats.

3.2.5 *Amphibians*

3.2.5.1 WYES provided two record of Palmate Newt *Lissotriton helveticus*, and four records of Common Frog *Rana temporaria* within 2 km of the site, but none within 1 km of the site.

3.2.5.2 WYES provided no records of Great Crested Newt *Triturus cristatus* within 2 km of the site

3.2.5.3 Two potentially suitable breeding waterbodies for Great Crested Newt have been identified within 500 metres of the site:

- A pond located approximately 295 metres west of the site at its nearest point.
- River Colne located approximately 440 metres south of the site at its nearest point.

3.2.5.4 Based on the distance between the site and both waterbodies, and the presence of barriers to dispersal (such as roads, railways and dwellings) between the site and the waterbodies, it is considered very unlikely that Great Crested Newts will occur at the site.

3.2.6 *Water Vole and Otter*

3.2.6.1 No evidence of Water Vole or Otter was identified during the survey. No suitable habitats for these species have been identified in close proximity to the site and is considered very unlikely that Otter or Water Vole will occur at the site.

3.2.7 *Reptiles*

3.2.7.1 Based on the nature of the habitats at the site and the lack of previous reptile records within 1 km of the site, it is considered very unlikely that reptiles will occur at the site.

3.2.8 *Badger and Other Fauna*

3.2.8.1 No evidence of Badger was observed at the site. Based on the current nature of the habitats within and adjacent to the site, there is low potential for Hedgehog to occur within the site.

4 Conclusions and Recommendations

4.1 Protected Sites

- 4.1.1.1 WYES and a search on the MAGIC website confirmed the absence of internationally/nationally designated sites within 2 km of the site. No impacts on the SSSI are predicted.
- 4.1.1.2 Two Local Wildlife Sites (LWS) and one Local Nature Reserve (LNR) within 2 km of the site. The nearest LWS is Huddersfield Narrow Canal LWS located approximately 455 metres south from the site at its nearest point. Based on the nature of the works, no significant impacts on locally designated sites are predicted.
- 4.1.1.3 No Priority Habitats have been identified within 2 km of the site. No impact on Priority Habitats are predicted.

4.2 Habitats

- 4.2.1.1 The following habitat types have been identified at the site: sealed surface; modified grassland, mixed scrub, introduced shrub and native hedgerow with trees.
- 4.2.1.2 No Habitats of Principal Importance for the conservation of biodiversity in England⁷ have been identified at the site. All habitats at the site are assessed as being of ecological value at the site level or lower. No impacts on Priority Habitats are predicted.

4.3 Invasive Weeds

- 4.3.1.1 One invasive weed species (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 as amended) has been recorded at the site (see Baseline Habitat Map at Appendix 3): a small patch of *Montbretia Crocosmia x crocosmifolia*. Please note that the survey was undertaken at a suboptimal time of year and it is possible that additional non-native invasive weeds may be observable at other times of the year.

4.4 Birds

- 4.4.1.1 No birds were observed at the site during the survey on 14th October 2024. A limited range of common birds could potentially nest at the site, e.g. on the roof of the buildings and in overgrown vegetation and trees at the site.

Recommendations

- 4.4.1.2 Where possible, any works affecting potential bird nesting areas should be undertaken outside the main bird nesting period of March to August (inclusive). If this is not possible, any such works undertaken within the bird nesting period (March to August inclusive) should be supervised by a suitably qualified ecologist. The supervising ecologist should advise all site personnel of the potential presence of nesting birds, their legal protection and the need to minimise disturbance of nesting birds. If active nests are present, they must be retained in situ undisturbed until the nests are no longer active. A nest is classed as active when it contains eggs or chicks and whilst being built.
- 4.4.1.3 It is recommended that bird nesting boxes/bricks should be provided at the site, e.g. Swift Bricks attached to new buildings.

4.5 Bats

⁷ Habitats listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

- 4.5.1.1 No evidence of bat roosts has been identified at the site. Overall, based on all information, it is concluded that the eastern-most building has low bat roost potential and the western-most building has moderate bat roost potential.

Recommendations

- 4.5.1.2 In accordance with current good practice guidelines⁸, should any works affect the buildings, it is recommended that an internal Preliminary Roost Assessment should be undertaken where possible. A minimum of one dusk emergence bat survey should be undertaken at the eastern-most building assessed as having low bat roost potential, and two dusk emergence bat surveys (at least 3 weeks apart) should be undertaken at the western-most building assessed as having medium bat roost potential. All dusk emergence surveys should be undertaken during the optimal survey period of 1st May to 31st August inclusive.
- 4.5.1.3 Depending on the findings of the surveys, it may be necessary to undertake further survey work / mitigation measures potentially including obtaining a European Protected Species Mitigation (EPSM) licence from Natural England before commencing works affecting bat roosts.
- 4.5.1.4 It is recommended that bat boxes/bricks should be attached to new buildings.

4.6 Amphibians

- 4.6.1.1 WYES provided two record of Palmate Newt *Lissotriton helveticus*, and four records of Common Frog *Rana temporaria* within 2 km of the site, but none within 1 km of the site.
- 4.6.1.2 WYES provided no records of Great Crested Newt *Triturus cristatus* within 2 km of the site.
- 4.6.1.3 Two potentially suitable breeding waterbodies for Great Crested Newt have been identified within 500 metres of the site:
- A pond located approximately 295 metres west of the site at its nearest point.
 - River Colne located approximately 440 metres south of the site at its nearest point.
- 4.6.1.4 Based on the distance between the site and both waterbodies, and the presence of barriers to dispersal (such as roads, railways and dwellings) between the site and the waterbodies, it is considered very unlikely that Great Crested Newts will occur at the site.
- 4.6.1.5 No further survey or mitigation measures are considered necessary.

4.7 Water Vole and Otter

- 4.7.1.1 It is considered very unlikely that Water Vole or Otter will occur at the site. No further survey or mitigation measures are considered necessary.

4.8 Reptiles

- 4.8.1.1 It is considered very unlikely that reptiles will occur at the site. No further surveys or mitigation for reptiles is considered necessary.

4.9 Badger and Other Fauna

- 4.9.1.1 No evidence of Badger was observed at the site. Based on the current nature of the habitats within and adjacent to the site, there is low potential for Hedgehog to occur within the site.

⁸ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6.

Recommendations

- 4.9.1.2 It is recommended that any new fences / walls should be fitted with 'Hedgehog Gaps' at their base (each measuring 13cm x 13cm) to enable Hedgehogs to move freely within and beyond the site.

5 Net Gain for Biodiversity

5.1 Methodology

- 5.1.1.1 The Statutory Biodiversity Metric has been used to calculate the baseline value of the site (before development) and the post-development value in order to calculate the Total Net Unit Change.

5.2 Habitat Retention / Creation / Enhancement

- 5.2.1.1 The Habitat Baseline and Proposed Habitat maps are shown in Appendix 3, as based on the following drawing:

- Northern Design Partnership. Proposed Development. Land to Rear of 41 Quarmby Road, Quarmby, Huddersfield, HD3 4EA for Mrs J. Kaye Grimmelikhuijsen. Drawing Site Layout As Proposed Option 2.

5.3 Initial BNG Results and Recommendations

- 5.3.1.1 Based on the current calculations, the development will result in the following changes:

- Habitat Units: Total Net Habitat Unit Change of -0.42 (negative; equivalent to a loss of 45.94% against the baseline value of 0.92 Habitat Units).
- Hedgerow Units: Total Net Hedgerow Unit Change of -0.36 (equivalent to a loss of 100% against the baseline value of 0.36 Hedgerow Units).

- 5.3.1.2 It is recommended that measures should be adopted to provide a Total Project Biodiversity % Change of at least +10% for Habitat Units (i.e. a Total Net Habitat Unit Change of at least +0.10). This could potentially be achieved by measures including: reducing the area of proposed developed land and vegetated gardens; and providing a greater area of proposed area-based habitats such as trees (Moderate Condition) and creation of a mixed scrub area (Moderate Condition) and/or creation of grassland (Moderate Condition).

- 5.3.1.3 It is recommended that measures should be adopted to provide a Total Project Biodiversity % Change of at least +10% for Hedgerow Units (i.e. a Total Net Hedgerow Unit Change of at least +0.01). This could potentially be achieved by measures including: enhancing the hedgerows present on the baseline and/or creation of native hedgerows and/or creation of native hedgerows with trees.

- 5.3.1.4 The calculations above would need to be presented with an accompanying figure showing the locations of the habitats and their conditions in a succinct report for planning purposes.

- 5.3.1.5 Further site visits are not required in order to do this as all data has been collected sufficient to this purpose, unless an excess of 12 months has elapsed from the date of the initial survey.

Appendix 1. Legislation and Conservation Context

European Protected Species (GCN, Otter, all Bats)

Great Crested Newts (GCN), Otter and all British bat species are fully protected through The Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 as a European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the legislation, it is an offence to deliberately capture, injure or kill a GCN, Otter or bat. It is an offence to damage or destroy a breeding site or resting place of a GCN, Otter or bat. It is also an offence to intentionally or recklessly disturb a GCN, Otter or bat while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is also an offence to deliberately disturb a GCN, Otter or bat; in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes... and (e) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

Nesting Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, e.g. barn owl, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Invasive Weeds

Japanese Knotweed *Fallopia japonica*, Giant Hogweed *Heracleum mantegazzianum*, Himalayan Balsam *Impatiens glandulifera*, Wall Cotoneaster *Cotoneaster horizontalis* Montbretia *Crocsmia x crocosmifolia* and several other species are listed in Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to plant these species or otherwise cause them to grow in the wild. Any material containing Japanese knotweed or giant hogweed is also identified as 'controlled waste' under the Environment Protection Act 1990 and must be disposed of properly at landfill

Appendix 2. Photographs

Photo 1. Western-most building on the left, eastern-most building on the right. Looking north-east



Photo 2. Western-most building on the right, individual Wild Cherry tree on the right. Looking west



Photo 3. Looking east near the entrance of the site



Photo 4. Looking south-west across the site



Photo 5. Looking east at introduced shrub



Photo 6. Native Hedgerow with Trees H3 looking north



Photo 7. Native Hedgerow with Trees H1 looking south-west



Photo 8. Looking north from centre of the site.



Photo 9. Montbretia found at the site, invasive weed species (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 as amended)



Photo 10. Western-most building, looking west



Photo 11. Examples of bat roost potential features at the western-most building



Photo 12. Eastern-most building, looking west



Photo 13. Examples of bat roost potential features at the eastern-most building

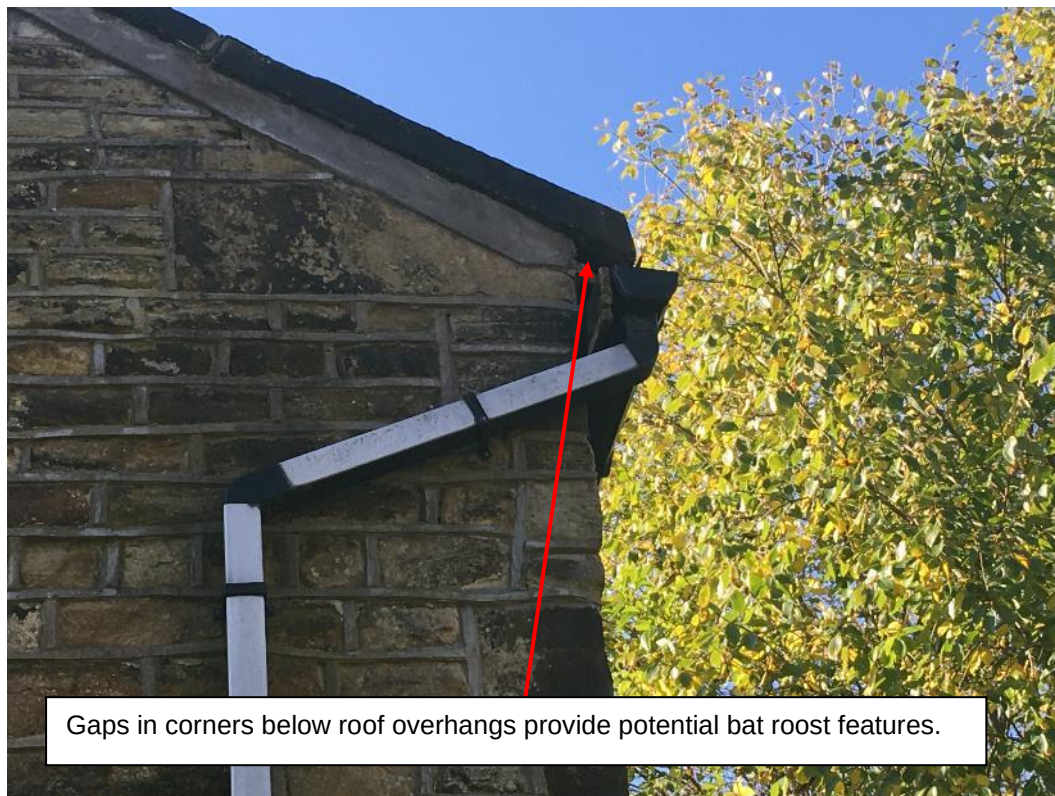
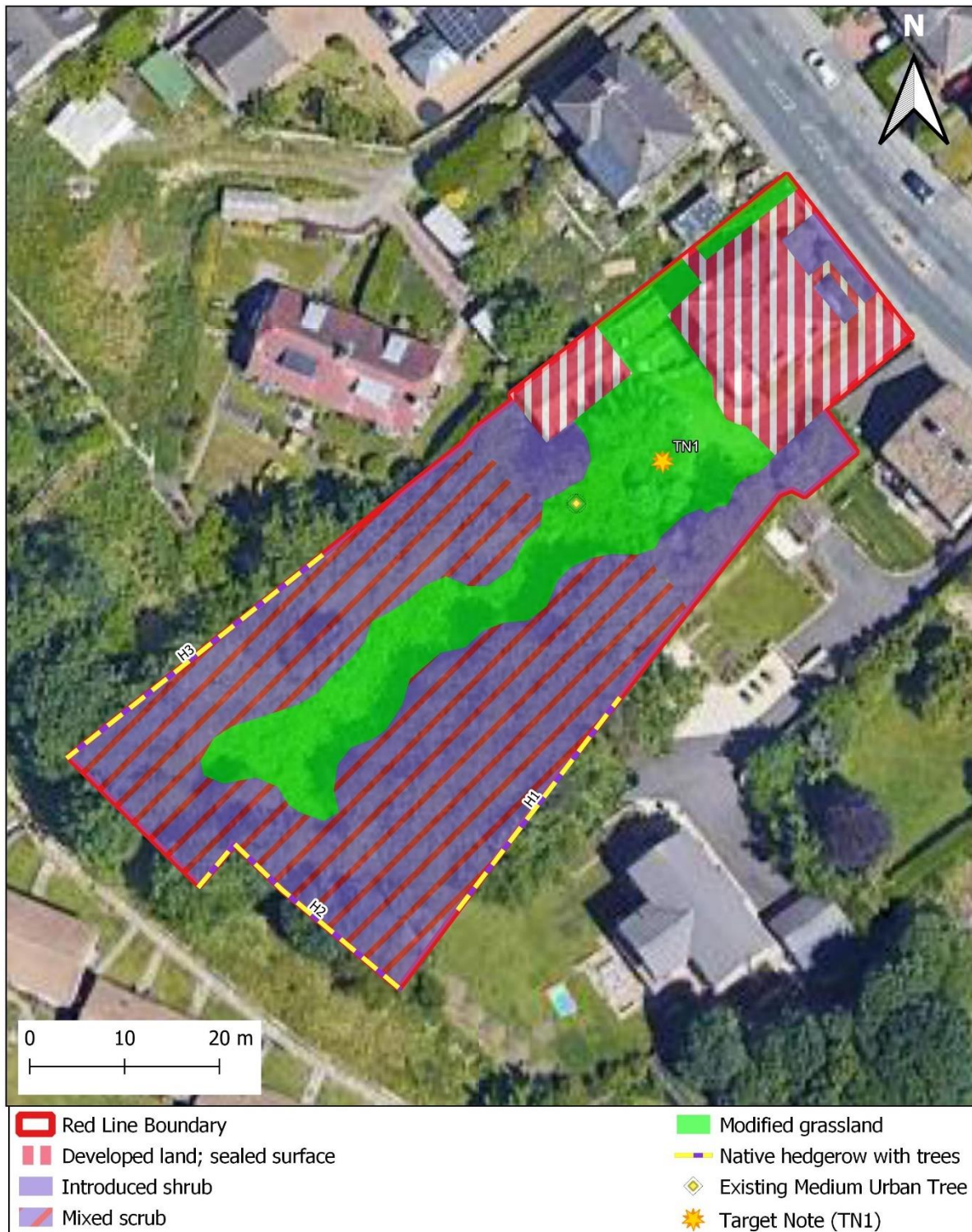


Photo 14. Examples of bat roost potential features at the western-most building



Appendix 3. Baseline Habitat Map

Figure A3.1. Baseline Habitat Map



Target Note 1: Small patch of *Montbretia Crocosmia x crocosmifolia* (listed on Schedule 9 Wildlife and Countryside Act 1981 as amended)

Figure A3.2. Proposed Habitat Map