

WHARTON

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Preliminary Ecological Appraisal

SITE LOCATION

Woodland south of Hollingworth
Lake, High Ropes

PREPARED FOR

Rochdale Borough Council

ISSUE DATE

13 April 2022

OUR REFERENCE

220111 1340A PEA DRAFT

PRINCIPAL AUTHOR

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Preliminary Ecological Appraisal

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Summary	
Site surveyed	Woodland south of Hollingworth Lake National Grid reference SD 93762 14689
Purpose and brief	Preliminary Ecological Appraisal Commissioned by Rochdale Borough Council
Development proposals	The Proposed Development is the construction of a high ropes course within the woodland south of Hollingworth Lake using the clearing where possible.
Methods	Desk study UK Habitat Classification (UKHab) survey of the Site Assessment of likely significant effects as far as can be reasonably known.
Confirmed ecological constraints	None
Potential ecological constraints	Impacts on mature trees and Habitat of Principal Importance (HPI) Nesting wild birds Non-Statutory Sites Invasive species Commuting and foraging bats
Recommendations/ Further survey works required	Ground guards to prevent root compaction DEFRA metric – Biodiversity Assessment Invasive species management
Opportunities for ecological enhancement	Hedgehog shelters Bird boxes Native species planting



1. Introduction/Background

1.1 Author

- 1.1.1 The Principal Author of this report is Laura Carter BSc (*Hons*) (Ecologist). The Principal Author has over three years of professional experience in ecological consultancy and has worked on projects ranging in scale including commercial and residential sites. The Principal Author currently holds a Class 1 survey licence from Natural England for bats (*Chiroptera* spp.) and is a Qualifying member of the Chartered Institute of Ecology and Environmental Management ('CIEEM'), she is therefore subject to CIEEM's Code of Professional Conduct.
- 1.1.2 The detail provided within this report is a true and accurate reflection of both the Site conditions at the time the survey was completed, as well as the professional opinion of the Principal Author.

1.2 Purpose and Brief

- 1.2.1 Rochdale Borough Council (the Client) commissioned Wharton Natural Infrastructure Consultants Ltd ('Wharton') to undertake a Preliminary Ecological Appraisal ('PEA') of an area of land known as woodland south Hollingworth Lake (see land within the red line boundary on Appendices 1 and 2), known herein as 'the Site'.
- 1.2.2 The purpose of the PEA (as per CIEEM guidance (CIEEM, 2018)) is to inform the design of the Proposed Development. The key objectives of a PEA are to:
- Identify the likely ecological constraints associated with the Proposed Development.
 - Identify any mitigation measures likely to be required, following the '*Mitigation Hierarchy*'.
 - Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EIA); and,
 - Identify the opportunities offered by the Proposed Development to deliver ecological enhancement.

1.3 Description of Site and Local Area

- 1.3.1 The Site is located to the south of Hollingworth Lake and west of Rakewood Road in Littleborough. It is centred approximately at National Grid reference SD 93762 14689.
- 1.3.2 The Site comprised a broad-leaved woodland areas of dense canopy cover with an area of other neutral grassland present in the clearings. Public footpaths and Hollingworth lake were present to the east and north of the Site at c35m and c100m respectively. The Site is bordered to the south by woodland and further areas of grassland with access roads and footpaths.
- 1.3.3 Land use in the immediate and wider areas is a mix of residential and commercial land use. The Site is relatively well connected from an ecological perspective due to grassland and woodland throughout the local area.
- 1.3.4 Wildlife corridors are present in the local area, such as the River Roch c.1km northwest of the Site. There is good ecological connectivity to/from the Site. The woodland at the Site contributes to peripheral connectivity around Hollingworth Lake the Site itself does not contribute to the functionality of the wildlife corridors.

1.4 The Proposed Development

- 1.4.1 The Proposed Development is the construction of a high ropes course erected on posts and situated to utilise the existing clearing where possible, the ground substrate will comprise pea gravel.



1.4.2 The proposals detailed above will be referred to throughout this report as the 'Proposed Development'.

2. Relevant Planning Policy & Legislation

2.1 Relevant Legislation

2.1.1 National and international legislation relevant to the Proposed Development is summarised below in Table 1.

Table 1. Legislation Relevant to the Proposed Development

Legislation*	Relevance to the Proposed Development
The Conservation of Habitats and Species Regulations 2017 (HMSO, 2017) <i>Amended by¹</i> The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (HMSO, 2019)	Affords protection to species listed under Schedules 2 and 5 and gives provision for the allocation and protection of European protected sites.
The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981)	Affords protection to species listed under Schedule 5 of the Act and gives provision for the allocation of statutory wildlife sites.
The Natural Environment and Rural Communities (NERC) Act 2006 (HMSO, 2006)	Places a duty on planning authorities to consider habitats and species of principal importance in planning applications.
The Protection of Badgers Act 1992 (HMSO, 1992)	Offences under the Act include damaging, destroying or obstructing access to a badger sett, disturbing a badger when it is occupying a badger sett, and killing or injuring a badger.

*Full legislative text should be referred to as table text is a summary only.

1 - The Conservation of Habitats and Species Regulations 2017 provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas now the UK has left the European Union.



2.2 Relevant Planning Policy

2.2.1 Planning policies which are relevant to the Proposed Development are summarised below in Table 2.

Table 2. Planning Policy Relevant to the Proposed Development

Planning Policy	Relevance to the Proposed Development
National Planning Policy Framework (Department for Communities and Local Government, 2021)	National Planning Policy Framework section 174 states that planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure. Section 179 of the NPPF states that to protect and enhance biodiversity, plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity. Plans should also promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity. Section 180a and 180c (respectively) of the NPPF state: <i>"if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts) adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused".</i> <i>"Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists."</i>

*Full policy text should be referred to as table text is a summary only.

2.2.2 The Rochdale Adopted Core Strategy (Rochdale Borough Council, 2016) has been reviewed and an excerpt of the relevant ecological policies is provided in Appendix 3.



3. Methods & Methodology

3.1 Desk Study & Consultation

- 3.1.1 A desk study was carried out to gather background ecological data, and the following resources were used for the data search:
- Multi Agency Geographic Information for the Countryside (MAGIC) Interactive (DEFRA, 2021) map was used to determine the presence of granted European Protected Species Mitigation Licences ('EPSML') at and within 500m of the Site.
 - Google Earth Pro (Google Earth Pro, 2021) aerial and historic imagery were used to assess the ecological connectivity at the Site as well as its historic use to assess the suitability of habitats locally for foraging and commuting wildlife.
 - Biological records have been obtained from Greater Manchester Record Centre (GMRC, 2021) from a 1km radius of the central grid reference provided in paragraph 1.3.1, for statutory wildlife sites, non-statutory wildlife sites and legally protected and notable species.

3.2 Field Survey

- 3.2.1 A UK Habitat Classification (UKHab) survey (comprising the methods detailed below) was carried out on 22nd September 2021 by the Principal Author.
- 3.2.2 Weather conditions at the time of survey were dry and clear.

3.3 UK Habitat Classification (UKHab) Survey

- 3.3.1 A UK Habitat Classification (UKHab) Survey (Butcher, Carey, Edmonds, Norton, & Treweek, 2020) was carried out at the Site and provides a comprehensive habitat classification system for the UK. UKHab enables details in relation to the presence of notable (such as Habitats of Principal Importance) or protected habitats (such as Annex I habitats) to be obtained.
- 3.3.2 The UK Habitat Classification Version 1.1 was used for assessment of the Site, using the *Professional Edition Hierarchy*. Habitats were classified to Level 5 unless otherwise stated.
- 3.3.3 In addition to the UKHab survey, an assessment of the Site for evidence of/suitability for protected/notable species was undertaken. Please note that these surveys are not comprehensive or targeted and are simply intended to allow an informed decision to be made on whether further more detailed surveys for a particular species or species group are required.
- 3.3.4 Species of specific interest that were surveyed for include but are not limited to:
- Badger (*Meles meles*),
 - Bats (*Chiroptera* spp.),
 - Great crested newt (GCN) (*Triturus cristatus*) and other amphibians,
 - Hedgehog (*Erinaceus europaeus*),
 - Invertebrates,
 - Hazel dormouse (*Muscardinus avellanarius*),
 - Reptiles,
 - Otter (*Lutra lutra*),
 - Water vole (*Arvicola amphibius*),



- White-clawed crayfish (*Austropotamobius pallipes*),
- Wild birds, and
- Protected plants.

3.3.5 Habitats at the Site were identified and mapped; they are illustrated on the UK Habitat Classification Plan at Appendix 2. Where appropriate, target notes have been used to identify areas on the plan that require further detail, and this has been included in the report.

3.3.6 Plant names (common and scientific) within this report follow 'New Flora of the British Isles' (Stace, 2010).

3.4 Preliminary Roost Assessment ('PRA')

3.4.1 The PRA and subsequent assessment of suitability of trees at the Site for roosting bats followed current best practice guidance (Collins, 2016).

3.4.2 The trees were inspected at ground-level by the Principal Author (who holds a Natural England Class 1 bat licence) for field evidence of bats including: droppings, individual bats (live or dead), feeding remains, scratch marks, urine staining, grease marks and clean cobweb-free gaps around potential entrance points and crevice roost sites.

3.4.3 The trees were classified according to the criteria set out in Table 3 below in accordance with standard guidance (Collins, 2016). With respect to roost type, the assessments in this report are made irrespective of species conservation status, which is established after presence is confirmed.

Table 3. Bat Roost Suitability Descriptions (taken from Collins, 2016)

Suitability	Description of Roosting Habitats
Confirmed Presence	Presence of roosting bats within a tree confirmed by the survey
High	A tree with one or more potential roost Sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low	A tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e., unlikely to be suitable for maternity or hibernation).
Negligible	Trees that appear unsuitable for roosting bats due to a clear lack of roosting spaces and/or absence of suitable access points, such as voids, small crevices etc, cracked limbs, rot holes, woodpecker holes, limb tear outs etc.

3.5 Limitations and Caveats

3.5.1 This report is based solely on the Site conditions on the 22nd September 2021 and provides a 'snapshot' of Site conditions at this time only.

3.5.2 The survey was not undertaken within the optimal period to assess woodland flora. This limitation is not considered to be significant as the Site and surrounding area is subjected to regular



recreational use and the woodland understorey comprised *Rhododendron* sp which would outcompete native ground flora.

3.6 Evaluation of Ecological Features

- 3.6.1 The potential of the Site to support legally protected or notable species was determined through a review of field observations and desk study information.
- 3.6.2 The likelihood of the occurrence of any protected and/or invasive species is ranked as follows and relies on habitat suitability for the species at the Site as well as an evaluation, in parallel, of desk study data and published guidance/literature which is referenced accordingly:
- **Negligible** – while presence cannot be absolutely discounted, the Site supports very limited or poor-quality habitat for a species or species group. There may be no local records of the species/species group from the data search, and the surrounding habitats are considered unlikely to support wider populations of a species/species group. The Site may also be outside or peripheral to the known natural range of a species/species group.
 - **Low** – habitats within the Site are of poor to moderate quality for a given species/species group. There are few or no returns from the data search, but presence cannot be discounted based on the national distribution of the species/species group, the nature of surrounding habitats, habitat fragmentation or recent on-Site disturbance, etc.
 - **Medium** – habitats within the Site are of moderate quality providing some opportunities for a given species/species group. The desk study reveals historic local occurrence of the species/species group, and the Site is within the national distribution and with suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat isolation, and/or disturbance.
 - **High** – habitats within the Site are of high quality for a given species/species group. The desk study provides evidence of local occurrence. The Site may be within/peripheral to a national or regional stronghold and/or has good quality surrounding habitat and good connectivity.
 - **Confirmed Presence** – presence confirmed from the most recent Site survey or by recent, confirmed records.
- 3.6.3 The CIEEM EcIA guidelines (CIEEM, 2018) state that "*the importance of an ecological feature should be considered within a defined geographical context*". The suggested frames of reference within the CIEEM EcIA guidelines have been appropriately adapted, appropriate to the Site and Proposed Development. These frames of reference are:
- International and European
 - National (England)
 - Regional (Northwest)
 - County (Greater Manchester)
 - Borough (Rochdale)
 - Parish (Littleborough)



4. Ecological Baseline and Assessment of Impacts and Effects

4.1 Zone of Influence

- 4.1.1 The Zone of Influence (Zol) for the Proposed Development is the area within which significant ecological impacts could occur to ecological features.
- 4.1.2 The Zol differs for each ecological feature, and the Zol has been clearly stated in the baseline assessment of each ecological feature below.
- 4.1.3 The Zol has been stated for every ecological feature except those where there is clearly a lack of suitable habitat at or adjacent to the Site, and therefore no pathways by which impacts could occur to the feature.
- 4.1.4 Where a Zol has been provided for a species that has subsequently been scoped out of further assessment, the Zol relates to the area considered as part of the initial scoping assessment for that ecological feature (i.e., the area within which potential impacts to the feature have been considered).

4.2 Statutory Wildlife Sites

Zol

- 4.2.1 The Zol for statutory wildlife sites is considered to be 500m from the Site boundary. This is due to the ecological connectivity of the Site to the wider area and the limited geographical range of impacts from the operational phase of the Site to the local area (such as recreational purposes).

Baseline and Assessment of Impacts and Effects

- 4.2.2 There are no statutory wildlife sites within 500m of the Site.

Recommendation

- 4.2.3 No further survey or assessment regarding statutory wildlife sites is required and no significant effects to statutory wildlife sites are likely to arise as a result of the Proposed Development.

4.3 Non-Statutory Wildlife Sites

Zol

- 4.3.1 The Zol for non-statutory wildlife sites is considered to be 500m from the Site boundary. This is due to the ecological connectivity of the Site to the wider area and the limited geographical range of impacts from the operational phase of the Site to the local area (such as recreational purposes which already exist within the Site).

Baseline and Assessment of Impacts and Effects

- 4.3.2 There is one non-statutory sites within 500m of the Site which was a Site of Biological Importance (SBI).

Hollingworth Lake and surrounds SBI

- 4.3.3 This site is a 54ha area c.30m west of the Site at its closest point, comprising a lake, broad-leaved woodland, scrub, flush, and fen.
- 4.3.4 The waterbody is important for a variety of birds such as reed bunting (*Emberiza schoeniclus*), mallard (*Anas platyrhynchos*), moorhen (*Gallinula chloropus*) and Canada goose (*Branta canadensis*). Wintering species include goosander (*Mergus merganser*), teal (*Anas crecca*), goldcrest (*Regulus regulus*), whooper swan (*Cygnus cygnus*), mute swan (*Cygnus olor*), siskin (*Carduelis spinus*), lesser redpoll (*Acanthis cabaret*), fieldfare (*Turdus pilaris*) and redwing (*Turdus iliacus*).



- 4.3.5 The Site is already used for public recreation with boating activities on the lake and public footpaths all the way around. There may be an increase in recreational pressure from the Proposed Development, however this is unlikely to be significant in the wider context of the Site due to its current use for recreational activities, which are actively managed.
- 4.3.6 The impact from surface water runoff and pollution during the construction phase of the Proposed Development is considered unlikely due to the small scale of the Proposed Development and the distance from the lake to the Site, due to the size of the Proposed Development a proportionate approach has been recommended.

Recommendations

- 4.3.7 A precautionary approach should be taken by the provision of an on-Site spill kit during works to reduce the potential for indirect adverse effects associated with surface water run off to a negligible level. A full Construction and Environmental Management Plan (CEMP) is not considered to be necessary for the Proposed Development in relation to surface water runoff due to the negligible risk.

4.4 Habitats

- 4.4.1 A plan of the habitats detailed below is provided at Appendix 2.
- 4.4.2 The assessment of importance within section 4.3.2 relates solely to the botanical importance of habitats at the Site. It does not take use or possible use by protected species into account as this is addressed within section 4.6.
- 4.4.3 All tree numbers mentioned within this report are consistent with those detailed within 220104 1340 AIA V1.

ZoI

- 4.4.4 The ZoI for habitats in relation to the Proposed Development is the habitats within the Site boundary and those immediately adjacent. This is because adjacent habitats are of similar composition and impacts to adjacent habitats as likely similar result of the Proposed Development.

Woodland – Lowland mixed deciduous woodland- w1f7

Baseline and Assessment of Impacts and Effects

- 4.4.5 The woodland on Site comprised an area of dense canopy cover and other, more open areas. The canopy was dominated by pedunculate oak (*Quercus robur*), common beech (*Fagus sylvatica*) and sycamore (*Acer pseudoplatanus*). Occasional red maple (*Acer rubrum*), silver birch (*Betula pendula*) and Austrian pine (*Pinus nigra var nigra*). There were areas of clearings within the woodland where breaks in the canopy cover were also present and the Proposed Development has been designed to utilise these clearings where possible.
- 4.4.6 Lowland mixed deciduous woodland is a Habitat of Principal Importance (HPI). The woodland on Site supports many mature tree specimens within the canopy layer. Invasive species management had been undertaken within the woodland for *Rhododendron* sp. The ground flora species were largely absent due to being outcompeted by *Rhododendron* sp that was present throughout the woodland.
- 4.4.7 Although the Site qualified as a HPI, the condition of the habitat was not considered to be a good example of this Habitat type. This was due to significant encroachment by invasive species and a poorly developed ground layer from recreational pressure and being outcompeted and over shaded by the *Rhododendron* sp throughout the woodland.
- 4.4.8 It is understood that the Development has been strategically placed within a clearing to enable



the majority of trees to be retained as a part of the Proposed Development. The movement of plant machinery around the Site and the wider woodland for the installation of the high ropes posts has the potential to cause damage to the root systems of existing trees via root compaction therefore precautionary measures have been recommended.

- 4.4.9 There are two trees to be removed as part of the Proposed Development these comprise T11 and T10. In addition, canopy reduction to groups G8 and G9 has also been recommended within the Arboricultural Impact Assessment 220104 1340 AIA V1 by Wharton to facilitate the Proposed Development.
- 4.4.10 T10 is a semi-mature silver birch and T11 is a mature sycamore tree, both trees are not considered to be ecologically important in their own right. The wider woodland supports many mature and semi-mature trees and the removal of T10 and T11 is therefore not considered likely to result in a significant ecological effect as there is sufficient regeneration and structural diversity within the woodland to naturally compensate for this loss in the long term, as well as many established mature and semi-mature specimens of the same species.
- 4.4.11 G8 and G9 are both early mature groups of sycamore, beech, holly and pedunculate oak again providing botanical and structural diversity to the Site. These early mature specimens were considered ecologically valuable up to the Site level. A canopy reduction has been recommended on these trees within the Arboricultural impact assessment (Ref 220104 1340 AIA V1 by Wharton) to facilitate the Proposed Development within the Site therefore no complete specimen loss would occur and no significant ecological effect at or above the local level is likely to occur.
- 4.4.12 It must however be acknowledged that the Proposed Development will result in a loss of HPI and tree cover which will require compensation in the local area to achieve biodiversity net gain. The area of compensation habitat will need to be assessed through completion of DEFRA's biodiversity metric, and due to the scale of the Proposed Development in relation to the Site will likely require off-site compensation, which could include enhancements to the surrounding woodland under the same ownership as the Site.

Other Neutral Grassland – gc3

Baseline and Assessment of Impacts and Effects

- 4.4.13 The grassland comprised the understorey habitat to the woodland as well as a standalone habitat within the clearings at the Site. This field layer and open clearings had areas of sparse vegetation resulting from the intense shade cast by the dominant canopy.
- 4.4.14 Species comprised annual meadow grass (*Poa annua*), occasional cock's foot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*). Forb species included common nettle (*Urtica dioica*), dandelion (*Taraxacum* agg.), ground ivy (*Glechoma hederacea*) and daisy (*Bellis perennis*).
- 4.4.15 The grassland is not considered to be ecologically important due to the small extent of the habitat along with the presence of nutrient tolerant species within the shade cast areas beneath the trees.
- 4.4.16 The majority of the grassland is likely to be lost as a result of the Proposed Development and replaced by pea gravel, this loss will not result in a significant ecological effect.

Recommendations

- 4.4.17 All retained trees should be protected appropriately throughout the construction phase in accordance with the Arboricultural Impact Assessment 220104 1340 AIA V1 by Wharton.
- 4.4.18 The movement of plant machinery around the Site has the potential to cause damage to the root systems of existing and retained trees via root compaction, to avoid this impact ground guards



should be used to reduce root compaction throughout the surrounding area and the Site in accordance with the Arboricultural Impact Assessment 220104 1340 AIA V1 by Wharton

4.5 Biodiversity Net Gain

- 4.5.1 To achieve a net gain for biodiversity, it is recommended that an area within the woodland surrounding the Site is enhanced for biodiversity. This includes the measures detailed within Section 5 to remove invasive species from the Site and encourage native shrub planting to follow the removal of the Rhododendron.
- 4.5.2 DEFRA's biodiversity metric may be required to quantify the loss of the woodland through the Proposed Development with compensation likely required and secured through an ecological management plan detailing offsite compensation planting or enhancement through management.

4.6 Species Baseline and Assessment of Impacts and Effects

- 4.6.1 Biological records have been provided by Greater Manchester Record Centre (GMRC, 2021). The data is licensed for use by Wharton and the Client for a 12-month period, it is not owned by Wharton, or the Client and ownership of the data remain with the data provider.
- 4.6.2 Please note that all data from pre-1996 (25+ years) has been filtered from the data search as data of this age and older is unlikely to be significant to the Proposed Development.
- 4.6.3 Where a species/species group has been scoped out of further assessment below, no significant effects (adverse or otherwise) to this species are anticipated as a result of the Proposed Development, and no legislative breach in respect of the species legal protection is anticipated.

Badger

Zol

- 4.6.4 The Zol for badger is considered to be the Site and within 30m of the boundary. No important habitats for badger are considered to be affected outside of the Site boundary by the Proposed Development, and the 30m buffer caters for damage to tunnels and disturbance of badger during the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.6.5 There were no records for badger recorded within a 1km radius from the last 25 years. There was a historical record for badger recorded on Site in 1981.
- 4.6.6 No evidence of badger was identified at the Site or within 30m of the boundary. A historic record shows a badger sett in close proximity to the Site, however, during the survey in 2021, there was no evidence of this sett.
- 4.6.7 An active rabbit warren was present south of the Site, activity was confirmed with rabbits seen using the warren at the time of the survey.
- 4.6.8 It is possible based on historical records and the local area that badger may on occasion commute through the Site to/ from the wider landscape, however it is unlikely on the basis of the nature of the Proposed Development that badgers will be affected by the works.
- 4.6.9 No large excavations are required for the Proposed Development, no setts are present within 30m of the boundary therefore the likelihood of badgers being affected by the Proposed Development is considered low.
- 4.6.10 The risk of a breach of legislation in respect of badger from the Proposed Development is considered to be negligible.



Bats

ZoI

- 4.6.11 The ZoI for bats is considered to be the Site only. No important habitats for bats are considered to be affected outside of the Site boundary by the Proposed Development.

Baseline and Assessment of Impacts and Effects - Commuting and Foraging Habitat

- 4.6.12 There are 196 records for commuting and foraging bats within 2km of the Site between 1996 and 2019. Species include:
- Common pipistrelle (*Pipistrellus pipistrellus*)
 - Soprano pipistrelle (*P. pygmaeus*)
 - Daubenton's bat (*Myotis daubentonii*)
 - *Myotis* sp
 - Nathusius' pipistrelle (*P. nathusii*)
 - Noctule (*Nyctalus noctula*)
- 4.6.13 The closest record was for common pipistrelle c.0.2km northwest of the Site.
- 4.6.14 The woodland at the Site provides suitable foraging habitat for bats both at the canopy and woodland edge, with additional foraging areas noted within the wider landscape including Hollingworth Lake.
- 4.6.15 Suitable foraging habitat is also present in the surrounding grassland and woodland areas, and the Site has good connectivity to these grassland and tree lines adjacent to the Site.
- 4.6.16 The Proposed Development will involve the removal of a small area of tree cover including T11, T10 and, canopy reduction of G8 and G9 which is unlikely to adversely affect the remaining suitable foraging habitat surrounding the Site. The removal of the short sward grassland for pea gravel is not considered likely to result in a significant effect to commuting or foraging bats.
- 4.6.17 No additional lighting is proposed through the Proposed Development.
- 4.6.18 No fragmentation effect is considered likely to arise as a result of the Proposed Development.
- 4.6.19 The mesh proposed to be used as part of the Proposed Development is of a size and thickness considered sufficient to prevent entanglement to bats (45mm mesh with 5mm diameter netting)
- 4.6.20 The Site is not likely to be ecologically important for foraging or commuting bats due to the small scale of the Site itself. Bats are likely to use the Site while foraging in the wider area, however due to the small scale of the development and area of tree removal and pruning to facilitate the Proposed Development, no significant effects (adverse or otherwise) to commuting or foraging bats are anticipated as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects - Roosting Habitat

- 4.6.21 There are 37 records for bat roosts within 2km of the Site between 1996 and 2019. Species include:
- Common pipistrelle
 - Daubenton's bat
 - Soprano pipistrelle
 - Whiskered/ Brandt's bat (*Myotis mystacinus /brandtii*)
- 4.6.22 The closest record was for pipistrelle species c.0.3km south of the Site.



4.6.23 No buildings are present at the Site.

4.6.24 Trees proposed for removal as part of the Proposed Development the Site have negligible suitability for roosting bats, no suitability for or evidence of roosting bats was identified during the PRA of trees at the Site.

4.6.25 The Site is unlikely to be ecologically important for roosting bats owing to the lack of potential roosting features.

GCN and other Amphibians

Zol

4.6.26 The Zol for GCN is the Site and ponds within 250m of the Site, this is due to the small size of the Site and limited impacts to suitable habitats from the Proposed Development.

4.6.27 The Zol for other amphibians is the Site only.

Baseline and Assessment of Impacts and Effects

4.6.28 There are two records for GCN within 2km of the Site. Both records were c.1.3km southwest of the Site in 2017.

4.6.29 The Site had low suitability for amphibians due to the short sward height of the woodland understory providing limited foraging and sheltering opportunities. The loss of the short sward height grassland as part of the Proposed Development was not considered to be significant, suitable habitat for amphibians including GCN.

4.6.30 The only waterbody within 250m of the Site (DEFRA, 2021) (Google Earth Pro, 2021) is Hollingworth Lake which is a large waterbody regularly disturbed by boating and other recreational activities all run from the boat house adjacent to the Site.

4.6.31 It is therefore unlikely that amphibians, including GCN, will be adversely affected by the Proposed Development, and the Site is not likely to be ecologically important for amphibians.

Hedgehog

Zol

4.6.32 The Zol for hedgehog is considered to be the Site only as this is the only likely area where impacts to hedgehog may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.33 There are 13 records for hedgehog within 2km of the Site between 2009 and 2020. The closest record was c.0.1km northeast of the Site.

4.6.34 The Site had low suitability for foraging and shelter habitat for hedgehog due to the short sward height of the grassland and the scattered woodland understory providing limited foraging and sheltering opportunities.

4.6.35 It is unlikely that hedgehog are present at the Site and therefore impacts to hedgehog are considered to be unlikely.

Invertebrates

Zol

4.6.36 The Zol for invertebrates is considered to be the Site only as this is the only likely area where impacts to invertebrates may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.37 There are 180 records for invertebrates within 2km of the Site. Species include:



- Autumnal rustic (*Eugnorisma glareosa*)
- Blood vein (*Timandra comae*)
- Buff ermine (*Spilarctia luteum*)
- Cinnabar (*Tyria jacobaeae*)
- Common carpet (*Epirrhoe alternata*)
- Dot moth (*Melanchra persicariae*)
- Grey dagger (*Acronicta psi*)
- Knot grass (*Acronicta rumicis*)
- Rosy minor (*Litoligia literosa*)
- Sallow (*Xanthia icteritia*)
- Shoulder striped wainscot (*Leucania comma*)
- Small heath (*Coenonympha pamphilus*)
- Small phoenix (*Ecliptopera silaceata*)
- Small square spot (*Diarsia rubi*)
- Wall (*Lasiommata megera*)
- White ermine (*Spilosoma lubricipeda*)

4.6.38 The closest record was for small heath c.0.7km southwest of the Site.

4.6.39 The Site supports a level of botanical species diversity likely to be used by common invertebrate species. The likelihood of red data book species or other notable species being present at the Site is negligible.

4.6.40 The Site is therefore unlikely to be important for invertebrates, and no significant effects to invertebrates are considered likely to occur as a result of the Proposed Development.

Hazel dormouse

ZoI

4.6.41 The ZoI for hazel dormouse is considered to be the Site only as this is the only likely area where impacts to hazel dormouse may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.42 There are no records for hazel dormouse within 2km of the Site.

4.6.43 The Site lies outside of the geographic range of this species; this in combination with the absence of a suitable understorey scrub layer for shelter and foraging on Site means that the Site is highly unlikely to be ecologically important for hazel dormouse, and the species is highly unlikely to be present at the Site and no significant effect is likely to occur.

Reptiles

ZoI

4.6.44 The ZoI for reptiles is considered to be the Site only as this is the only likely area where impacts to reptiles may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.45 There are no records for reptiles within 2km of the Site.



4.6.46 The Site supports some suitable habitat for reptiles via scattered scrub and grassland clearing for basking opportunities, however the regular disturbance by the existing use of the Site as a recreational ground and boating facilities reduces the suitability of the Site for reptiles. Therefore, the presence of reptiles at the Site is unlikely.

4.6.47 It is therefore highly unlikely that the Site is ecologically important for reptiles and no significant effect is likely to occur.

Otter, water vole and white-clawed crayfish

4.6.48 There are 13 records for otter within 2km of the Site between 2018 and 2020. The closest record was c.0.85km north of the Site in 2018.

4.6.49 There are three records for water vole within 2km of the Site. The closest record was c.1.2km north of the Site along the Rochdale Canal in 2007.

4.6.50 There are no records for white-clawed crayfish within 2km of the Site.

4.6.51 Otter, water vole and white clawed crayfish are heavily associated with, and fundamentally reliant upon watercourses and water bodies.

4.6.52 Hollingworth lake is adjacent to the west and north of the Site. Due to the small size and low scale impact of the Proposed Development, these species are unlikely to be adversely affected by the Proposed Development.

4.6.53 The woodland and neutral grassland on Site are unlikely to be used by water vole and therefore the Site does not offer suitable habitat for water vole.

4.6.54 The woodland on Site offers limited suitability for otter due to the absence of a substantial understorey and the existing level of recreational disturbance through the use of the boating shed and water activities undertaken on the lake and recreational use of the woodland area on and adjacent to Site.

4.6.55 Otter and water vole are unlikely to be present at the Site and the Site is unlikely to be ecologically important to these species.

4.6.56 No significant effects to otter, water vole or white-clawed crayfish are anticipated as a result of the Proposed Development.

Wild birds

ZoI

4.6.57 The ZoI for wild birds is the Site only, as this is the only area where impacts to wild birds may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.58 There are 400 records for birds within 2km of the Site. Species include:

- Barn owl (*Tyto alba*)
- Common scoter (*Melanitta nigra*)
- Scaup (*Aythya marila*)
- Skylark (*Alauda arvensis*)
- Song thrush (*Turdus philomelos*)
- Spotted flycatcher (*Muscicapa striata*)
- Starling (*Sturnus vulgaris*)



- Tree pipit (*Anthus trivialis*)
- Twite (*Linaria flavirostris*)
- White-fronted goose (*Anser albifrons*)
- Willow tit (*Poecile montanus*)
- Yellow wagtail (*Motacilla flava*)

4.6.59 The closest record was for a spotted flycatcher adjacent to the Site in the surrounding woodland.

4.6.60 The Site supports suitable nesting habitat for wild birds via the tree canopy. Old bird nests and boxes were observed in the trees at the Site during the field survey. The grassland at the Site has low suitability for nesting birds owing to the short sward height and exposed nature of the grassland and associated high risk of predation.

4.6.61 The Site is unlikely to support important populations of wintering, breeding or migratory bird species due to the type of habitats present, their location in a disturbed rural environment, and the relatively small size of the Site.

4.6.62 There is a risk of a breach of Section 1 of the Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981) in relation to damage to/destruction of bird nests and their eggs if any tree removal is undertaken during the nesting bird season. Avoidance and mitigation measures have been proposed to reduce the risk of a breach of legislation to a negligible level.

4.6.63 It is unlikely that the Proposed Development will result in significant adverse ecological effects to wild birds, however, the potential for a breach in legislation will require avoidance and mitigation measures which are detailed within this report.

Protected plants

ZoI

4.6.64 The ZoI for protected plants is the Site only, as this is the only area where impacts to protected plants may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.6.65 There are 11 records for plants within 2km of the Site which are all for floating water plantain (*Luronium natans*) between 2002 and 2013. The closest record was c.0.4km north of the Site.

4.6.66 The Site is not likely to support protected or notable plant species. No protected or notable plant species were observed at the Site during the field survey, though the limitation on botanical survey season must be noted and no significant effect is likely to occur.

Invasive Species

4.6.67 There are no invasive species recorded from biological records within 2km of the Site.

4.6.68 *Rhododendron* sp. was present at the Site and its immediate surrounds. Due to the time of year, it was not possible to identify the *Rhododendron* to species level. Areas of the Site and its immediate surrounds had undergone recent clearance works for *Rhododendron*.

4.6.69 It must be noted that some *Rhododendron* sp. are listed under Schedule 9 of the Wildlife and Countryside Act 1981, where it states that it is an offence to plant or otherwise cause the species to grow in the wild (HMSO, 1981).

4.6.70 The *Rhododendron* sp recorded on Site may fall under Schedule 9 and as such would require treatment for removal to prevent its spread. Based on the Site assessment and current management for removal it is likely the species on Site will be prolific and spread if not managed appropriately.



- 4.6.71 Following removal and treatment of areas of *Rhododendron*, native species planting should be considered where appropriate to do so (specifically where trampling impacts can be precluded or reduced) to reintroduce suitable native species into the woodland.

4.7 Species for Further Consideration

- 4.7.1 Four species/species groups have been given further consideration within this assessment, these are; wild birds and invasive species.



5. Avoidance, Mitigation and Compensation

5.1 Non-Statutory Wildlife Sites

- 5.1.1 An on-hand spill kit should be present on Site during works to reduce the potential for indirect adverse effects associated with surface water runoff to a negligible level.

5.2 Trees

- 5.2.1 All retained trees should be protected appropriately throughout the construction phase in accordance with the Arboricultural Impact Assessment 220104 1340 AIA V1 by Wharton.
- 5.2.2 The DEFRA metric may be required to quantify the loss of the woodland as a result of the Proposed Development with compensation likely required through offsite compensation and enhancement.
- 5.2.3 The movement of plant machinery around the Site has the potential to cause damage to the root systems of existing and retained trees via root compaction, to avoid this impact ground guards should be used to reduce root compaction throughout the surrounding area and the Site in accordance with the Arboricultural Impact Assessment 220104 1340 AIA V1 by Wharton

5.3 Wild Birds

- 5.3.1 No further surveys for breeding, migratory or wintering birds are required at the Site.
- 5.3.2 The Proposed Development should also include five bird boxes. All of which must be positioned on north-facing aspects, out of direct sunlight (to avoid overheating eggs and chicks) and at a height of c.4m (to avoid predation by domestic cats). The provision of the specific bird boxes listed below will deliver additional nesting opportunities within the local in the area. These should include:
- General nesting boxes: two bird boxes with a 25mm entrance hole and two bird boxes with a 32mm entrance hole, both of which can be placed either on a suitable tree around the Site.
 - Open-fronted nest box which must be placed in well-concealed locations within vegetation (to prevent egg and chick predation).
- 5.3.3 Birds and their nests are legally protected (HMSO, 1981), and many species are listed as Species of Principal Importance (HMSO, 2006). Priority bird species are also afforded protection in planning through national (Department for Communities and Local Government, 2019) and local planning policy.
- 5.3.4 The tree removal and works in close proximity to the mature trees on Site to facilitate the Proposed Development should avoid the nesting bird season (March to September inclusive) or be checked by a suitably qualified ecologist immediately prior to works commencing to check for nesting birds if undertaken during the nesting season. If nesting birds are found a 5m non-disturbance buffer from the nest should be implemented until all chicks have hatched and naturally fledged the nest.
- 5.3.5 The netting of any suitable bird nesting habitat should be prohibited (CIEEM & RSPB, 2019).

5.4 Invasive Species

- 5.4.1 It must be noted that some *Rhododendron* sp are listed under Schedule 9 of the Wildlife and Countryside Act 1981, where it states that it is an offence to plant or otherwise cause the species to grow in the wild (HMSO, 1981).
- 5.4.2 The *Rhododendron* sp recorded on Site may fall under Schedule 9 and as such would require treatment for removal to prevent its spread. Based on the Site assessment and current



management for removal it is likely the species on Site will be prolific and spread if not managed appropriately.

- 5.4.3 Following removal and treatment of areas of *Rhododendron*, native species planting should be considered where appropriate to do so (specifically where trampling impacts can be precluded or reduced) to reintroduce suitable native species into the woodland.

6. Ecological Enhancement Opportunities

- 6.1.1 Hedgehog shelters should be provided at the Site as part of the Proposed Development, to enhance the Site for sheltering hedgehogs. These should be placed within vegetation and away from roads.

7. Conclusion

- 7.1.1 No further surveys for protected species are considered to be necessary in respect of the Proposed Development and subsequent planning application.
- 7.1.2 An on-hand spill kit should be present on-Site during works to reduce the potential for indirect adverse effects associated with surface water run off to a negligible level.
- 7.1.3 The *Rhododendron* sp recorded on Site may fall under Schedule 9 and as such would require treatment for removal to prevent its spread. Following removal and treatment of areas of *Rhododendron*, native species planting should be considered where appropriate to do so (specifically where trampling impacts can be precluded or reduced) to reintroduce suitable native species into the woodland.
- 7.1.4 Avoidance and good practice construction measures for nesting birds are necessary to prevent harm to these species and potential breach of legislation.
- 7.1.5 Enhancement measures have been provided for bats, birds and hedgehogs, as well as planting recommendations.



References

- BSI. (2012). BS5837: Trees in relation to design, demolition and construction. London: British Standards Institute.
- Butcher, B., Carey, P., Edmonds, R., Norton, L., & Treweek, J. (2020). Retrieved from The UK Habitat Classification Version 1.1: <http://www.ukhab.org/>
- CIEEM & RSPB. (2019). *CIEEM and RSPB advise against netting on hedges and trees*. CIEEM.
- CIEEM. (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, version 1.1*. Winchester: Chartered Institute of Ecology and Environmental Management.
- CIEEM. (2018). *Guidelines for Preliminary Ecological Appraisal, 3rd Edition*. Winchester: Chartered Institute of Ecology and Environmental Management.
- Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd ed.). London: The Bat Conservation Trust.
- DEFRA. (2021). *Multi Agency Geographic Information for the Countryside*. Retrieved from MAGIC Interactive Map: <http://magic.defra.gov.uk/MagicMap.aspx>
- Department for Communities and Local Government. (2019). *National Planning Policy Framework*. London: Department for Communities and Local Government.
- Department for Communities and Local Government. (2021). *National Planning Policy Framework*. London: Department for Communities and Local Government.
- GMRC, G. M. (2021).
- Google Earth Pro. (2021). Google.
- HMSO. (1981). The Wildlife and Countryside Act 1981 (as amended). London, UK: Her Majesty's Stationary Office.
- HMSO. (2006). The Natural Environment and Rural Communities Act. London, UK: Her Majesty's Stationary Office.
- HMSO. (2017). The Conservation of Habitats and Species Regulations 2017 (as amended). London, UK: Her Majesty's Stationary Office.
- HMSO. (2019). *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations*. London, UK: Her Majesty's Stationary Office.
- Rochdale Borough Council. (2016). *The Rochdale Adopted Core Strategy*.
- Stace, C. (2010). *New Flora of the British Isles 3rd ed*. Cambridge: Cambridge University Press.

Preliminary Ecological Appraisal

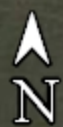
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Appendix 1 – Site Location Plan (Google Earth Pro, 2021)

Pavillion Cafe



90 m



Appendix 2 – UK Habitat Classification Plan



Scale: 1:500

Site Boundary

g3c - other neutral grassland

w1f - lowland mixed deciduous woodland

Date: 15/02/2022	
Client: Rochdale Borough Council	
Project: High Ropes, Hollingworth	
Title: UK Habitat Plan	
Map file reference	Plan No.
220111 1340A ECO V1	E001

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Appendix 3 - Local Planning Policy Excerpts (Rochdale Borough Council, 2016)

G7 - Increasing the value of biodiversity and geodiversity

We will ensure that sites and features of biodiversity and geodiversity importance are given full and appropriate recognition and protection. Opportunities for enhancing biodiversity and geodiversity, creating new sites and features of interest and improving opportunities for public enjoyment will be supported. No development should result in a net loss of biodiversity or geodiversity interest in the borough and overall development in the borough should result in a net gain.

Particular priorities for biodiversity and geodiversity are:

1. **The South Pennine Moors** - our focus is to maintain and enhance the peatland habitats of the moorland and to support development, land and water management activities which provide an opportunity to conserve and enhance the value of moorland for upland breeding birds of conservation significance and the habitats on which they depend and which do not harm biodiversity value. Our focus is the designated Special Protection Area and Special Area of Conservation but also the wider moorland where such interest is present or could be supported through appropriate development or land management. We will also protect and support enhancement measures for areas of geodiversity value.
2. **The Rochdale Canal** - our focus is to ensure that the Rochdale Canal Special Area of Conservation and the wider biodiversity interest of the canal is given full and appropriate protection and ensure that development which delivers the economic and recreational value of the Rochdale Canal and its wider corridor supports and does not harm its biodiversity value.
3. **Upland farmland** - our focus is to ensure that the biodiversity interest of upland farmland including its value for birds, woodland and grassland is protected and opportunities for enhancement and the creation of new interest maximised through land management improvements and appropriate development activities.
4. **Countryside around towns** - our focus is to protect and enhance the biodiversity interest of river valleys, woodland, water and farmland including the reclamation of derelict and neglected land and flood risk management measures. We will also support actions which enhance public access and enjoyment of countryside close to urban areas including Local Nature Reserves and the wider countryside.
5. **Urban Areas** - our priority is to protect and enhance existing urban biodiversity and to support opportunities for new urban biodiversity corridors, sites and features including sustainable urban drainage schemes, new public realm provision, street trees and urban woodlands, ponds and lodges, green roofs and natural play areas.
6. **Designated sites of ecological importance** - will be given appropriate protection according to their European, national or local status and in accordance with policies in other development plan documents, supporting Supplementary Planning Documents and Biodiversity Action Plans.
7. **Protected Species:** Development proposals which would affect a species protected by law or its habitat will not be permitted unless it can be demonstrated that:
 - a. there is no adverse impact on the species concerned;
 - b. damage to habitats is minimal and alternative habitat provision is effective in maintaining those species.

Opportunities to protect, enhance and create features of biodiversity or geodiversity interest should be informed by the detail of any formal designation of a site or area and supporting plans and guidance such as Local Biodiversity Action Plans, Green Infrastructure Strategies and Action Plans and the Council's Biodiversity and Development SPD.

We will expect development proposals and improvements to:

- a. Protect and include existing biodiversity (including established biodiversity interest on brownfield land) within new developments, public realm and open spaces and meet the requirements of the Biodiversity and Development SPD, Greater Manchester and Local Biodiversity Action Plans;
- b. Protect and enhance existing features such as peatland, ponds, wetlands, reservoirs, mill lodges, trees, hedges, wooded areas, meadows, flora and fauna;
- c. Take opportunities to promote biodiversity and create new habitats through new development using landscaping and building and construction features wherever possible (e.g. ponds, species of vegetation, green roofs and walls, bat boxes, roof space, appropriate nest boxes and landscaping);
- d. Enhance strategic wildlife corridors and the most natural areas and ensure that habitats and corridors are not fragmented by development;
- e. Improve access where appropriate to new or existing biodiversity interest for public enjoyment; and
- f. Protect important geology and take opportunities to increase interest and accessibility.



Appendix 4 - Site Photographs

Figure 1. Area of the Site



Figure 2. Clearing of the Site showing the grassland distribution



Figure 3. Surrounding woodland up to the Site



Figure 4. Clearing within the canopy area



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Figure 5. Lake visible to the north of the Site adjacent to the public footpath



Figure 6. Public footpath to the north of the Site



Figure 7. Rhododendron present within the surrounding area



Figure 8. Rhododendron clearance area



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