

# PRELIMINARY ECOLOGICAL APPRAISAL

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**MARCH 2026**

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**Stairfoot Quarry**

Sandy Gate Lane,  
Ardsley,  
Barnsley,  
S71 5AW

U R B A N  
G R E E N



# QUALITY MANAGEMENT

<b>Project No.:</b>	UG1773				
<b>Project:</b>	Stairfoot Quarry				
<b>Location:</b>	Sandy Gate Lane, Ardsley, Barnsley, S71 5AW				
<b>Title:</b>	Preliminary Ecological Appraisal				
<b>Document Type:</b>	PEA	<b>Issue No.:</b>	01		
<b>Date:</b>	February 2025				
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03	21/01/2026	Amendments to address comments from Planning Ecologist	Jake Healy	Oliver Silver	

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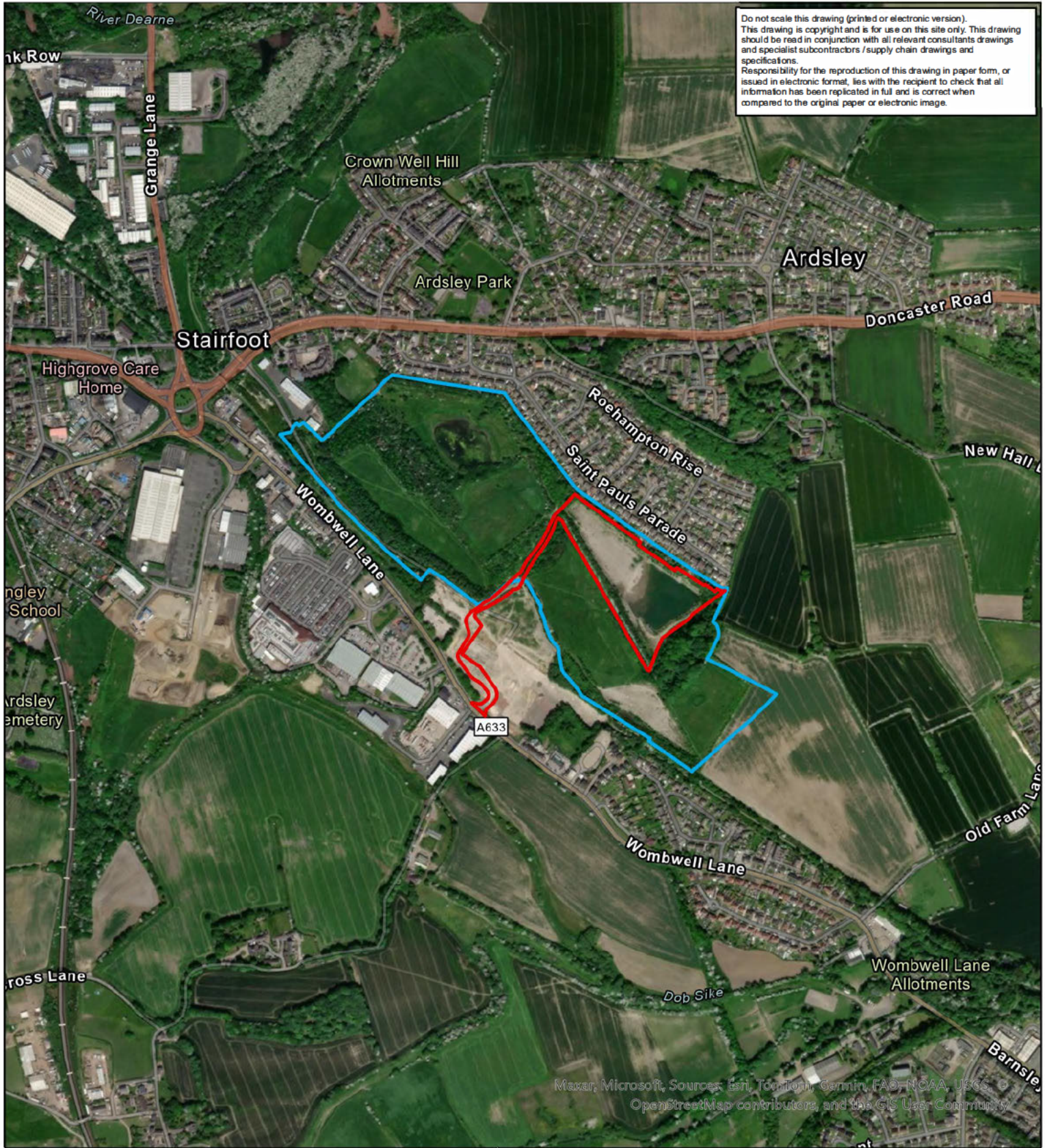
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# 1 Executive Summary



- 1.1.1.1 Green Earth Developments (Group) Ltd is proposing to develop land at Stairfoot Quarry in Ardsley, Barnsley (hereafter referred to as ‘the site’). The proposals include an ecological restoration scheme after an operation period as an inert waste landfill site.
- 1.1.1.2 Urban Green has been appointed to complete a Preliminary Ecological Appraisal of the site. The objectives of the assessment are to identify habitats on site and determine the suitability for any ‘protected and/or notable’ species that may occur on site. Further ecological surveys and mitigation, where appropriate, are recommended which aim to minimise potential impacts on ecology, due to the proposed development.
- 1.1.1.3 Following the survey work, the key recommendations are summarised in the following table:

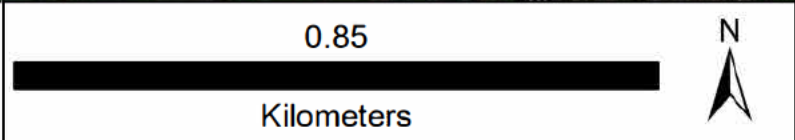
**Table 1. PEA Summary Findings**

Current Site Use and Adjacent Site Use	The site is a former mineral extraction quarry, that has been disused for numerous years and now forms part of a large public open space, with various public footpaths running throughout.
Potential Impacts on Designated Sites	No National Site Network sites are located within the identified risk zone; however, two Sites of Special Scientific interest are located within 2km of the site. No non-statutory designated sites are located within 500m. Informed by consultation with MAGiC, the proposed development has the potential to impact statutory designated sites and consultation with Natural England is recommended.
Habitats	The site predominantly comprises of Yew Tree Quarry consisting of sparsely vegetated land, large area of standing water and mixed scrub, with areas of modified grassland, broadleaved woodland, hardstanding, a line of trees and two hedgerows.
Ecological Constraints	The following ecological constraints were identified on site/within the Survey Area: <ul style="list-style-type: none"> <li>• Two habitats of principal importance are present within the site extent; broadleaved woodland and a pond.</li> <li>• Suitable habitats for common amphibians, bats, hedgehog and other small mammals, and badger.</li> <li>• Confirmation of grass snake, commuting and foraging bats, breeding birds, and notable invertebrates within the Survey Area.</li> <li>• Two areas of mammal holes (TN1) are present on site.</li> <li>• Five trees are assessed as having suitable potential roosting features.</li> </ul>
Recommended Ecological Mitigation	A Precautionary Method of Works document should be produced in advance of works commencing on site covering designated sites, woodland, ponds, common amphibians, invertebrates, nesting birds, bats, reptiles, hedgehog and other small mammals, and badger.
Recommended Further Surveys and Reports	Previous protected species survey work was completed on site in 2023, the results of which are considered valid until May 2025. As such no further survey work is deemed necessary. However, after this date an ecologist should be consulted to discuss updating the current survey work.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2024) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site, and ecological enhancements have been recommended.



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Legend:	 Red Line Boundary
	 Ownership



Client:	<b>Green Earth Developments (Group) Ltd</b>
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Issue:	<b>01</b>	Figure:	<b>01</b>
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Project:	<b>Stairfoot Quarry</b>
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Scale @ A4	<b>1:10,000</b>
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Title:	<b>Site Context</b>
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Approved by:	<b>CL</b>	Checked by:	<b>JH</b>
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A: Ground Floor, The Tower,  
 Deva City Office Park, Trinity Way,  
 Manchester M3 7BF  
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 weareurbangreen.co.uk

Drawing Ref:	<b>UG_1773_SITE_CONTEXT</b>
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Author:	<b>CL</b>	Date:	<b>07/08/2024</b>
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# U R B A N G R E E N

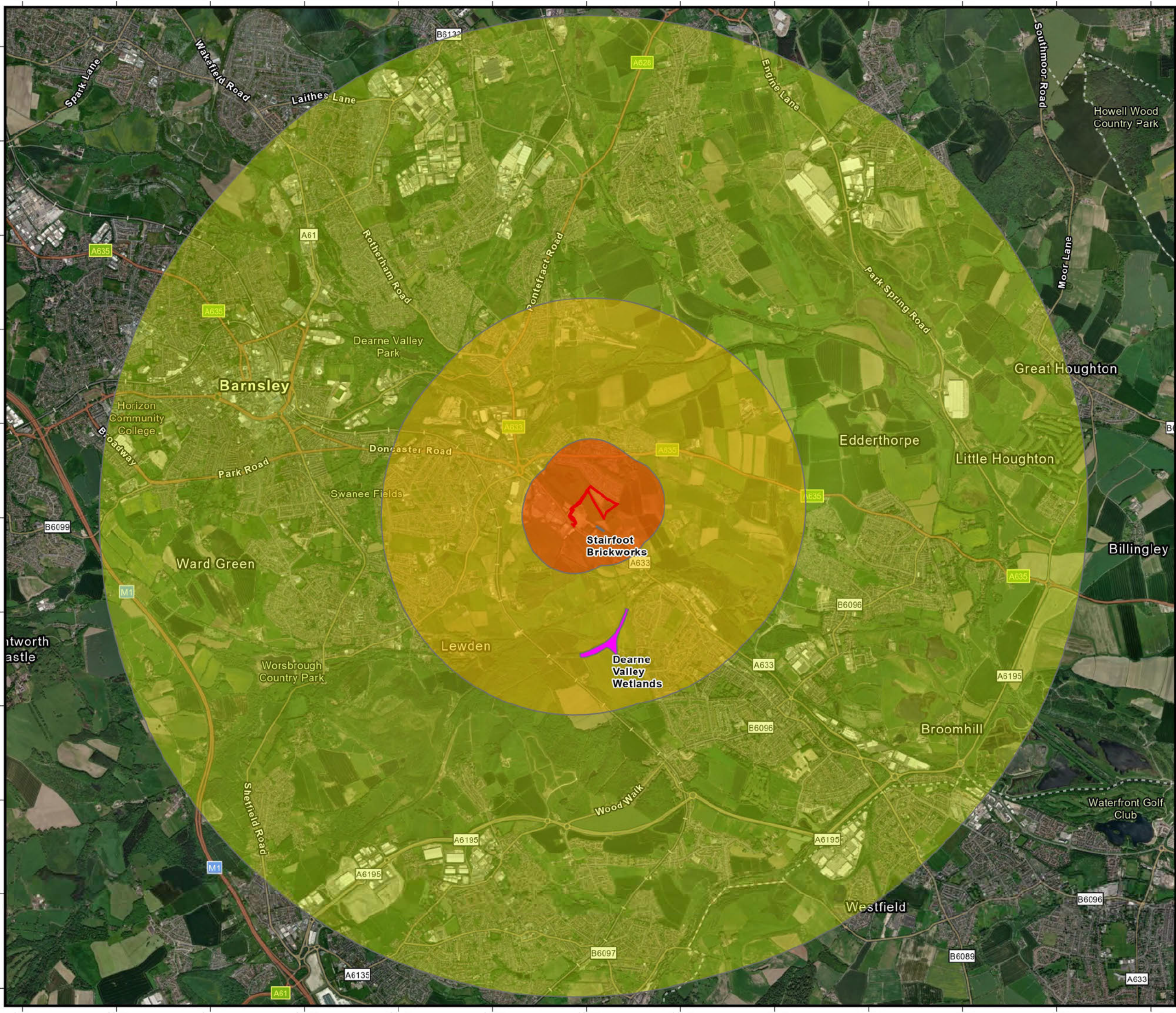
## Legend

- Red Line Boundary
- 500m Buffer
- 2km Buffer
- 5km Buffer
- Local Wildlife Sites
- Sites of Special Scientific Interest (England) © Natural England



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Client: <b>Green Earth Developments Ltd</b>		
Project: <b>Stairfoot Quarry</b>		
Title: <b>Designated Sites Results</b>		
Issue: <b>01</b>	Figure: <b>02</b>	
Drawn: <b>CL</b>	Checked: <b>JH</b>	Approved: <b>JH</b>
Project: <b>UG1773</b>	Scale @ A3: <b>1:37,000</b>	Date: <b>06/02/2025</b>
Dwg No: <b>UG_1773_ECO_DS_01</b>		Revision: <b>01</b>





# U R B A N G R E E N

**Legend**

- Red Line Boundary
- Mixed scrub
- Modified grassland
- Other broadleaved woodland
- Other developed land
- Other standing water
- Sparsely vegetated urban land
- Other neutral grassland
- Survey area
- Line of trees
- Other native hedgerows

**GLTA Bat Potential**

- FAR
- PRF
- PRF-I
- PRF-M
- Target Note TN1 - Mammal hole

0 20 40 80 Meters



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Client: <b>Green Earth Developments Ltd</b>		
Project: <b>Stairfoot Quarry</b>		
Title: <b>UKHAB Habitat Map</b>		
Issue: <b>01</b>	Figure: <b>00</b>	
Drawn: <b>CL</b>	Checked: <b>JH</b>	Approved: <b>JH</b>
Project: <b>UG1773</b>	Scale @ A3: <b>1:1750</b>	Date: <b>30/01/2025</b>
Dwg No: <b>UG_1773_ECO_HM_01</b>		Revision: <b>01</b>

Figure 4. Photographs of the Site



Photograph 1: Basin of Yew Tree Quarry



Photograph 2: Northern embankment of Yew Tree Quarry



Photograph 3: Parcel of broadleaved woodland forming proposed access track



Photograph 4: Parcel of broadleaved woodland at southeastern extent of Yew Tree Quarry



Photograph 5: Modified grassland at west of site forming proposed access track with earth mound



Photograph 7: Hardstanding at western extent of site



Photograph 6: Public footpath through the site bound by two lengths of hedgerow



Photograph 8: Mixed scrub on northwestern embankment of Yew Tree Quarry



Photograph 9: Standing water within basin of Yew Tree Quarry



Photograph 10: Line of trees along proposed access track



Photograph 11: Mammal holes (TN1) at northern end of proposed access track



Photograph 12: Mammal holes (TN1) at southeastern extent of Yew Tree Quarry



Photograph 13: T1 - Mature Beech (PRF)



Photograph 14: T1 - PRF-A, hazard beam



Photograph 15: T2 - Mature oak (PRF)

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Photograph 16: T2 – PRF-A, woodpecker hole



Photograph 17: T2 – PRF-B, tear out



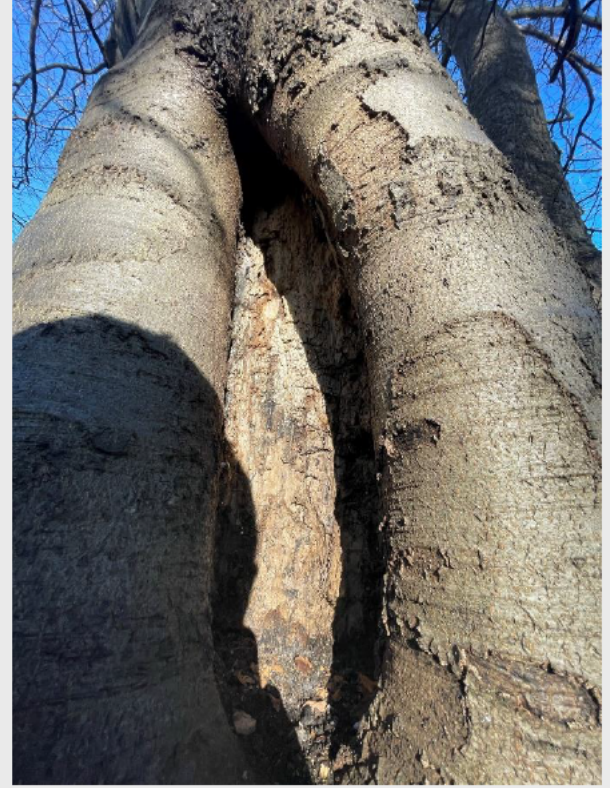
Photograph 18: T3 – Mature oak (PRF)



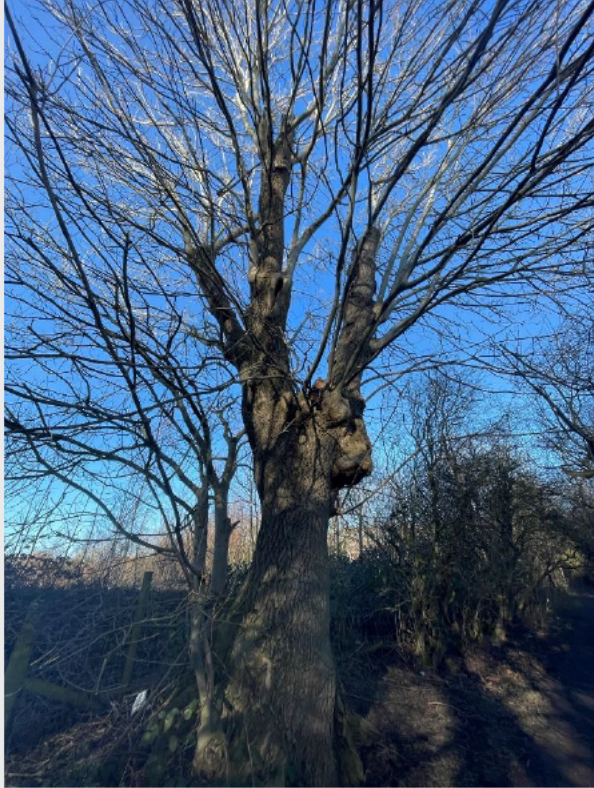
Photograph 19: T3 – PRF-A, knot hole



Photograph 20: T4 – Mature beech (PRF-M)



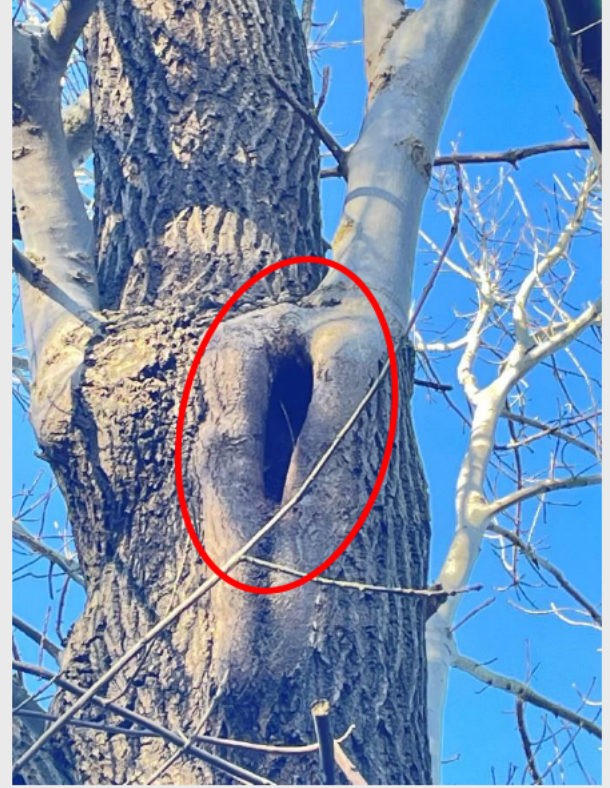
Photograph 21: T4 – PRF-A, stem cavity



Photograph 22: T5 - Mature oak (PRF)



Photograph 23: T5 - PRF-A, woodpecker hole



Photograph 24: T5 - PRF-B, tear out

## 2 Introduction

### 2.1 Scope

- 2.1.1.1 Urban Green has been instructed by Green Earth Developments (Group) Ltd to carry out a Preliminary Ecological Appraisal to British Standard 42020:2013 guidelines at Stairfoot Quarry and produce our findings in a technical report.
- 2.1.1.2 The proposals include the restoration of Yew Tree Quarry, through the infill of non-hazardous excavated soil materials. It is understood that the operational phase of the development will last for approximately 111 weeks and will require the following activities:
- Vegetation removal, including areas of woodland,
  - Breaking of ground,
  - Use of heavy machinery, including ~80 HGV tippers per day,
  - Infill of quarry, and other associated activities
- 2.1.1.3 Following the operational phase of the site, it is understood that the quarry is to be capped, and an ecological restoration scheme be completed.

### 2.2 Site Context

- 2.2.1.1 The site is located at National Grid Reference SE 38138 05192 and the planning application boundary comprises a total area of approximately 4.3ha (see Figure 1).
- 2.2.1.2 The site is located in the rural-urban fringe of Barnsley, approximately 3km south-east of the town centre. The site is bound by residential properties to the north, arable land to the east, with industrial and commercial units to the south and west. Doncaster Road (A635) is present approximately 270m north of the site, with Wombwell Lane (A633) present immediately adjacent the southwestern extent of the site. The wider landscape is dominated by urban development to the north and west while large expanses of open arable land are present to the east and south, including areas of woodland to the south. The River Dearne is located approximately 1.2km north of the site.

### 2.3 Purpose of Report

- 2.3.1.1 This report has been produced to set out the methods, results, and conclusions of a PEA. The purpose of the PEA report is to identify habitats on site and determine the sites potential value for protected and/or notable fauna and flora, with the addition of potential impacts on designated sites. This will inform the need for any further ecological surveys and/or mitigation to minimise the potential impacts on ecology on site and within the local area.
- 2.3.1.2 Further information and details of UK legislation for those species which are formally protected is defined in Appendix 1, which are considered throughout the assessment.
- 2.3.1.3 The National Planning Policy Framework (NPPF) (2024) and other Local Planning Policies are considered with the PEA. Ecological enhancements are advised to be in line with relevant Planning Polices.

## 3 Previous Survey Effort

### 3.1 Urban Green, 2023

- 3.1.1.1 Urban Green were commissioned by Green Earth Developments (Group) Ltd to conduct a Preliminary Ecological Appraisal of their site at Stairfoot Quarry in March 2023. The survey included the entire ownership boundary, comprising approximately 29.1ha.
- 3.1.1.2 The site was found to be a large area of public open space, comprising a mosaic of habitat types, dominantly grassland and woodland, though areas of scrub, other developed land, a building, three water bodies, and various hedgerows and lines of trees were also present.
- 3.1.1.3 Various ecological constraints were identified, including:
- Presence of designated sites within the potential risk zone,
  - One building and two trees were assessed as having suitable bat roosting potential,
  - Suitable habitats present for a range of faunal species (invertebrates, amphibians, reptiles, birds, bats, hedgehog, and badgers), and
  - Presence of invasive species (Japanese knotweed and rockspray cotoneaster).
- 3.1.1.4 As a result, further survey work was recommended and completed on site during 2023, this included:
- Bat surveys (Urban Green, 2026a),
  - Breeding bird surveys (Urban Green, 2026b),
  - Great crested newt surveys (Urban Green, 2025a),
  - Invertebrate surveys (Urban Green, 2025b), and
  - Reptile surveys (Urban Green, 2026c)

## 4 Methods

4.1.1.1 The PEA assessment and Report follows the good practice methodology as detailed within the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2019).

### 4.2 Desk Study

#### 4.2.1 Online Resources and Local Records Centre

4.2.1.1 Due to the size and context of the site, being located within the rural-urban fringe area of Barnsley, a 2km Local Data Search was conducted as it is deemed an appropriate distance for the Zone of Influence.

4.2.1.2 Sources of information used in the desk study are presented in Table 2.

**Table 2. Desk Study Sources of Information**

Source	Date Consulted	Information Sought
MAGIC website ( <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> )	03/02/2025	Locations of statutory designated sites within 1km of the site boundary.  Locations of National Site Network sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary.  Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England ( <a href="https://designatedsites.naturalengland.org.uk/">https://designatedsites.naturalengland.org.uk/</a> )	03/02/2025	Relevant statutory designated site citations.
JNCC ( <a href="https://jncc.defra.gov.uk/">https://jncc.defra.gov.uk/</a> )	03/02/2025	Information on European wildlife sites.  Details of relevant Section 41 species and habitats.
Sheffield Biological Records Centre	11/02/2025	Locally designated wildlife sites within 1km of site boundary.  Records of protected and notable species within 1km of the site boundary.
Barnsley Local Biodiversity Action Plan	11/02/2025	Species and habitats which are given special conservation status at the local level.

### 4.3 Field Survey

#### 4.3.1 Vegetation

4.3.1.1 The site was subject to a field survey on 29<sup>th</sup> January 2025, by Jake Healy, Ecologist. The weather conditions were 6°C, clear (0/8 oktas), wind speed 1 Beaufort scale.

- 4.3.1.2 The methods were based on the standard methodology as detailed by The UK Habitat Classification User Manual (UKHab Ltd. 2023). A UKHab Habitat Plan has been produced to demonstrate habitats within the proposed development and the surrounding area. The mapping techniques are based on The UK Habitat Classification User Manual (Butcher et al, 2020) guidance.
- 4.3.1.3 Flora species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey.
- 4.3.1.4 Species abundance is described using the DAFOR scale as shown in Table 3. Percentages are an approximate indication rather than a quantitative measure.

**Table 3. Key to species abundance**

Code	Category	Description	Indicative Percentage Ranges
D	Dominant	Covers most of the area	50% or greater
A	Abundant	Very common throughout the area.	30 – 50%
F	Frequent	Common or with many individuals.	15 – 30%
O	Occasional	Occurs in several places but not throughout; populations are not large.	5 – 15%
R	Rare	Occurs in low numbers in relation to size of area.	Less than 5%

“L” will be used to indicate abundance in a localised area, e.g. LA = Locally abundant

- 4.3.1.5 Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were noted during the field survey when sighted.

## 4.3.2 Fauna

- 4.3.2.1 A site search for field signs of protected and notable fauna was undertaken, and incidental sightings are detailed. The searches completed were as follows:
- Suitability of any ponds to support notable and protected amphibians, and the suitability of the site’s terrestrial habitats to support amphibians.
  - Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
  - Search of any watercourses for signs or suitability for white-clawed crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts, and foraging signs.
  - Suitability of the site to support notable bird species. Bird nests and droppings of notable and protected bird species.

- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.
- Badger (*Meles meles*) field signs such as setts, mammal, paths, snuffle holes and latrines.
- Suitability of the site to support notable terrestrial mammals including harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

## 4.4 Bat Assessment

### 4.4.1 Ground Level Tree Assessment

- 4.4.1.1 A Ground Level Tree Assessment (GLTA) was carried out on site as part of the PEA.
- 4.4.1.2 The GLTA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 4th edition (Collins, 2023).
- 4.4.1.3 The survey involves a detailed inspection of trees from the ground to compile information about the tree, Potential Roosting Features (PRF) (or lack of), and any evidence of bats.
- 4.4.1.4 The inspection was conducted systematically and consistently around all parts of the tree (from all angles, both up close to the trunk and further away, where access permitted).
- 4.4.1.5 Binoculars were also used to focus in on features higher up the trunk and on upper canopy limbs when required.
- 4.4.1.6 All features identified were recorded utilising ArcGIS Field Maps, allowing for GPS data to be recorded for each feature.
- 4.4.1.7 During a GLTA, the suitability of trees and PRFs can be categorised according to the categories outlined in Table 4. However, at this stage, the PRFs are not inspected in further detail (aerially, with an endoscope etc.) and therefore this is only an estimate of their potential for supporting roosting bats.

**Table 4. Suitability of Trees for Roosting Bats (adapted from Collins, 2023)**

Category of Suitability	Category definition
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

### 4.4.2 Commuting and Foraging Bats

- 4.4.2.1 The site was assessed for its suitability for use by commuting and foraging bats.

4.4.2.2 The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4<sup>th</sup> edition (Collins, 2023). The categorisation within this report is based on that set out in Table 4, which is used as a basis for determining the requirement for further surveys.

**Table 5. Suitability of site for foraging and commuting bats**

Category of Suitability	Typical Characteristics
High Suitability	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
Low Suitability	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Negligible Suitability	No features on site suitable for use by commuting and foraging bats.

## 4.5 Constraints to the Survey

- 4.5.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.
- 4.5.1.2 This PEA does not constitute a full botanical survey. The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat.
- 4.5.1.3 January is a suboptimal time for carrying out UKHab Habitat Surveys due to being outside of the optimal plant growing season. Therefore, it is likely that some plants are present on the site but were not evident at the time of the survey and were not recorded. This is not considered to be a significant constraint with regards to the general UKHab Habitat Survey results as the habitats remained consistent with previous surveys, and due to the size and location of the site and limited extent of the habitats, it is considered very unlikely that any rare or priority plant species were missed.
- 4.5.1.4 It should not, however, be taken as providing a full and definitive survey of any protected species group.
- 4.5.1.5 Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

- 4.5.1.6 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.
- 4.5.1.7 The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. Green Earth Developments Group Ltd may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

## 4.6 Lifespan of Report

- 4.6.1.1 In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until 29<sup>th</sup> July 2026). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

## 4.7 Definitions

- 4.7.1.1 For the purposes of this report, the term 'protected and notable species' relates to:
- Species included on Schedules 2 and 4 of *The Conservation of Habitats and Species Regulations 2017*;
  - Species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see section 9[5] and 13[2]);
  - Invasive non-native species included on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended);
  - Species of principal importance for the conservation of/maintaining and enhancing biodiversity as required under: Section 41 of the *Natural Environment and Rural Communities Act 2006* (England), Section 7 of the *Environment (Wales) Act 2016*, Section 2[4] of the *Nature Conservation (Scotland) Act 2004*;
  - Local species of importance as identified within various local biodiversity action plans; and,
  - Badgers, which are protected under the *Protection of Badgers Act 1992*.

## 5 Baseline Ecological Conditions

### 5.1 Site Context

- 5.1.1.1 The site is located in the rural-urban fringe of Barnsley, approximately 3km south-east of the town centre. A mosaic of urban sprawl, public greenspace, and arable land comprise the surrounding landscape. The River Dearne is located approximately 1.2km north of the site, with Netherwood Country Park located approximately 1km south-east of the site, with no significant dispersal barriers present.
- 5.1.1.2 It is anticipated these habitats will provide suitable foraging, resting, and commuting resources within the local area for a variety of wildlife, such as birds, bats, and other terrestrial mammals.

### 5.2 Designated Sites

- 5.2.1.1 No sites that form part of the National Site Network were located within 5km of the site boundary, though two other statutory designated sites were located within 2km of the site boundary. No non-statutory designated site is located within 500m of the site and is detailed within Table 6 (see Figure 2).

**Table 6. Designated sites returned during the desk study**

Designated Site	Approx. Distance from Site	Details
Statutory designated sites		
Stairfoot Brickworks Site of Special Scientific Interest (SSSI)	100m south	Provides the best available exposure of the Aegiranum Marine Band within the Pennine Basin as well as the best known exposure of the ammonoid bearing part of the marine band in the world.
Dearne Valley Wetlands SSSI	950m south	Comprises a network of 22 wetland, scrub and woodland areas that extends through the catchment of the River Dearne and supports the following nationally important features: <ul style="list-style-type: none"> <li>Breeding gadwall (<i>Mareca strepera</i>), shoveler (<i>Spatula clypeata</i>), garganey (<i>Spatula querquedula</i>), pochard (<i>Aythya farina</i>), bittern (<i>Botaurus stellaris</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>) and willow tit (<i>Poecile montanus klienschmidt</i>).</li> <li>Non-breeding gadwall and shoveler.</li> </ul> Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen.

- 5.2.1.2 The site falls within the Impact Risk Zone of the statutory site, Dearne Valley Wetlands SSSI detailed in Table 6.

### 5.3 Flora and Fauna

5.3.1.1 The following section summarises protected and/or notable species records that have been recorded within 2km of the site, within the last 10 years.

#### 5.3.1 Invertebrates

5.3.1.1 Twenty-nine records of notable species were returned, including cinnabar (*Tyria jacobaeae*), dingy skipper (*Erynnis tages*), shaded broad-bar (*Scotopteryx chenopodiata*), small heath (*Coenonympha pamphilus*), small square-spot (*Diarsia rubi*) and white-letter hairstreak (*Satyrrium w-album*).

5.3.1.2 The closest record attributed to a record of small heath located approximately 480m southwest of the site from 2023.

5.3.1.3 All species returned are listed on Section 41 of the Natural Environment and Rural Communities Act (NERC) (2006). Dingy skipper and white-letter hairstreak are listed on the Barnsley Local Biodiversity Action Plan (LBAP).

#### 5.3.2 Vascular Plant

5.3.2.1 The data search returned two records of notable vascular plant species including cornflower (*Centaurea cyanus*) and chamomile (*Chamaemelum nobile*). The closest record attributed to chamomile, which was located approximately 940m southwest of the site in 2024.

5.3.2.2 Cornflower and chamomile are both listed on the LBAP.

#### 5.3.3 Reptiles

5.3.3.1 Five records of notable reptiles were returned from the data search, comprising common lizard (*Zootoca vivipara*) and grass snake. The closest record was attributed to a record of grass snake, located approximately 1.7km northwest of the site from 2018.

5.3.3.2 Both species are listed on Schedule 5 of the WCA (1918) and further listed on the LBAP.

#### 5.3.4 Birds

5.3.4.1 A total of 577 records of protected or notable birds were returned within the data search, comprising 48 species. Of these records 37 related to Schedule 1 birds as detailed in Table 7.

**Table 7. Schedule 1 birds recorded within 2km**

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
<i>Tyto alba</i>	Barn owl	Sch.1	On site	2020
<i>Turdus pilaris</i>	Fieldfare	Sch.1, BoCC5	860m south	2016
<i>Tringa ochropus</i>	Green sandpiper	Sch.1, BoCC5	950m south	2016

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
<i>Alcedo atthis</i>	Kingfisher	Sch.1	940m southeast	2014
<i>Turdus iliacus</i>	Redwing	Sch.1, BoCC5	650m south	2016
<i>Cygnus cygnus</i>	Whooper Swan	Sch.1, BoCC5	1.25km northwest	2016

### 5.3.5 Bats

- 5.3.5.1 Ten records of bats were returned within 2km of the site, including records of common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and noctule (*Nyctalus noctula*).
- 5.3.5.2 All species returned are listed on the Habitats and Species Regulations (2017) and LBAP. Soprano pipistrelle are listed on Section 41 of NERC (2006).
- 5.3.5.3 MAGIC also detailed the presence of four granted EPSL within 2km of the site, detailed in Table 8.

**Table 8. Granted EPSL within 2km regarding bats**

Case Reference of Application	Species covered	License Allowance
2016-26581-EPS-MIT-1	Soprano Pipistrelle	Destruction of a breeding place
2016-26581-EPS-MIT-2	Soprano Pipistrelle	Destruction of a breeding place
2016-26581-EPS-MIT-3	Soprano Pipistrelle	Unknown
2016-26581-EPS-MIT	Soprano Pipistrelle	Destruction of a breeding place

### 5.3.6 Hedgehog

- 5.3.6.1 Four records of hedgehog (*Erinaceus europaeus*) were returned with 2km of the site, with the closest record located approximately 330m north of the site from 2018.
- 5.3.6.2 Hedgehog are listed on Section 41 of the NERC Act (2006) and the LBAP.

### 5.3.7 Otter

- 5.3.7.1 Three records of otter (*Lutra lutra*) were returned in the data search, the closest record being approximately 1.2km north in 2021.
- 5.3.7.2 Otter are listed on the Habitats and Species Regulations (2017), WCA (1981), Section 41 of NERC (2006) and the LBAP.

### 5.3.8 Badger

- 5.3.8.1 Fifteen records of badger were returned in the data search, with the closest record being within 150m of site in 2024.
- 5.3.8.2 Badger are protected by the Protection of Badgers Act (1992).

### 5.3.9 Invasive Non-native Species

#### Fauna

- 5.3.9.1 Eight records of American mink (*Neovison neovison*) and signal crayfish (*Pacifastacus leniusculus*) were returned within 2km, with the closest record attributing to signal crayfish, located approximately 720m south-west of the site in 2017.

#### Flora

- 5.3.9.2 Two-hundred-and-thirty-nine records of invasive non-native plant species were returned within 2km of the site, comprising Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*), Himalayan balsam (*Impatiens glandulifera*) and New Zealand pigmyweed (*Crassula helmsii*). The closest record to site was attributed to New Zealand pigmyweed, located approximately 170m south of the site in 2021.

### 5.3.10 No Records Returned

- 5.3.10.1 The data search returned no records for:
- Amphibians
  - Great crested newt
  - Hazel dormice (*Muscardinus avellanarius*)
  - Red squirrel (*Sciurus vulgaris*)
  - Water vole
  - White-clawed crayfish

## 5.4 Field Survey

- 5.4.1.1 The site habitats and accompanying Target Notes are presented in the UKHab Habitat Map in Figure 3.
- 5.4.1.2 Secondary codes are added to confirm the identity of a habitat (when necessary), and also to provide information on management and the environment relating to that habitat parcel. The number and type of secondary codes added to a primary habitat will vary depending on the habitats present. There is no limit to the number of secondary codes that can be used for a single parcel. More details regarding the secondary codes used can be found in Appendix 2.

### 5.4.2 Sparsely vegetated urban land

- 5.4.2.1 The large majority of the site consisted of sparsely vegetated urban land, comprising bare ground/hardstanding surfaces which had been occasionally colonised by ruderal/ephemeral vegetation.
- 5.4.2.2 The largest area constituted the basin of Yew Tree Quarry, the main feature of the site, the embankments of the quarry were relatively steep and inaccessible for survey. The quarry basin is mapped as Open Mosaic Habitat (OMH), a priority habitat, on MAGIC Maps. However, during the field survey of the site it was assessed that the habitat present on the ground did not qualify as OMH due to a lack of early successional vegetation communities and little spatial variation. As such, it was assessed as sparsely vegetated urban land with low levels of ruderal vegetation.
- 5.4.2.3 Vegetation included teasel (*Dipsacus fullonum*), *Sphagnum* moss, annual meadow grass (*Poa* sp.), St. John's wort (*Hypericum* sp.), prickly sowthistle (*Sonchus asper*), cats ear (*Hypochaeris radicata*), and birch (*Betula* sp.) saplings.

### 5.4.3 Other broadleaved woodland

- 5.4.3.1 Broadleaved woodland was the second most abundant habitat within the site extent, the majority of which comprised semi-natural woodland that had established over the last 30+ years.
- 5.4.3.2 The first parcel of woodland forms the proposed access track to Yew Tree Quarry and extends beyond the site boundary, consisting of self-set birch, wild cherry (*Prunus avium*), goat willow (*Salix caprea*), ash (*Fraxinus excelsior*), white willow (*Salix alba*), field maple (*Acer campestre*), hawthorn (*Crataegus monogyna*), aspen (*Populus tremula*), dogwood (*Cornus sanguinea*), and hazel (*Corylus avellana*).
- 5.4.3.3 The second and third parcels of woodland are located along the southern and north-eastern embankments of Yew Tree Quarry and appeared to be self-set specimens that had established more recently, following the abandonment of the former mineral quarrying activities on site. These areas were predominantly birch, goat willow, and grey willow (*Salix cinerea*), with lesser frequent occurrences of hawthorn, ash, sycamore (*Acer pseudoplatanus*), and elm (*Ulmus* sp.).
- 5.4.3.4 These three blocks of woodland were relatively immature with little complexity in the woodland structure and were densely compacted with tree stock due to a lack of management. As such, these parcels of woodland were not assessed to qualify as priority habitat "Lowland Mixed Deciduous Woodland".

5.4.3.5 Adjacent the eastern boundary of Yew Tree Quarry (off-site) is a larger parcel of more mature woodland with areas of temporary open space and more established ground flora. This parcel of woodland is covered by an active Tree Preservation Order (TPO) as detailed in the associated Arboricultural Impact Assessment (Urban Green, 2025a) and has been considered due to its proximity to the site. This woodland is also assessed as qualifying as the priority habitat “Lowland Mixed Deciduous Woodland” based on the JNCC UK Biodiversity Action Plan; Priority Habitat Descriptions.

#### **5.4.4 Open mosaic habitat**

5.4.4.1 The proposed access route into the site (the southeastern section of the site), passes through a previously developed parcel of land which has been abandoned for a number of years and allowed to naturally succeed, through a lack of management.

5.4.4.2 This area supports a mosaic of habitats including other neutral grassland and bare ground/slate substrate. The ground was fairly saturated at the time of survey and plants indicative of a high water table were present, including willowherb (*Epilobium* sp.), as well as teasel, buddleia (*Buddleja davidii*), white clover (*Trifolium repens*), creeping buttercup (*Ranunculus repens*), Yorkshire fog (*Holcus lanatus*), annual meadow grass, bramble (*Rubus fruticosus* agg.), cock’s foot (*Dactylis glomerata*), tiny vetch (*Vicia hirsuta*), and St John’s wort.

5.4.4.3 Whilst the field survey was undertaken outside of the optimal survey season for botanical identification, a site visit, including a UKHab survey, was conducted within this section of the site by Peak Ecology in 2023, associated with a separate planning application (reference: 2024/0373), during the correct season. The results of the survey assessed this mosaic of habitat to qualify as the priority habitat Open Mosaic Habitats on Previously Developed Land, passing each of the five criteria outlined within the JNCC UK Biodiversity Action Plan Priority Habitat Description. It was noted that while the habitat qualifies, it was a poor example of this habitat type due to limited botanical species diversity and was at risk of being lost naturally due to scrub colonisation.

5.4.4.4 Based on the conditions identified on site in 2025, combined with the additional context of the assessment made by Peak Ecology (2023), it is assessed that this section of the site qualifies as Open Mosaic Habitat on Previously Developed Land (Secondary Code: 80).

#### **5.4.5 Modified grassland**

5.4.5.1 An area of modified grassland runs along the southern edge of Yew Tree Quarry, forming a public footpath through the site and is predominantly bare ground due to regular trampling. Sparse vegetation comprising annual meadow grass, daisy (*Bellis perennis*), and red clover (*Trifolium pratense*) were present.

#### **5.4.6 Other developed land**

5.4.6.1 The south-western extent of the site is formed of hardstanding with relatively little vegetation growth present.

#### **5.4.7 Mixed scrub**

- 5.4.7.1 The north-eastern embankment of Yew Tree Quarry was dominated by scrub habitat, consisting of birch, bramble, teasel, rose (*Rosa* sp.), and other ephemeral/ruderal vegetation.

#### **5.4.8 Pond**

- 5.4.8.1 The southern half of Yew Tree Quarry held a large area of water, that had accumulated naturally in the quarry basin. This waterbody had no aquatic vegetation growing within and is understood to fluctuate naturally throughout the year associated with periods of hot weather and heavy rainfall.

#### **5.4.9 Line of trees**

- 5.4.9.1 A single line of trees is present along the northern boundary of the proposed access route, adjacent to the second parcel of modified grassland. This included goat willow, birch, alder, blackthorn (*Prunus spinosa*), and ash.

#### **5.4.10 Hedgerows**

- 5.4.10.1 Two hedgerows ran parallel to each other within the centre of the site formally demarcating the public footpath that runs through the site. These hedgerows measured approximately 350m in length and comprised dominant hawthorn, with occasional field maple, blackthorn, dog rose, and bramble.

## 5.5 Site Suitability for Protected and Notable Species

### 5.5.1 Species Discounted from Assessment

- 5.5.1.1 White-clawed crayfish (*Austropotamobius pallipes*) have been discounted from assessment as no suitable aquatic habitats are located on site or within proximity.
- 5.5.1.2 Hazel dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews *et al.*, 2018). The species are not generally known to be present within the area (Wembridge *et al.*, 2016). The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.
- 5.5.1.3 Red squirrel have been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel (*Sciurus carolinensis*) are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

### 5.5.2 Vascular Plants

- 5.5.2.1 A mosaic of habitats is present within the site extent, including woodland, grassland, scrub and various disturbed land. The majority of urban land (quarry basin and hardstanding) has little vegetation present and no notable plant species have been recorded within these habitats through various survey effort. The woodland parcels had little ground flora present, and the areas of modified grassland were of poor condition with no notable flora recorded.
- 5.5.2.2 Notable vascular plant species are reasonably discounted from the site.

### 5.5.3 Invertebrates

- 5.5.3.1 The sites woodlands comprise areas of deadwood, alongside a large waterbody and other suitable habitat surrounding the site which are anticipated to provide value to invertebrates at all stages of their lifecycle. The minimal management present on site allows for a varied vegetation structure that will be beneficial to invertebrates.
- 5.5.3.2 Previous survey effort targeting invertebrates (Urban Green, 2025e), found that the wider site harbours a moderately high level of invertebrate fauna, though the vast majority of species are of common and local species. Nine species of nationally significant status were recorded during the survey effort, however five of these species are no longer considered scarce or threatened.
- 5.5.3.3 Notable invertebrates should be considered.

### 5.5.4 Amphibians

- 5.5.4.1 One waterbody is present on site, with two other ponds present within 250m of the site (located within the larger Stairfoot Quarry site).

- 5.5.4.2 The site comprised a mosaic of unmanaged habitats which may provide suitable foraging resources and cover for common amphibians such as common toads. Ornamental water bodies may be located within nearby residential gardens which may provide suitable conditions for breeding common amphibians.
- 5.5.4.3 Great Crested Newt (GCN) surveys (Urban Green, 2025d) were conducted in 2023 comprising eDNA analysis of all three ponds previously identified. Negative results of GCN presence were returned for all three ponds, confirming their absence from the wider site.
- 5.5.4.4 As such, great crested newts are reasonably discounted from the site extent, though common amphibians may be present on site.

### **5.5.5 Reptiles**

- 5.5.5.1 The site provides suitable value to reptiles with a range of habitats present which could provide sufficient sheltering, foraging, and basking opportunities for the species group. The mosaic of woodland, grassland, scrub, disturbed land and waterbodies all present opportunities for reptiles and the areas of bare ground and shingle embankments provide suitable basking potential.
- 5.5.5.2 Previous reptile surveys (Urban Green, 2025f) conducted in 2023 found a 'low-to-good' population of grass snake present within the wider site, utilising the grassland and scrub habitats in particular.
- 5.5.5.3 Grass snake are confirmed present on site.

### **5.5.6 Birds**

- 5.5.6.1 Previous breeding bird surveys (Urban Green, 2025c) conducted in 2023 found the site to support a typical range of common breeding bird species, and the habitats onsite were not considered to support additional species, assemblages of species, or numbers of high conservation interest.

#### **Ground Nesting**

- 5.5.6.2 The site provides suitable habitat for ground nesting birds with various areas of grassland, scrub, woodland, hedgerows and bare ground present on site that offer nesting potential to ground nesting species. A pair of lapwing (*Vanellus vanellus*) were recorded using the Yew Tree Quarry basin during the field survey.
- 5.5.6.3 As such, ground nesting birds may be present on site.

#### **Passerine**

- 5.5.6.4 The site provides suitable habitat for passerine birds with various trees, shrubs, hedgerows and blocks of woodland present on site which are of value to nesting birds. An array of bird species were seen on site during the field surveys including magpie (*Pica pica*), robin (*Erithacus rubecula*), blue tit (*Cyanistes caeruleus*), great tit (*Parus major*), song thrush (*Turdus philomelos*), and wood pigeon (*Columba palumbus*).
- 5.5.6.5 As such, it is confirmed that the site provides nesting potential for passerine birds.

## **Wintering**

- 5.5.6.6 The site offers limited potential to over wintering birds, with no sustainable food source present within the site extent. The site does provide suitable sheltering opportunities but, due to public access of frequent dog walkers, it is anticipated that the level of disturbance present on site would deter over wintering flocks from establishing on site, with more optimal habitat present within the wider area that provide a food source and sheltering opportunities, particularly the areas of arable land to the east and south of the site.
- 5.5.6.7 Over wintering birds are reasonably discounted from the site.

## **Barn owl / Birds of prey**

- 5.5.6.8 The site provides suitable foraging potential to birds of prey, within the parcels of woodland and various trees providing perching value. Trees provide suitable nesting opportunities for traditional stick nest builders such as buzzard (*Buteo buteo*) which were seen foraging on site. No suitable nesting habitat for cavity nesters, such as barn owl, was identified on site.
- 5.5.6.9 As such, birds of prey are confirmed to use the site, however barn owl likely only to use the site for foraging.

## **5.5.7 Bats**

### **Ground Level Tree Assessment**

- 5.5.7.1 A GLTA was completed on all trees located on site and within the survey area. The vast majority of trees within the site extent were relatively young specimens of fast-growing species such as birch, that are single stemmed with no suitable damage or disease that form suitable PRFs.
- 5.5.7.2 However, areas of more well-established woodland with larger, mature trees are present surrounding the site, particularly to the north and south of Yew Tree Quarry. Five trees were identified as providing suitable PRFs in the southeastern block of woodland.
- 5.5.7.3 Please refer to Appendix 3 for more detailed results of the GLTA.

### **Commuting and Foraging Bats**

- 5.5.7.4 The site provides optimal conditions for commuting and foraging bats with a range of habitats on site that will attract invertebrate prey such as woodland, scrub, and a waterbody, as well as linear hedgerow and tree features, that provide 'edge habitat' that is an important resource to foraging and commuting bats. Additionally, the surrounding habitat is highly suitable to support bats and has a high level of connectivity with the site.
- 5.5.7.5 Bat activity surveys (Urban Green, 2025b) were conducted in 2023 and found that the habitats on site and within the wider ownership boundary were of significant value to local populations of bats. A minimum of six bat species were recorded utilising the site and the woodland habitats and areas of standing water, were of particular interest.
- 5.5.7.6 As such, foraging and commuting activity has been confirmed on site, with the woodland habitats and standing water of significance.

### **5.5.8 Hedgehog**

5.5.8.1 The broadleaved woodland and scrub habitats will provide suitable cover and foraging habitats for the species.

5.5.8.2 Hedgehog are potentially present within the site.

### **5.5.9 Water Vole & Otter**

5.5.9.1 Whilst there is a large, naturally fluctuating waterbody on site there is little suitability for both otter and water vole. The waterbody is not hydrologically connected to any other waterbodies or watercourses in the area and has no aquatic vegetation growing within its bounds.

5.5.9.2 Both water vole and otter are reasonably discounted from occurring on site.

### **5.5.10 Badger**

5.5.10.1 No evidence of badger was identified on site during the field survey, though suitable sett building and foraging habitat is present on site and in the immediate vicinity, primarily the woodland parcels and quarry embankments. Additionally, there is a high level of connectivity with the wider landscape.

5.5.10.2 A number of mammal holes (TN1) were identified on site during the field survey; however, they were deemed too small to support badger and rabbit (*Oryctolagus cuniculus*) droppings were present indicating rabbit habitation.

5.5.10.3 Badger are discounted from residing on site, however, may commute and forage within the site.

## **5.6 Invasive Species**

### **5.6.1 Flora**

5.6.1.1 No invasive, non-native species were present on the site at the time of the field survey. However, it should be noted that some invasive non-native plants are very fast spreading and therefore the potential for these species to be introduced to the site at a later date cannot be ruled out.

## 6 Ecological Assessment and Recommendations

### 6.1 Overview

- 6.1.1.1 Urban Green has been instructed by Green Earth Developments Ltd to carry out a Preliminary Ecological Appraisal to British Standard 42020:2013 guidelines at Stairfoot Quarry and produce our findings in a technical report.
- 6.1.1.2 The proposals include the restoration of Yew Tree Quarry, through the infill of non-hazardous excavated soil materials. It is understood that the operation phase of the development will last for approximately 111 weeks and will require the following activities:
- Vegetation removal, including areas of woodland,
  - Breaking of ground,
  - Use of heavy machinery, including ~80 HGV tippers per day,
  - Infill of quarry, and other associated activities
- 6.1.1.3 Following the operational phase of the site, it is understood that the quarry is to be capped, and an ecological restoration scheme be completed.

### 6.2 Designated Sites

- 6.2.1.1 The site is located within the impact risk zone for two SSSIs within the local area, Stairfoot Brickworks SSSI and Dearne Valley Wetlands SSSI. These impact risk zones list developments relating to waste (including inert landfill) as potential impact to the aforementioned designated sites. As such, it is recommended that Natural England are consulted using their discretionary advice service.
- 6.2.1.2 Two non-statutory LWSs are located within 500m of the site boundary. There may be small increase of visitors to the nearby sites. However, based on the size of the scheme and the proposed retention of green space on site, it is anticipated the potential impacts will not be of significance.
- 6.2.1.3 Therefore, it is recommended that a detailed Precautionary Method of Works (PMoWs) document is produced in advance of any construction works beginning on site, with a specific chapter on designated sites.

### 6.3 Habitats

- 6.3.1.1 The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats, birds, and terrestrial mammals. The broadleaved woodland and scattered broadleaved trees are of highest value, though the buildings may provide suitable roosting opportunities for bats.

#### 6.3.2 Broadleaved Woodland and Trees

- 6.3.2.1 The area of woodland adjacent the eastern boundary of the site qualify as habitat of principal importance under Section 41 of the NERC Act (2006) and is highlighted as priority habitat on MAGIC.

- 6.3.2.2 No direct impacts are anticipated to impact this block of woodland, though there is potential for indirect impacts without appropriate consideration.
- 6.3.2.3 Additionally, It is understood that the proposed works require the removal of a linear strip of woodland approximately 0.15 hectares in area, as detailed within the associated Arboricultural Impact Assessment (Urban Green, 2025a). This parcel of woodland does not qualify as habitat of principal importance. However, potential impacts should still be considered.
- 6.3.2.4 Therefore, the previously recommended PMoWs document should include a chapter on woodland habitat, covering areas of woodland both on site and adjacent.

### **6.3.3 Open Mosaic Habitat**

- 6.3.3.1 An area of Open Mosaic Habitat is located within the site extent, forming the proposed access track. This habitat extends outside of the site boundary into the surrounding area to the east and as such the on-site habitat forms only a small area of the total habitat present. Additionally, it has been assessed that this is a poor example of this habitat type, with limited botanical diversity present.
- 6.3.3.2 As the proposals for the site require the regular movement of Heavy Goods Vehicles along the access road to the quarry basin, it is anticipated that this habitat will be lost within the site boundary, through formalisation of the access road and regular disturbance through the operation phase.
- 6.3.3.3 As such, suitable compensation should be provided within the associated Biodiversity Net Gain Assessment either through the creation of new habitat on-site or off-site, or through the acquirement of off-site habitat bank credits.
- 6.3.3.4 The previously recommended PMoWs document should also include a chapter on Open Mosaic Habitat, detailing mitigation measures to negate impacts on similar habitat adjacent to the site.

### **6.3.4 Ponds**

- 6.3.4.1 Waterbodies that meet any of the criteria listed in the UK Biodiversity Action Plan in relation to ponds also qualify as habitats of principal importance under Section 41 of the NERC Act (2006).
- 6.3.4.2 Part of this criteria requires a waterbody to support species listed on Section 41 of the NERC Act (2006) or on Schedule 5/8 of the Wildlife and Countryside Act (1981) in order to qualify.
- 6.3.4.3 Based on previous survey work conducted on site it is known that grass snake are present within the wider survey area and bats regularly use the south-eastern corner of Yew Tree Quarry for foraging purposes.
- 6.3.4.4 As such, the waterbody on site qualifies as a habitat of principal importance.
- 6.3.4.5 Therefore, the previously recommended PMoWs document should include a chapter on ponds. Additionally, the post development design for the site should seek to replace the loss of standing water on site through the creation of new pond habitats.

## 6.4 Fauna

### 6.4.1 General

6.4.1.1 There are a number of species and groups that could occur on site, and adjacent, that receive varying levels of protection under wildlife legislation. These species and groups include:

- Common amphibians,
- Common nesting bird species,
- Commuting and foraging bats,
- Reptiles
- Hedgehog and other small mammals, and
- Badger

6.4.1.2 To mitigate for this, the previously recommended PMoWs document should include chapters covering the aforementioned species and groups.

### 6.4.2 Previous survey work

6.4.2.1 As detailed in Section 3, a range of further survey work was completed on site in 2023, covering:

- Invertebrates,
- Great crested newts,
- Reptiles,
- Breeding birds, and
- Commuting and foraging bats

6.4.2.2 These surveys covered the larger Stairfoot Quarry site, which included the proposed development site and all surrounding land within the ownership boundary of Green Earth Developments Group Ltd. As the site was found to be relatively unchanged since the previous PEA was conducted in 2023, the validity of the survey data associated with the above survey work is believed to be valid until May 2026.

6.4.2.3 As such, the recommendations detailed in the associated reports should be implemented accordingly. However, after this time an ecologist should be consulted to discuss the possibility of updating the survey effort.

### 6.4.3 Bats

#### Roosting Bats

6.4.3.1 As stated in Section 5.5.7, A GLTA was completed on all trees on site and within the surrounding survey area.

6.4.3.2 Five trees were identified as providing suitable PRFs, located offsite but within the defined survey area, in the southern block of woodland.

- 6.4.3.3 All bat species are designated as European Protected Species (EPS) under the Conservation of Habitats and Species Regulations (2017), as well as receiving protection under the WCA (1981).
- 6.4.3.4 This means that bats and their roosts are protected, and, in the context of the proposed development, it is an offence to:
- Kill or injure individual bats,
  - Destroy their roosts, and
  - Disturb bats while occupying a roost
- 6.4.3.5 As no trees with suitable roosting features are present within the site extent, potential impact pathways are restricted to disturbance of roosting bats throughout the active construction period. Of the trees with suitable roosting potential within the survey area, the closest (T5) is located approximately 20m from the site boundary and located within a mature, longstanding woodland.
- 6.4.3.6 It is anticipated that the 20m buffer from these potential roosting features is a suitable distance to the proposed works at their closest point, that no further survey work in relation to roosting bats is required. However, the PMoWs document should include a chapter on roosting bats, particularly related to works at the southern end of Yew Tree Quarry.

## 7 Opportunities for Enhancement

7.1.1.1 The National Planning Policy Framework (NPPF) (2024) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment.

7.1.1.2 Paragraph 187 states that this should be achieved by (in terms of this assessment only):

- a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*

7.1.1.3 Optional enhancement recommendations for the site include the following:

- Bat and bird boxes could be installed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by an ecologist once the layout is finalised. This would increase the carrying capacity of roosting bats and nesting birds on the site.
- Creation of reptile refugia on the site where practicable; arisings from any tree felling works should be used where feasible.
- Installation of invertebrate hotels/bug hotels on site to increase the carrying capacity of invertebrates on the site.

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## Appendix 1 - Relevant Legislation

### Legislation relating to European Protected Species (e.g. bats, otter, great crested newt)

European Protected Species and their resting places (e.g. bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

### Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

### Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
  - to survive, to breed or reproduce, or to rear or nurture their young, or;
  - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a SoPI under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

## Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

## Legislation relating to reptiles

All native reptile species have some degree of protection in the UK, through section 9(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). There are two different levels of protection afforded to reptiles through this legislation according to species and this is described in more detail below.

### *Full Protection*

Sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are afforded protection under The Conservation of Habitats and Species Regulations 2010 (are species of European importance) and are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act (2000). The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. The relevant sections of this legislation make it an offence to:

- Intentionally kill, injure or capture or take a reptile;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a reptile;
- Disturb whilst the reptile is occupying such a structure or place; and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Sand lizard and smooth snake are listed as a SoPI under Section 41 of the NERC Act 2006.

### *Protection against killing, injuring and trade*

This level of protection under section 9 (parts 1 and 5) applies to the four widespread species of reptile, namely the common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and adder (*Viper berus*). Only part of sub-section 9(1) applies, which make it an offence to:

- Intentionally kill or injure, and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Grass snake, slow-worm and adder are all listed as SoPI under Section 41 of the NERC Act 2006.

## Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (*Falco peregrinus*), barn owl (*Tyto alba*), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

### *Conservation status - Birds of Conservation Concern (Eaton et al. 2015)*

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2011. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria): Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

## Legislation relating to badger

Badgers are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett; and
- disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

### **Legislation relating to invasive plant species**

Several non-native invasive plant species such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel (*Lamiastrum galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed (*Reynoutria japonica*) are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to ‘...plant or otherwise cause the species to grow in the wild’. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it an offence to sell, offer or expose for sale, or to have in one’s possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a ‘duty of care’ on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.

## Appendix 2 – UK Habitat Classification Codes

Hierarchical code	Code	Meaning
Primary Code	g4	Modified grassland
	h2a6	Other native hedgerow
	h3h	Mixed scrub
	r1g	Other standing water
	u1b6	Other developed land
	u1f	Sparsely vegetated urban land
	w1g	Other broadleaved woodland
Secondary Code	10	Scattered scrub
	11	Hedgerow with trees
	16	Tall forbs
	30	Semi-natural woodland
	31	Secondary woodland
	33	Line of trees
	40	Ponds (priority habitat)
	47	Freshwater – natural
	80	Open mosaic habitats on previously developed land
	81	Ruderal or ephemeral
	82	Vacant or derelict land
	510	Bare ground
	518	Neglected
	522	Native

## Appendix 3 – Ground Level Tree Assessment

Tree (T) Reference	Details	Category of suitability
T1	<p>Tree 1 was a mature beech, located at grid reference SE 38220 05029.</p> <p>A single hazard beam feature was present at approximately 5m on the northwestern aspect of the tree. The feature was located on a lower limb and appeared to open up into an extended cavity within the limb, potentially suitable for roosting bats.</p> <p>See Photographs 13 and 14.</p>	PRF
T2	<p>Tree 2 was a mature oak, located at grid reference SE 38225 05033.</p> <p>Two PRF features were present, detailed below:</p> <p>PRF-A – A woodpecker hole on the southern aspect at approximately 7m entering a potential suitable cavity for roosting bats.</p> <p>PRF-B – A tear out on the northern aspect at approximately 7m entering a potential suitable cavity for roosting bats.</p> <p>See Photographs 15, 16, and 17.</p>	PRF
T3	<p>Tree 3 was a mature oak located at grid reference SE 38239 05032.</p> <p>A single knot hole feature was present on the northern aspect at approximately 7m. The feature was located on the main stem and was upturned restricting visibility of the feature from the ground.</p> <p>See Photographs 18 and 19.</p>	PRF
T4	<p>Tree 4 was a mature beech located at grid reference SE 38289 05087.</p> <p>A single stem cavity feature was present, located at approximately 0.75m on the southern aspect of the tree. The PRF could be inspected from ground level and was observed to extend upwards into a suitable cavity that extended a suitable distance into the stem. This feature was deemed suitable to support a maternity group of bats.</p> <p>See Photographs 20 and 21.</p>	PRF-M
T5	<p>Tree 5 was a mature oak, located at grid reference SE 38322 05113.</p> <p>Two PRFs were identified and are detailed below:</p> <p>PRF-A – A woodpecker hole on the northern aspect at approximately 10m entering a potentially suitable cavity.</p> <p>PRF-B – A tear out at approximately 4m on the south-eastern aspect of the main stem, entering a potentially suitable cavity.</p> <p>See Photographs 22, 23, and 24.</p>	PRF