

**Millworth Recreation Ground
Millworth Lane
Shinfield
Reading
Berkshire
RG2 9EN**

Preliminary Ecological Appraisal & BNG Assessment

Ref.: R2468_PEA_c

Report Quality Control Information	
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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP (JWEC) was commissioned by Tony Grover of BDS Surveyors Limited, on behalf of Shinfield Parish Council, to undertake a Preliminary Ecological Appraisal (PEA) at Millworth Recreation Ground, in Shinfield, Berkshire. The PEA was commissioned to support a planning application to be submitted to Wokingham Borough Council seeking consent for an increase in parking and recreation facilities at the recreation ground.
- 1.1.2** The survey methodology included a desk study (comprising a Thames Valley Environmental Records Centre 1km data search), a field survey (using UKHab classification system) and a preliminary roost assessment for bats.
- 1.1.3** The desk study found that: the application site falls within the Zone of Influence (Zoi) for the Thames Basin Heaths Special Protection Area (SPA) and within two Sites of Special Scientific Interest (SSSI) Impact Risk Zones (IRZs). The site is immediately surrounded by allotments, a school playing field and arable and pasture farmland, with residential development to the north.
- 1.1.4** The field survey identified the following UKHab habitats: buildings (u1b5), developed land; sealed surfaces (u1b); modified grassland (g4), other native hedgerow (h2a6), lowland mixed deciduous woodland (w1f), with standing open water and canal, drainage ditch (r1) adjacent to the application site, but outside of the red line boundary.
- 1.1.5** The external preliminary roost assessment assigned the storage structures low suitability for roosting bats, however an internal survey is required to confirm the likely status.
- 1.1.6** Section 10 provides recommendations regarding: habitat protection and compensation measures; sensitive lighting measures for bats; precautionary mitigation for reptiles; precautionary measures for nesting birds; and

ecological enhancements. It is expected that these recommendations can be secured by an appropriately worded planning condition.

- 1.1.7** The biodiversity net gain metric shows that with habitat creation on site comprising new woodland planting to extend the existing woodland, enhancement of modified grassland to other neutral grassland, tree planting and enhancement of the existing hedgerows with additional shrub and tree planting that a habitat and hedgerow gains of over 10% can be delivered on site.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP (JWEC) was commissioned by Tony Grover of BDS Surveyors Limited, on behalf of Shinfield Parish Council, to undertake a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) Assessment at Millworth Recreation Ground, in Shinfield, Berkshire.

2.1.2 The PEA and BNG were commissioned to support a planning application to be submitted to Wokingham Borough Council seeking consent for an increase in parking and recreation facilities at the recreation ground (see proposed plans in **Appendix 5**).

2.2 Site Location and Context

2.2.1 Millworth Recreation Ground is located to the south east of the suburban village of Shinfield, south of the town of Reading (OS grid reference: SU 73451 67456).

2.2.2 The site is situated within an semi-rural setting, immediately surrounded by allotments, a school playing field and arable and pasture farmland, with residential development to the north.

2.2.3 The application site covers approximately 2.5 hectares of land, which includes the existing access track and car parking, playing field, club house, children's playground, tennis courts and several storage structures.

2.3 Objectives

2.3.1 The aim of this PEA is to understand the nature of the site and assess its ecological value. The key objectives are to:

- identify any likely ecological constraints associated with the planning proposals;
- establish appropriate mitigation measures in accordance with the mitigation hierarchy (i.e. avoid > minimise > remediate > compensate);
- determine any additional surveys that may be required following on from this preliminary stage; and

- recognise opportunities to deliver ecological enhancements in line with national and local planning policy.

3 LEGISLATIVE BACKGROUND

3.1 Overview

3.1.1 The following legislation is considered relevant for the purpose of this preliminary ecological appraisal:

- Wildlife and Countryside Act (W&CA) 1981 (as amended)
- Conservation of Habitats and Species Regulations ('Habitat') Regulations 2017 (as amended)
- Countryside and Rights of Way (CROW) Act 2000
- Natural Environment and Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

3.1.2 These acts hold relevance to both protected and invasive species and the degree of protection varies depending on faunal/floral group or species. For example, some species of European importance receive full protection within the UK under the Habitat Regulations (e.g. bats), whereas others, may only be afforded protection through national legislation such as the Wildlife and Countryside Act 1981 (as amended) (e.g. common lizard). For a detailed overview of species-specific legislation, please refer to **Appendix 2**.

3.2 European Protected Species Mitigation Licensing

3.2.1 The Government's statutory nature conservation advisory organisation, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (2)(e) – the derogation is for the purposes of '*preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.*'
- (9)(a) – there is '*no satisfactory alternative*' to the derogation; and
- (9)(b) – '*the action authorised will not be detrimental to the*

maintenance of the population of the species concerned at a favourable conservation status in their natural range.'

- 3.2.2** Local Planning Authorities (LPAs) have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations consider and determine whether these three tests are likely to be satisfied by planning proposals affected EPS before granted planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

4 PLANNING POLICY

4.1 National Planning Policy

- 4.1.1** The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England.
- 4.1.2** The ODPM Circular 06/2005 provides guidance on the application of the law relating to planning and nature conservation in England, stating that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*
- 4.1.3** The National Planning Policy Framework (NPPF), published in December 2023, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach local authorities should adopt to conserve and enhancing the natural environment when preparing planning policy and when considering planning applications. Paragraph 186 sets out the principles LPAs should apply when determining planning applications, as follows:

'When determining planning applications, local planning authorities should apply the following principles:

- a) *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;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

- c) *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; and*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

4.1.4 In England, Biodiversity Net Gain (BNG) is mandatory from the 12th February 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). In practice, planning permission in England is now subject to a condition to secure a minimum 10% net gain for biodiversity, unless the development is a type that is exempt from mandatory BNG requirements. A Biodiversity Gain Plan detailing BNG management and monitoring over a 30 year period will be required as a condition following the grant of planning permission; the development cannot commence until the Plan has been approved in writing by the LPA.

4.2 Local Planning Policy

4.2.1 Wokingham Borough's development plans is formed of a number of documents including the Core Strategy Development Plan Document (DPD) (January 2010), Managing Development Delivery (MDD) Local Plan (February 2014), and supplementary planning documents (SPDs), which set out planning criteria used to determine applications for planning permission in the Borough. The Local Plan Update aims to refine the current Core Strategy and provide a strategy for the Borough up to March 2036. The follow policies relate to biodiversity:

Core Strategy DPD: 'Policy CP7 – Biodiversity

Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be

appropriate to the status of the site in terms of its international or national importance. Development:

- A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or*
- B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or*
- C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:*
 - i) Mitigation measures can be put in place to prevent damaging impacts; or*
 - ii) Appropriate compensation measures to offset the scale and kind of losses are provided.*

Core Strategy DPD: 'Policy CP8 – Thames Basin Heaths

Development which alone or in combination is likely to have a significant effect on the Thames Basin Heaths Special Protection Area will be required

to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.

MDD Local Plan: 'Policy TB23: Biodiversity and Development

- 1. Sites of national or international importance are shown and sites of local importance are defined on the Policies Map.*
- 2. Planning permission for development proposals will only be granted where they comply with policy CP7 – Biodiversity of the Core Strategy and also demonstrate how they:*
 - a) Provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing;*
 - b) Provide appropriate buffer zones between development proposals and designated sites as well as habitats and species of principle importance for nature conservation; and*
 - c) Ensure that all existing and new developments are ecologically permeable through the protection of existing and the provision of new continuous wildlife corridors, which shall be integrated and linked to the wider green infrastructure network.*

5 SURVEY METHODOLOGY

5.1 Desk Study

5.1.1 A desktop study was conducted by Verity West – a qualifying member of CIEEM – before and after visiting the site. The study utilised data from the local environmental records centre (TVERC) and online resources to acquire information on the nature of the site and its surroundings and highlight any potential ecological features.

5.1.2 Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of pre-existing records of protected and/or notable species and non-statutorily designated wildlife sites held by them within a 1km radius around a central point inside the site. NatureSpace impact risk zone maps were consulted which accurately predict great crested newt (GCN) presence through the analysis of habitat suitability in the landscape.

5.1.3 The DEFRA Data Services Platform and the MAGIC website was used to obtain geospatial datasets for designated sites (i.e., RAMSAR, SPA, SAC, SSSI) and habitat inventories (i.e., Priority Habitat Inventory, Ancient Woodland Inventory) to be analysed in QGIS. The Multi-Agency Geographical Information Centre (MAGIC) website was examined for granted European Protected Species (EPS) licence applications. Furthermore, geospatial datasets and Google Earth satellite imagery were used to determine the extent and connectivity of habitats, how the site is linked to the surrounding landscape and whether the development could have wider scale impacts on biodiversity.

5.1.4 Historical OS maps and Google Earth satellite imagery were consulted to provide insight into historic and current land use; such information helps contextualise the continuity of habitats and determine the importance of existing ecological features.

5.2 Field Survey

5.2.1 A site walkover was undertaken on the 6th March 2024 by John Wenman MCIEEM and Verity West – a qualifying member of CIEEM. The site was surveyed using the UK Habitat Classification (UKHab) system (UKHab Ltd. 2023) in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM 2017). Particular attention was given to

evidence of protected and priority species (NERC Act 2006 Section 41 species of principal importance) and the site's potential to support such species.

- 5.2.2** Photographs of habitats and ecological features were taken during the site walkover and mapped using QGIS software after the survey visit (**Appendices 2 & 3**). Plant species were recorded to aid habitat classification.

5.3 Preliminary Roost Assessment

- 5.3.1** A survey of the exterior of the storage structures, was undertaken on the 6th March 2024 by John Wenman MCIEEM and Verity West – a qualifying member of CIEEM. An internal inspection was undertaken on 24th April 2024 by John Wenman.

- 5.3.2** The surveys were undertaken with the aid of binoculars and a high power (1 million candle power) torch, systematically searching for signs of bat occupation and features that could offer potential roosting sites following standard survey guidelines (Collins 2023; Mitchell-Jones & McLeish 2004; Reason & Wray 2023).

- 5.3.3** The following may indicate the presence of a bat roost within a building:

- Bat droppings (these can be found externally, especially in sheltered areas such as window sills, underneath roost entrances or internally within a roof space);
- Piles of insect remains, e.g. moth wings (these may be indicative of regular feeding sites used by species such as the brown long eared bat);
- Staining at roost entrances or within the roost (urine and oil from fur can leave stains on timbers when bats are gathered for long periods); and
- Bats (live or dead).

- 5.3.4** Commercial buildings may offer potential roosting sites in a number of locations – favoured locations include:

- Under roof and ridge coverings, especially when loose or lifted tiles are present, or sections of mortar are missing;

- At the gable ends – access is typically gained at the roof apex via gaps in the soffits or under roof coverings;
- At the eaves – gaining access via gaps between the soffits and wall; and
- Within an enclosed roof space – brown long-eared bats for example will often cluster at the ridge beam.

5.4 Survey Constraints

5.4.1 All ecological survey work is subject to seasonal constraints because not all plant and animal species are visible throughout the year and therefore the report represents a snapshot of the site at the time of the survey only. The plant species list should not be considered a comprehensive list of species present.

5.4.2 It should be noted that it is not always possible to inspect all potential roost locations during a survey, particularly for crevice-dwelling bats which roost behind roof lining and inside wall cavities. Therefore, an absence of bat evidence does not necessarily equate to evidence of bat absence.

6 DESK STUDY FINDINGS

6.1 Designated Sites and Habitats

6.1.1 The desk study highlighted: one statutorily designated site of international importance and two statutorily designated sites of national importance within a 5km radius of the application site; and three non-statutorily designated sites of county importance within a 1km radius (see Tables 1a & 1b).

Table 1a. Statutory designated sites within the vicinity of the site (Source: DEFRA).

Site name	Designation	Description	Distance from nearest site boundary (m)
Thames Basin Heath	Special Protection Area (SPA)	Thames Heath SPA is classified under Article 4.1 of EC Directive 79/409 on the Conservation of Wild Birds (the Birds Directive). The site consists of tracts of heathland, scrub and woodland. The site supports important breeding populations of a number of birds of lowland heathland, especially nightjar <i>Caprimulgus europaeus</i> and woodlark <i>Lullula arborea</i> , both of which nest on the ground, often at the woodland/heathland edge, and Dartford warbler <i>Sylvia undata</i> , which often nests in gorse <i>Ulex</i> sp.	4.5 km S
Stanford End Mill and River Loddon	Site of Special Scientific Interest (SSSI)	The site comprises Stanford End Mill meadows, a series of traditionally-managed seasonally waterlogged hay meadows, and a 4 km stretch of the River Loddon, a tributary of the River Thames. The valley is situated on Tertiary deposits of Valley Gravel and River Alluvium overlying London Clay. The site is of interest particularly for nationally important populations of two rare plants: the fritillary <i>Fritillaria meleagris</i> , a native bulb of unimproved damp meadows now mainly confined to scattered localities in southern Britain, and the Loddon pondweed <i>Potamogeton nodosus</i> , a very rare aquatic species for which this length of the River Loddon is the national stronghold.	2.5 km SW
Longmoor Bog	Site of Special Scientific Interest (SSSI)	Longmoor Bog is one of a few examples in Berkshire of a base-poor valley mire, its main features being a well-developed carr of alder <i>Alnus glutinosa</i> , grey willow <i>Salix cinerea</i> , downy birch <i>Betula pubescens</i> and alder buckthorn <i>Frangula alnus</i> and an area of wet heathland dominated by purple moor-grass <i>Molinia caerulea</i> and cross-leaved heath <i>Erica tetralix</i> . The remainder of the site is predominantly secondary mixed woodland.	4.8 km SE

Table 1b. Non-statutory designated sites within the vicinity of the site (Source: HBIC).

Site name	Designation	Criteria	Distance from nearest site boundary (m)
Arborfield Bridge Meadow	Local Wildlife Site (LWS)	This is an eyot within the River Loddon with a few manmade channels created between the two. It is predominantly an area of wet woodland with widespread mature hybrid crack-willow and dense common sallow across the site along with some mature weeping willow. Alder is locally abundant and there's frequent sycamore. Many other trees	810m NE

		such as ash, elder and pedunculate oak are only occasional throughout the site. The sub-canopy is very dense in places with bramble and snowberry lining some of the routes. Common nettle and Himalayan balsam dominate the ground flora throughout. There's also some Japanese knotweed. Riparian margins contain some fen species such as purple loosestrife, common figwort, great yellow-cress, gypsywort and water mint. It used to be more open with more indicators of fen and marshy grassland. In the past species such as arrowhead, common meadow-rue and yellow loosestrife have also been recorded.	
Rounds Copse	Local Wildlife Site (LWS)	Rounds Copse is a small area of hazel coppice with oak standards. The canopy includes old ash coppice regrowth, small amounts of aspen and, in wetter areas of the wood, crack willow. To the north east, there are areas of hazel coppice lacking standard trees and parts locally dominated by young ash. Some areas of the site are quite acidic with abundant bracken and smaller amounts of foxglove and wood sorrel. Many species associated with ancient woodland have been recorded here including wood melick, wood meadow-grass, primrose, ramsons, wood anemone and bluebell. There are also small amounts of Solomon's seal and wild service-tree.	680m E
Moor Copse	Local Wildlife Site (LWS)	This site is ancient woodland. The site has been modified by the planting of sweet chestnut throughout the much of the site. Otherwise the canopy is dominated by oak and ash with frequent hazel coppice in the understorey. Birch is abundant in places. A few alder buckthorn are present. The wettest areas are dominated by alder and willow. The western arm has been replanted with conifers. Species associated with long established woodland recorded here include ramsons, pignut, wood melick, wood sorrel, primrose, wood speedwell and yellow archangel.	625m S

6.1.2 Tanner's Copse - approximately 40m from the southern boundary of the site
- is a priority habitat (NERC Act 2006 Section 41 habitats of principle importance) ancient and semi-natural deciduous woodland, and an additional priority habitat deciduous woodland approximately 110m to the west - but the application site itself does not feature this priority habitat.

6.2 Protected and Notable Species

6.2.1 The search of the TVERC database revealed a range of protected and/or notable species records dating from the 1990s onwards. Only recent records defined as fewer than ten years old are included in this report (see Tables 2a & 2b).

Table 2a. Recent protected and/or notable species records within the vicinity of the site (Source: TVERC).

Common name	Scientific name	No. of records	Most recent record	Nearest record (m)	Precision (m)	Status
Amphibians						

Great crested newt	<i>Triturus cristatus</i>	1	2020	843 m	n/a	HabReg_2, WCA_5s94b/c NERC S41
Terrestrial Mammals (excl. bats)						
West European Hedgehog	<i>Erinaceus europaeus</i>	4	2019	84 m	n/a	UK BAP Priority, NERC S41
Eurasian Badger	<i>Meles meles</i>	26	2022	324 m	n/a	PBA
Invertebrates						
Stag beetle	<i>Lucanus cervus</i>	17	2020	0.1 m	n/a	WACA-Sch5- s9.5a NERC S41
Small heath butterfly	<i>Coenonympha pamphilus</i>	2	2016	169 m	n/a	NERC S41
Common darter dragonfly	<i>Sympetrum striolatum</i>	22	2019	24 m	n/a	RL-GB- post2001-DD
Cinnabar moth	<i>Tyria jacobaeae</i>	2	2019	130 m	n/a	NERC S41
Bats						
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	30	2023	351 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Brown long-eared	<i>Plecotus auritus</i>	8	2023	516 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Myotis	<i>Myotis</i> sp.	6	2017	414 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	1	2013	414 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Noctule	<i>Nyctalus noctula</i>	13	2018	414 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Serotine	<i>Eptesicus serotinus</i>	6	2017	706 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	16	2018	414 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Western Barbastelle	<i>Barbastella barbastellus</i>	3	2017	706 m	n/a	Hab_4 HabReg_2 NERC S41 WCA_5s94b/c
Higher Plants						
Bluebell	<i>Hyacinthoides non-scripta</i>	2	2017	59 m	n/a	WACA-Sch8
Common Valerian	<i>Valeriana officinalis</i>	1	2015	676 m	n/a	RL-Eng- post2001-NT
Wood Sorrel	<i>Oxalis acetosella</i>	1	2015	676 m	n/a	RL-Eng- post2001-NT
Reptiles						
Grass snake	<i>Natrix</i>	1	2017	679 m	n/a	WACA-Sch5-

	<i>helvetica</i>					s9.1k/s9.5a NERC S41
Birds						
Fieldfare	<i>Turdus pilaris</i>	8	2021	1 m	1000	WACA-Sch1- p1 Bird-Red
Red kite	<i>Milvus milvus</i>	22	2021	1 m	1000	WACA-Sch1- p1 RL-Global- post2001-NT
Redwing	<i>Turdus iliacus</i>	7	2021	1 m	1000	WACA-Sch1- p1 Bird-Amber
Pintail	<i>Anas acuta</i>	1	2014	450 m	1000	WACA-Sch1- p2 Bird-Amber
Brambling	<i>Fringilla montifringilla</i>	2	2017	611 m	1000	WACA-Sch1- p1
Cuckoo	<i>Cuculus canorus</i>	4	2015	1 m	1000	NERC S41 Bird-Red
House sparrow	<i>Passer domesticus</i>	9	2021	1 m	1000	NERC S41 Bird-Red
Lapwing	<i>Vanellus vanellus</i>	6	2014	450 m	1000	NERC S41 Bird-Red
Linnet	<i>Linaria cannabina</i>	8	2021	1 m	1000	NERC S41 Bird-Red
Skylark	<i>Alauda arvensis</i>	14	2020	1 m	1000	NERC S41 Bird-Red
Yellowhammer	<i>Emberiza citrinella</i>	15	2019	1 m	1000	NERC S41 Bird-Red

Table 2b. Species status key.

Abbreviation	Legislation
Hab_4	Annex IV of the Habitats Directive - Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat
HabReg_2	Schedule 2 of Conservation of Habitats and Species Regulations 2010 (European Protected Species animal) - It is an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2.
NERC S41	Priority Species listed under Section 41 of the Natural Environment and Rural Communities Act 2006.
PBA	Protection of Badgers Act 1992 – Badgers and their setts are protected; making it illegal to kill, injure or take, possess or cruelly ill-treat badgers or to interfere with a badger sett.
RL GB Post2001 NT	The IUCN Red List category - Near Threatened - Taxa where it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category.
WCA_5s94b/c	Schedule 5 Section 9 Parts 4b/c of the Wildlife and Countryside Act 1981 (as amended) - Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection / Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.
Bird_red/amber	Birds of Conservation Concern Red or Amber list – Globally threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years;

	and those that have declined historically and not shown substantial recovery.
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- 6.2.2** The NatureSpace great crest newt (GCN) impact map identified the site as in the Green Risk Zone, i.e. moderate habitat suitability – great crested newts may be present.
- 6.2.3** Mapping shows there to be two ponds within a 500m radius of the application site: one 135 m to the northwest, the second pond approximately 180 m to the northwest. The ponds are situated across Hyde End Road.
- 6.2.4** No granted European Protected Species mitigation licences were found on MAGIC within a 2 kilometre radius of the application site.

6.3 Historic and Current Land Use

- 6.3.1** Google Earth Satellite imagery dating back to 2003 shows that there has not been a significant change in the land use within the application site boundary.

7 FIELD SURVEY FINDINGS

7.1 Overview

- 7.1.1** The application site covered 2.5ha of land at Millworth Recreation Ground and included an access track and car parking, playing field, club house, children's playground, tennis courts and several storage structures.
- 7.1.2** The following UK Habitat Classification (UKHab) habitats were observed during the site walkover: buildings (u1b5), developed land; sealed surfaces (u1b); modified grassland (g4), other native hedgerow (h2a6), lowland mixed deciduous woodland (w1f), with standing open water and canal, drainage ditch (r1) adjacent to the application site, but outside of the red line boundary. Secondary codes observed included: scattered trees (32), ruderal or ephemeral (81), frequently mown (108) natural sports pitch (820), car park (804) and commercial building (805).
- 7.1.3** The UKHab primary habitats and secondary codes are described below; associated photographs are displayed in **Appendix 2** and the habitat survey is mapped in **Appendix 3**.

7.2 g4 Modified grassland

32 Scattered trees/ 81 Ruderal or ephemeral/ 108 Frequently mown/ 820 Natural sports pitch

- 7.2.1** Most of the site comprised a recreational sports pitch of closely mown grassland with margins of less frequently cut grassland around the pitches and tennis courts (**Photographs 1 & 2**). The main sports pitch area was frequently mown, and the areas towards the north, western and eastern corners of the site, were managed and used for storage, play equipment and car parking, however there was some ruderal vegetation growing up in places, especially on the northwestern boundary. An oak (*Quercus* sp.) (**Photograph 3; Target note 1**), rowan (*sorbus aucuparia*) (**Photograph 4; Target note 2**) and beech (*Fagus sylvatica*) (**Photograph 5; Target note 3**) tree were present along the western site boundary. Another oak (*Quercus* sp.) next to the storage units on the western corner (**Target Note 4**), was ivy (*Hedera helix*) clad. These trees are to be removed in the proposed plans, but lacked any features suitable for roosting bats such as loose bark, cavities and decay or slit limbs for example, and therefore offered negligible

bat roosting potential. Beneath this tree canopy, separated from adjacent allotments by a chain link fence, the species present in addition to perennial rye grass (*Lolium perenne*) were bramble (*Rubus fruticosus* agg.), Yorkshire fog (*Holcus lanatus*), nettle (*Urtica*), cleavers (*Galium aparine*), lords-and-ladies (*Arum maculatum*), cock's-foot (*Dactylis glomerata*), germander speedwell (*Veronica chamaedrys*), common bent (*Agrostis capillaris*), sow thistle (*Sonchus* sp.), wood avens (*Geum urbanum*), wavy bittercress (*Cardamine flexuosa*), lesser celandine (*Ficaria verna*), common ragwort (*Jacobaea vulgaris*), cow parsley (*Anthriscus sylvestris*), yarrow (*Achillea millefolium*), red fescue (*Festuca rubra*), Canadian fleabane (*Conyza canadensis*), creeping bent (*Agrostis stolonifera*), ground ivy (*Glechoma hederacea*) and dead nettle (*Lamium* sp.) **(Photograph 7)**.

- 7.2.2** The number of species in the sports pitch's sward was very low with perennial rye grass (*Lolium perenne*) dominating, additional species present around the edges of the pitch, and the especially the eastern edge of the site near the tennis courts, included common daisy (*Bellis perennis*), dandelion (*Taraxacum officinale* agg.), smooth meadow grasses (*Poa pratensis*), dove's-foot crane's bill (*Geranium molle*), yarrow (*Achillea millefolium*), groundsel (*Senecio vulgaris*), parsley piert (*Alchemilla arvensis*), common mouse-ear (*Cerastium fontanum*) and sow thistle (*Sonchus* sp.) **(Photographs 8 & 9)**.

7.3 h2a –Native hedgerow

32 Scattered trees

- 7.3.1** Hedgerow on the south western, north eastern and part of the south eastern site boundaries consisted mainly of hazel (*Corylus avellana*) and blackthorn (*Prunus spinosa*), containing numerous scattered oak (*Quercus robur*) trees **(Photographs 10 & 11)**. A wet ditch (**r1 standing open water drainage ditch**) was present just outside of the red line boundary, containing hemlock (*Conium maculatum*) and water dropwort (*Oenanthe crocata*) **(Photograph 12)**. This habitat was assessed as unsuitable for great crested newts and the site falls within the NatureSpace Green Risk Zone.

7.4 w1f – Lowland Mixed Deciduous Woodland

- 7.4.1** At the southern corner of the site was a woodland area, dominated by oak (*Quercus sp.*) and including other species such as elder (*Sambucus nigra*) and dog rose (*Rosa canina*). Beneath the woodland canopy a number of species typically found on the woodland floor were found including daffodils (*Narcissus sp.*), bluebell (*Hyacinthoides non-scripta*), ivy (*Hedera helix*), bramble (*Rubus fruticosus agg.*) and lords-and-ladies (*Arum maculatum*) (**Photographs 13 – 15**). There was a single standing dead tree on the edge of the woodland, providing potential bat roosting suitability (**Photograph 16; Target note 5**).

7.5 u1b – Developed land, sealed surface

804 Car park; 815 Commercial building

- 7.5.1** There were areas of sealed surface providing car parking at the northern corner and eastern corner of the site (**Photographs 17 & 18**). At the northern corner the area was bordering allotments containing multiple compost piles, adjacent to the chain link fence boundary (**Photograph 19**). There was also a hardstanding area used for storing equipment, south of the pavilion building (**Photograph 20**). Tennis courts surrounded by a chain link fence were situated on the eastern side of the site (**Photograph 21**). A playground area with sealed rubber surface containing equipment was situated to the north of the site (**Photograph 22**).
- 7.5.2** There were various structures on the site, a main pavilion style building (**Photograph 23**), a small metal storage container on timber sleepers near the pavilion building (**Photograph 24; B1**), and three small storage structures at the western corner (**Photographs 25 – 28; B2 – 4**). The small storage structures (**B1-4**) are all to be impacted by the proposed works. Descriptions of the buildings are detailed in the preliminary roost assessment in **Section 8**.

8 PRELIMINARY ROOST ASSESSMENT FINDINGS

8.1 Overview

- 8.1.1 Photographs of the buildings are presented below and a building plan is shown in **Appendix 5**. The survey findings of the storage structures to be impacted by the proposals are described as follows:

8.2 Storage Container (B1)

- 8.2.1 A sealed metal storage container, raised off the ground on wooden sleepers, offering no suitable bat roosting potential.



Small metal storage container south of clubhouse (B1).

8.3 Storage Container (B2)

- 8.3.1 A metal storage container, with vented/louvred doors, offering potential bat access, but was otherwise not suitable for roosting bats (**Target note 1**). Mouse droppings were observed (**Target note 2**).



Small metal storage structure with vented/louvred doors (B2).



Vented/louvred access (B2).



No crevice opportunities internally (B2).



Mouse droppings observed (B2).

8.4 Small timber clad storage building (B3)

- 8.4.1** The building was of blockwork construction with timber cladding and a flat roof covered tightly with bitumen roofing felt, lined with sterling board. Gaps were present above the entrance doors and via open brick vents, offering potential bat roost access (**Target note 3**). There were very limited suitable crevice opportunities available. The building was heavily cobwebbed throughout. Mouse droppings were observed (**Target note 4**).



Blockwork timber clad structure with access gaps above doors (B3).



Heavily cobwebbed, sterling board lined, no crevice opportunities (B3).

8.5 Small storage building (B4)

- 8.5.1** The small building was of simple prefabricated construction with an unlined corrugated flat roof and wooden doors. Small gaps were visible between the

walls and roof offering potential bat roost access (**Target note 5**). There were no suitable crevice opportunities available.



Prefab structure with corrugated roof (B4).



Unlined roof, no crevice opportunities (B4).

9 DISCUSSION

9.1 Assessment of Existing Ecological Value

Designated sites

- 9.1.1** The desk study revealed that the application site is not statutorily or non-statutorily designated for its wildlife interest and therefore is not currently recognised as being of international, national or county level conservation significance. However, the site does fall within the SSSI Impact Risk Zones (IRZs) for Stanford End Mill & River Loddon SSSI (2.5km from the site) and Longmoor Bog SSSI (4.8km from the site). The site also falls within the Thames Basin Heaths Special Protection Area (SPA) Zone of Influence (Zoi), situated just over 4.5km from the site.
- 9.1.2** The desk study data included three locally designated sites within a 1km radius of the application site: Arborfield Bridge Meadow (LWS), Rounds Copse (LWS) and Moor Copse (LWS).
- 9.1.3** The land-use between the development site and designated sites is predominantly industrial and residential and fragmented by road infrastructure.

Habitats

- 9.1.4** The application site is predominantly characterised by various built structures, hard standing and modified grassland – urban habitats of low distinctiveness and negligible ecological value.
- 9.1.5** There were smaller areas of habitat on site of higher ecological value, specifically native hedgerows with scattered trees – a habitat of medium distinctiveness – and a deciduous woodland copse – an example of lowland mixed deciduous woodland – a priority habitat (NERC Act 2006 Section 41 habitats of principle importance) of high distinctiveness. These habitats of medium and high distinctiveness are of ecological value at the site and local

level respectively, but are of negligible value on a wider geographic scale i.e. at the county, regional and national level.

Bats

- 9.1.6** The survey found no evidence of bats present within the trees to be impacted on the site. The storage structures (B1-B4) to be impacted by the proposals offer no suitable bat roosting opportunities.

Hazel dormice

- 9.1.7** Hazel dormice favour dense habitat connected to woodland that allows animals to move easily through habitats without coming to the ground (English Nature 2006). There were no records of hazel dormice in the search radius of the application site and no suitable on-site habitat – the small woodland copse and hedgerow had open structures not providing the dense vegetation structure required by dormice. A search of MAGIC showed no dormice mitigation licences within 2km radius of the site and as such, no further consideration of hazel dormice is made within this report.

Great Crested Newt (and other amphibians)

- 9.1.8** The desk study data included no recent records of great crested newt (GCN) and a search of MAGIC for granted EPS licence applications returned none within a 2km radius. No standing water suitable for breeding amphibians was present on the site. Most of the habitat on site comprised of hard standing and heavily managed grassland, terrestrial habitats of low suitability for use by GCN. Two ponds that could potentially support breeding GCN were identified within a 500m radius of the application site. The ponds are all situated within a residential area, separated from the application site by a major road. Therefore, it is considered unlikely that they will be found on site and no further consideration of great crested newts and other amphibians is made within this report.

Reptiles

- 9.1.9** No records of reptiles were present within the background data search for the site; however, the adjacent allotments site, with multiple compost piles, to the north west of the site has potential to support reptiles, with the chain link dividing fence allowing free access onto site and the areas of less

intensively managed grassland with patchy tall ruderal vegetation on the site's margins, which could offer reptile habitat of low ecological value for opportunistic individuals from the off-site suitable habitat to the north-west.

Nesting birds

- 9.1.10** The hedgerow line and scattered trees on the boundaries are likely to provide some limited nesting and foraging opportunities for common and widespread bird species adapted to urban environments such as the house sparrow (*Passer domesticus*). It is unlikely that the application site supports an assemblage of species of conservation importance.

Badgers (and other mammals)

- 9.1.11** There are no records of badger setts and individuals within the search radius and there was no evidence of badger activity on site (i.e. sett entrances). Therefore, it is considered unlikely that they will be found on site and no further consideration of badgers is made within this report.

Invertebrates

- 9.1.12** The habitats within the site boundary are considered unlikely to support invertebrate assemblages of conservation importance. As such, no further consideration of invertebrates is made within this report.

9.2 Impact of Proposals

Summary of proposals

- 9.2.1** The planning proposals involve an increase in parking and recreation facilities at the recreation ground. The proposals include the removal of existing storage structures and four trees (see proposed plans in **Appendix 5**).

Designated sites and habitats

- 9.2.2** There will be no increase in residential units on the site so there will be no additional recreational pressure on the Thames Basin Heaths SPA. Furthermore, the planning proposals do not fall into any categories specified in the IRZ for the SSSIs and are not of a nature i.e. involve no physical

changes to the site, that would directly affect any of the statutorily or non-statutorily designated sites. There is an barrier of existing residential development and infrastructure between the site and designated sites to prevent any direct or indirect adverse effects from the proposals.

- 9.2.3** The hedgerows and woodland copse will be retained and continue to provide woodland edge habitat for foraging and commuting bats and nesting habitat for birds; protection measures should be adopted to prevent damage from construction activities (refer to recommendations in **Section 10**). Four scattered trees on the western side will need to be removed to allow for the redevelopment but they were of negligible bat roost potential and relatively young. There should be consideration given to planting replacement and new scattered native trees – a habitat of medium distinctiveness - as part of biodiversity enhancement proposals. Furthermore, there would be scope to enhance and create more diverse grassland communities of low to medium distinctiveness as part of the landscaping proposals (refer to Section 10).

Bats

- 9.2.4** The proposals will not have an adverse impact on the availability of foraging or commuting habitat for bats locally, in particular along the woodland edge as these trees will be retained.
- 9.2.5** The removal of the storage structures on site and removal of the trees on the north-western boundary will not have an impact on bats or their roosts and therefore the removal of these structures and trees would not require a European Protected Species (EPS) mitigation licence to proceed lawfully.

Reptiles

- 9.2.6** There is a low risk that reptiles are using the grassland opportunistically, however the loss of the grassland to allow for car parking and new facilities is unlikely to directly impact individual animals, particularly if non-licensed

avoidance measures are adopted during construction (refer to recommendations in **Section 10**).

Nesting birds

- 9.2.7** Precautionary measures must be adopted for the removal of trees to avoid damaging and/or destroying bird nests and ensuring work is undertaken lawfully (refer to recommendations in **Section 10**)

10 RECOMMENDATIONS

10.1 Habitats

10.1.1 The trees along the western and southern boundary of the site should be protected during construction to avoid damage to root systems, particularly those adjacent to the proposed 5 a side football pitch, fitness zone and events mound with pump track. The following protection measures are recommended:

- Erection of Heras fencing in advance of site clearance, enclosing tree Root Protection Areas (RPAs);
- Prohibition of construction activities, material storage, use of vehicles, fires etc. within the fenced RPAs to prevent damage to tree roots and compaction of the soil; and
- Compliance with up-to-date pollution prevention guidelines and environmental protection legislation to mitigation any impacts of ground disturbance, surface water flow, dust and chemicals.

10.1.2 In the long term to compensate for the loss of areas of grassland and the scattered trees on site and to enhance the site's overall value for biodiversity, the retained habitats on site should be enhanced. The areas of grassland containing tall ruderal vegetation to be retained should be managed to provide a mosaic of habitats through low intensity management e.g. 2-3 cuts per year; consideration could be given to seeding grasslands with native seed mixes to increase the species diversity. Native trees should be planted along the eastern and northern boundary to fill any gaps. This will maximise the ecological value of the site, providing opportunities for a range of species including mammals, reptiles, amphibians, invertebrates and birds.

10.2 Bats

10.2.1 During construction, external lighting should be kept to a minimum as it can have an adverse impact on commuting and foraging bats (BCT & ILP 2023) and if security lighting is required, this should be controlled by passive infra-red motion sensors with no light spillage onto trees bordering the site.

10.2.2 In the long-term, dark corridors should be retained on site along the existing boundary, thereby maintaining foraging and commuting corridors for bats

across the site, i.e. trees neighbouring the site. A sensitive lighting scheme should be designed as part of the scheme to replace the floodlights. The lighting period should be restricted so that lighting operates only when necessary. The light fittings should be directional so that light is directed downwards onto the courts and shielded with reflector hoods to prevent upward and outwards light spill that may illuminate retained trees and vegetation of the site and so that the light is directed at the playing surfaces only. The lighting design should make use of lamps of the lowest possible intensity and use warm white LED lamps i.e. 2700k.

- 10.2.3** Low level lighting around the five-a-side pitches and car parking for security should be timed so that lighting only operates when necessary and should make use of low UV lamps e.g, warm LED lamps; motion-sensored lighting could be considered in some areas of the site.

10.3 Reptiles

- 10.3.1** To avoid the very small risk of contravening legislation and harming individual reptiles during the works, the following precautionary avoidance measures should be adopted during the construction phase:
- The grassland within the construction area should be kept short prior to the commencement of site work to minimise the likelihood of slow worm being present during the works, the grassland should be cut starting from the eastern grassland edge and working towards the western boundary to allow any reptiles if present to move to safety. Any vegetation in the development area should be kept closely mown during the course of the construction work;
 - During construction, any open excavations and trenches should be backfilled before nightfall or alternatively, escape ramps should be installed to allow individual slow worms (and other small animals) to escape if they become trapped;
 - Any building materials or materials excavated during the development that need to be stored on site prior to use/disposal should be positioned on hard standing and raised off the ground on pallets or in

skips to avoid them providing temporary resting places or hibernation sites for individual slow worms; and

- In the unlikely event that reptiles are encountered during the construction phase, the works will stop immediately and an ecologist will be called onto site to attend to the slow worm(s) and to advise on the next steps. This may be in the form of searching suitable habitat and translocating any individuals to the adjacent allotments and provision of reptile hibernacula on site.

10.4 Nesting Birds

- 10.4.1** The proposed removal of the trees on the western boundary should be timed to avoid the peak bird nesting (March to August inclusive) or after a check to confirm that birds are not nesting currently within the development area. If nesting birds are discovered during the course of the works, work should stop immediately and should continue only once the bird nesting has finished, i.e. young have fledged and left the nest.

10.5 Ecological Enhancement

- 10.5.1** The development proposals could provide opportunities for the enhancement of the site's biodiversity value and to deliver a net gain in biodiversity. The inclusion of the following recommendations would be of ecological benefit and be in line with the National Planning Policy Framework (NPPF):
- The aim of the landscaping across the site should be to increase the structural diversity and species diversity of the site. New planting will make use of native plant species of local provenance.
 - The provision of bird nest boxes at the eaves of the clubhouse on site for Priority Species such as the house sparrow (*Passer domesticus*).
 - The provision of external bat boxes on existing trees.
 - If fencing is replaced along the boundaries it should be designed to allow the free movement of wildlife such as hedgehogs.

11 BIODIVERSITY NET GAIN ASSESSMENT

11.1 Biodiversity Net Gain Assessment Approach

11.1.1 This Biodiversity Net Gain (BNG) assessment uses the Statutory Biodiversity Metric (February 2024) to calculate the losses and gains in biodiversity unit value resulting from the proposed redevelopment. The metric tool has been used to guide the proposed site layout and landscaping to deliver an overall net gain for the project.

11.1.2 The biodiversity metric rules must be followed for a valid biodiversity net gain and are as follows:

***Rule 1:** The trading rules of this biodiversity metric must be followed.*

***Rule 2:** Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.*

***Rule 3:** To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.*

The tools remove the need for a user to manually calculate the change in biodiversity value.

The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.

***Rule 4:** In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.*

11.1.3 The biodiversity metric principles inform the use of the biodiversity metric tool and are as follows:

***Principle 1** - The metric assessment should be completed by a competent person.*

***Principle 2** - The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.*

Principle 3 - *This biodiversity metric should be used in accordance with established good practice guidance and professional codes.*

Principle 4 - *This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.*

Principle 5 - *Biodiversity units are a proxy for biodiversity and should be treated as relative values.*

Principle 6 - *This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.*

Principle 7 - *Habitat interventions need to be realistic and deliverable within a relevant project timeframe.*

Principle 8 - *Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.*

Principle 9 - *This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:*

- *maintain habitat extent - supporting more, bigger, better and more joined up ecological networks.*
- *ensure that proposed or retained habitat parcels are of sufficient size for ecological function.*

11.2 Baseline Habitats

11.2.1 The UK Habitat Classification (UKHab) habitats observed during the site walkover and their assigned condition are listed in **Table 1**; a plan of the baseline UK Habitat Classification habitats for the Statutory Biodiversity Metric calculation (Metric available in a separate spreadsheet) is presented in **Appendix 1** and the completed habitat condition assessment sheets are in a separate document '*Millworth Recreation Ground – Condition Assessment Sheets (R1658_BNG_a)*'.

Table 1. Baseline on-site habitats for the Biodiversity Metric calculation.

Habitat Type (UKHab code)	Condition	Distinctiveness	Strategic Significance	Area (ha)
Modified grassland (g3c)	Poor	Low	Medium	1.57
Buildings (u1b5)	N/A	Very Low	Low	0.3145
Built linear feature (u1e)	N/A	Very Low	Low	0.1184
Lowland mixed deciduous woodland (w1f)	Moderate	High	Medium	0.2958
Individual trees	Moderate	Medium	Medium	0.0244
Total area (excluding individual trees)				2.73
Linear Habitat Type (UKHab code)	Condition	Distinctiveness	Strategic Significance	Length (km)
Native hedgerow trees with (h2a6)	Moderate	Low	Medium	0.229
Total length				0.229

11.3 Proposed Habitats

11.3.1 The proposed habitats to be created, and their proposed conditions, are set out in **Table 2** and in the proposed habitat plan below and descriptions of the proposed habitats to be created through planting or enhancement as follows:

Table 2. Proposed on-site habitats for the Biodiversity Metric calculation.

Habitat Type (UKHab code)	Delivery	Condition	Distinctiveness	Strategic Significance	Area (ha)
Modified grassland (g3c)	Retention & creation	Poor	Low	Low	0.892
Buildings (u1b5)	Retention & creation	N/A	Very Low	Low	0.3156
Built linear feature (u1e)	Retention & Creation	N/A	Very Low	Low	0.451
Artificial, unvegetated surface (u1c)	Creation	Very Low	Low	Low	0.1808
Other neutral grassland (g3c)	Enhancement	Good	Medium	Low	0.3546
Lowland mixed woodland (w1f)	Retention	Moderate	High	Medium	0.2958
Other broadleaved woodland (w1g)	Creation	Poor	Medium	Medium	0.0259
Individual trees	Creation	Poor	Medium	Medium	0.0733
Total area (excluding individual trees)					2.72

Linear Habitat Type (UKHab code)	Delivery	Condition	Distinctiveness	Strategic Significance	Length (km)
Native hedgerow with trees (h2a)	Enhancement	Good	Medium	Medium	0.229
Total length					0.229

Other neutral grassland (g3c)

- 11.3.2** 0.35 hectares of modified grassland will be enhanced to other neutral grassland i.e. with at least 9 species per m² through changed management to reduce cutting to 2-3 times per year, and supplementary scarification of the turf and seeding with a native flowering species mix such as the Emorsgate EM4 mix for clay soils. The grassland is predicted to achieve good condition through management to create a species and structurally diverse sward in the time to target condition.

Other broadleaved woodland (w1g)

- 11.3.3** There will be new planting of woodland (0.0259ha) on the margins of the existing woodland to extend that to the west. The woodland will be created through the planting of mix of native trees and shrubs appropriate to the existing woodland and nearby woodlands and include species such as oak (*Quercus robur*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), rowan (*Sorbus aucuparia*) and field maple (*Acer campestre*).
- 11.3.4** The newly planted trees and shrubs will require minimal management and maintenance beyond the initial planting and care. Each tree will be mulched to suppress competition from weeds using locally sourced wood chips (the use of compost or plastic mulch should be avoided). The trees will be given an initial soak with water and should only be watered again in a period of drought if necessary.
- 11.3.5** Stakes and ties will be used to support the newly planted trees and will be inspected monthly and adjusted/replaced as necessary; the use of plastic spirals and tree guards will be avoided. The trees will be firmed in after strong winds or heavy frosts as necessary. Tree and shrub health will be assessed monthly in the first year and replacement trees will be planted if any fail.
- 11.3.6** The woodland will be in poor condition within the time to target condition.

Individual trees

- 11.3.7** Eighteen individual native trees will be planted on site. These will comprise a range of smaller native trees such as field maple and rowan.
- 11.3.8** The newly planted trees and shrubs will require minimal management and maintenance beyond the initial planting and care. Each tree will be mulched to suppress competition from weeds using locally sourced wood chips (the use of compost or plastic mulch should be avoided). The trees will be given an initial soak with water and should only be watered again in a period of drought if necessary.
- 11.3.9** Stakes and ties will be used to support the newly planted trees and will be inspected monthly and adjusted/replaced as necessary; the use of plastic spirals and tree guards will be avoided. The trees will be firmed in after strong winds or heavy frosts as necessary. Tree and shrub health will be assessed monthly in the first year and replacement trees will be planted if any fail.
- 11.3.10** The trees will be small and in poor condition within the time to target condition.

Native hedgerow with trees

- 11.3.11** The existing native hedgerows with trees will be enhanced with infill native tree and shrub planting including species including hawthorn, hazel, field maple, blackthorn, dogwood (*Cornus sanguinea*) and guelder rose (*Viburnum opulus*).
- 11.3.12** The newly planted trees and shrubs will be mulched to suppress competition from weeds using locally sourced wood chips (the use of compost or plastic mulch should be avoided). The newly planted hedgerow will be given a

good initial soak with water and should only be watered again in a period of drought if necessary.

11.3.13 The use of plastic spirals and tree guards on the newly planted shrubs will be avoided. Any plants that fail due to browsing pressure will be replaced in the next suitable planting season during the five years of this plan.

11.3.14 Weed control will be carried out along the base of the newly planted hedgerow until the shrubs have become established; the use of herbicides will be avoided for environmental reasons. If aggressive weeds (i.e. cleavers, nettles, bracken and creeping bent) are swamping the young shrubs, they will be cut back using garden shears or pulled out by hand.

11.3.15 The hedgerow shrubs will be cut back two years after establishment to a half of their height to encourage the development of multiple stems and vigorous growth. Thereafter, the hedgerow will be trimmed every two years, each time raising the cutting height by 10cm. Once the shrubs reach 2-3m in height, with stems 5-10cm in width, they will be laid to rejuvenate the hedgerow and then the trimming regime can resume.

11.3.16 The management will enhance the hedges to good condition in the time to target condition.



Millworth Recreation Ground Shinfield

Proposed Habitat Plan

Key:

- Red Line Boundary
- h2a6 Native hedgerow with trees
- u1b Developed land; sealed surface
- g4 Modified grassland
- Artificial unvegetated, unsealed surface
- Built linear features
- Other neutral grassland
- Lowland mixed deciduous woodland
- Other woodland; broadleaved
- Proposed Small Rural Tree
- Lost Rural Tree

Mapped by: John Wenman MCIEEM

Date: July 2024

JOHN WENMAN
ecological consultancy

11.4 Biodiversity Net Gain Result

11.4.1 The Biodiversity Metric calculation tool demonstrates that a minimum 10% on-site net gain for biodiversity can be achieved as part of the proposals. A total on-site net change of +10.25% in habitat units and 43.36% in hedgerow units can be achieved as shown in the 'Headline Results' section taken from the Metric spreadsheet – as seen in the metric extract below.

Millworth Recreation Ground

Headline Results

Scroll down for final results ▲

Return to results menu

On-site baseline	Habitat units	7.95			
	Hedgerow units	1.83			
	Watercourse units	0.00			
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	8.77			
	Hedgerow units	2.63			
	Watercourse units	0.00			
On-site net change (units & percentage)	Habitat units	0.81	10.25%		
	Hedgerow units	0.79	43.36%		
	Watercourse units	0.00	0.00%		
Off-site baseline	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site net change (units & percentage)	Habitat units	0.00	0.00%		
	Hedgerow units	0.00	0.00%		
	Watercourse units	0.00	0.00%		
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.81			
	Hedgerow units	0.79			
	Watercourse units	0.00			
Spatial risk multiplier (SRM) deductions	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
FINAL RESULTS					
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.81			
	Hedgerow units	0.79			
	Watercourse units	0.00			
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	10.25%			
	Hedgerow units	43.36%			
	Watercourse units	0.00%			
Trading rules satisfied?	Yes ✓				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	7.95	8.75	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	1.83	2.02	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

12 REFERENCES

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APPENDIX 1 – LEGISLATIVE BACKGROUND

Amphibians

The seven native species of amphibian receive protection under the W&AC 1981 (as amended). The four widespread and common amphibians (common frog, toad, smooth newt and palmate newt) receive only limited protection – making their sale illegal.

The great crested newt (*Triturus cristatus*) receives full protection under the W&CA 1981 (as amended) and under the Habitat Regulations 2019. The combined legislation makes it illegal to:

- intentionally or recklessly kill, injure or take a great crested newt;
- possess or control any live or dead specimen or anything derived from a great crested newt;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- intentionally or recklessly disturb great crested newts; in particular, any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

Great crested newts (*T. cristatus*) and common toads (*Bufo bufo*) are species of principal importance for the conservation of biodiversity in England ('UKBAP Priority Species') under Section 41 of the NERC Act 2006.

Badgers

Badgers are protected by the Protection of Badgers Act 1992. The Act makes activities such as development that would harm or disturb badgers or damage, obstruct or destroy their setts illegal. If badgers are to be affected by the proposed

development, activities can be undertaken only under a licence issued by Natural England.

Bats

All bat species in Britain are fully protected by the W&CA 1981 (as amended) and by the Habitat Regulations 2019. In summary, the combined legislation makes it an offence to:

- damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- deliberately, intentionally or recklessly disturb bats; in particular, any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to significantly affect the local distribution or abundance of the species; and
- deliberately kill, injure or take any bat.

Birds

All wild birds are protected under the W&CA 1981 (as amended). The Act makes it an offence to kill, injure or take a wild bird or to damage or destroy the nest of a wild bird whilst in use or being built. Species listed on Schedule 1 of the Act, such as barn owls and kingfishers, are afforded additional protection against disturbance while nesting.

Hazel dormice

Hazel dormice receive full protection under the W&CA 1981 (as amended) and under the Habitat Regulations 2019. These make it illegal to:

- intentionally or recklessly kill, injure or take a dormouse;
- possess or control any live or dead specimen or anything derived from a dormouse;
- damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a dormouse; and
- intentionally or recklessly disturb dormice; in particular, any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to

hibernate or migrate.

Invasive non-native plants

The W&CA 1981 (as amended) provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under Section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II. The species listed in the Act include Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*).

Otters

Otters are fully protected by the W&CA 1981 (as amended) and by the Habitat Regulations 2019. In summary, the combined legislation makes it an offence to:

- damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by an otter;
- deliberately, intentionally or recklessly disturb otters; in particular, any disturbance which is likely to impair the ability of otters to survive, breed or reproduce or nurture their young; or to significantly affect the local distribution or abundance of the species; and
- deliberately kill, injure or take any otter.

Reptiles

The four widespread reptiles most likely to be encountered (adder, grass snake, slow worm and common lizard) are protected under the W&CA 1981 (as amended). The Act makes it an offence to intentionally kill, injure, possess or sell any of the species.

The aforementioned species are all listed as being of principal importance for the conservation of biodiversity in England ('*UKBAP Priority Species*') under Section 41 of the NERC Act 2006.

Water voles

Since April 2008, water voles have received full protection under Section 9 in Schedule 5 of the W&CA 1981 (as amended). This makes it an offence to intentionally kill, injure or take water voles or to possess or control live or dead water voles or derivatives. It is an offence to intentionally or recklessly damage, destroy or

obstruct access to any structure or place used for shelter or protection or intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.

The water vole is listed as being of principal importance for the conservation of biodiversity in England (*'UKBAP Priority Species'*) under Section 41 of the NERC Act 2006.

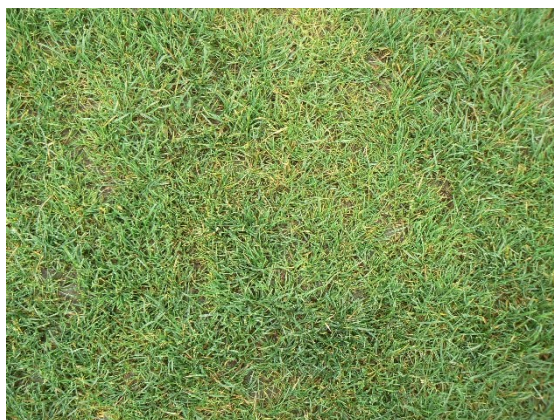
Wild mammals

Under the Wild Mammals (Protection) Act 1996 it is an offence to intentionally inflict unnecessary suffering, as specified by the Act, on any wild mammal.

APPENDIX 2 - SITE PHOTOGRAPHS



1. Recreation sports pitch of modified grassland (g4 180 frequently mown, 820 natural sports pitch).



2. Main pitch area predominantly perennial rye grass (g4).



3. Oak tree to be removed in proposed plans (TN1).



4. Rowan tree to be removed in proposed plans (TN2).



5. Beech tree to be removed in proposed plans (TN3).



6. Ruderal habitat (81) under tree canopy.



7. Ruderal habitat (81) under tree canopy, adjacent to allotment compost piles, divided by chain link fencing.



8. Additional species at edge of sports pitch next to the tennis courts. (g4)



9. Ruderal habitat (81) between pavilion and western corner storage structures (g4).



10. Native hedgerow (h2a) with scattered trees (32) on south-western boundary.



11. Native hedgerow (h2a) with scattered trees (32) on south-western boundary.



12. Wet ditch on southern boundary, outside of site red line (r1 drainage ditch).



13. Lowland mixed deciduous woodland (w1f).



14. Woodland including elder and dog rose.



15. Typical flora of woodland habitat (w1f).



16. Standing dead tree on edge of woodland, providing potential bat roosting opportunity.



17. Car parking area at northern corner of site (u1b).



18. Car parking area at eastern corner of site (u1b).



19. Ruderal perimeter strip in norther car parking area, adjacent to allotments divided by chain link fence.



20. Hardstanding area used for equipment storage south of pavilion (u1b)



21. Tennis courts surrounded by chain link fencing (u1b).



22. Playground area with equipment (u1b).

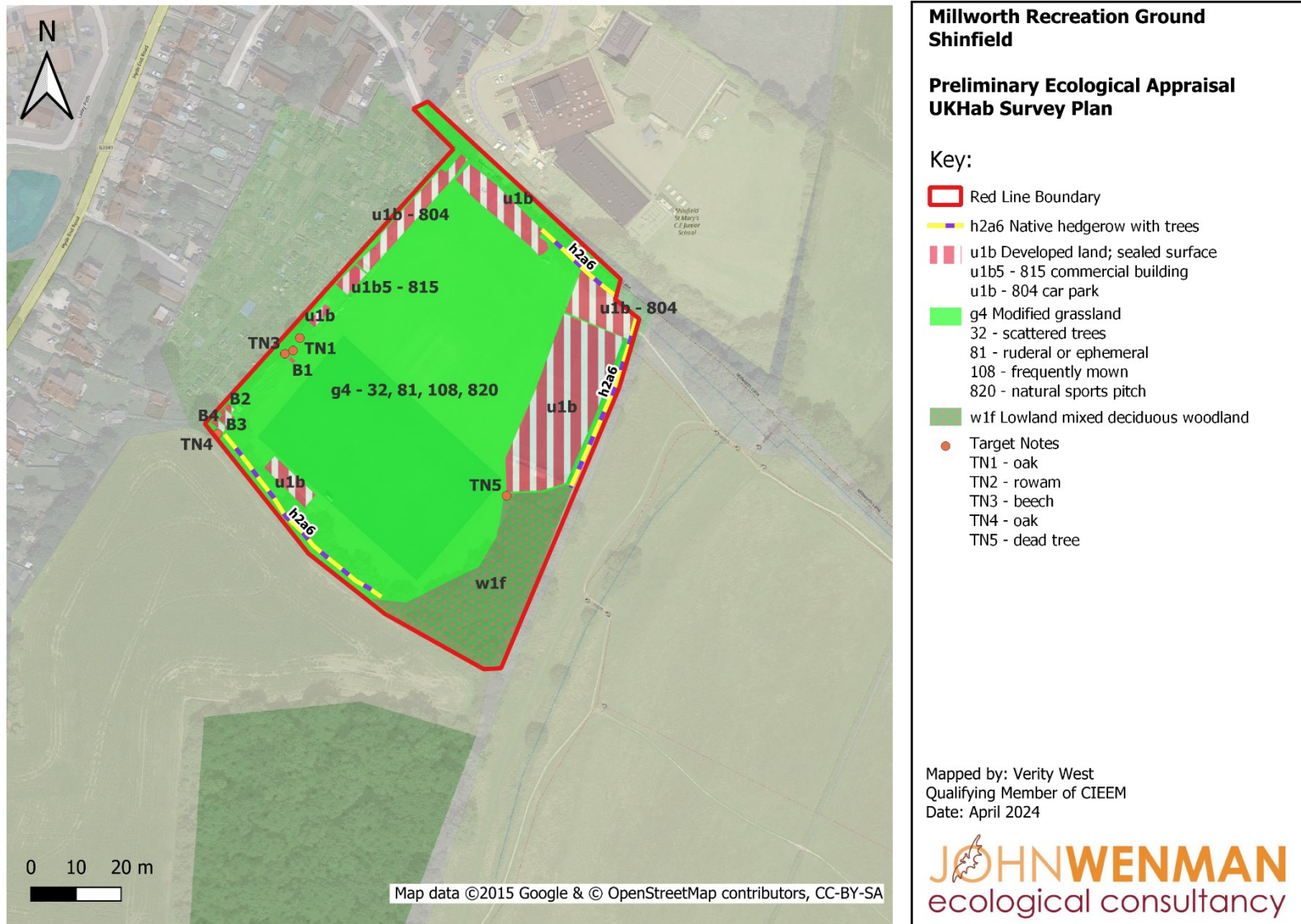


23. Main pavilion clubhouse (u1b5).



24. Storage structures in western corner (u1b5).

APPENDIX 3 – UK HABITAT CLASSIFICATION SURVEY PLAN

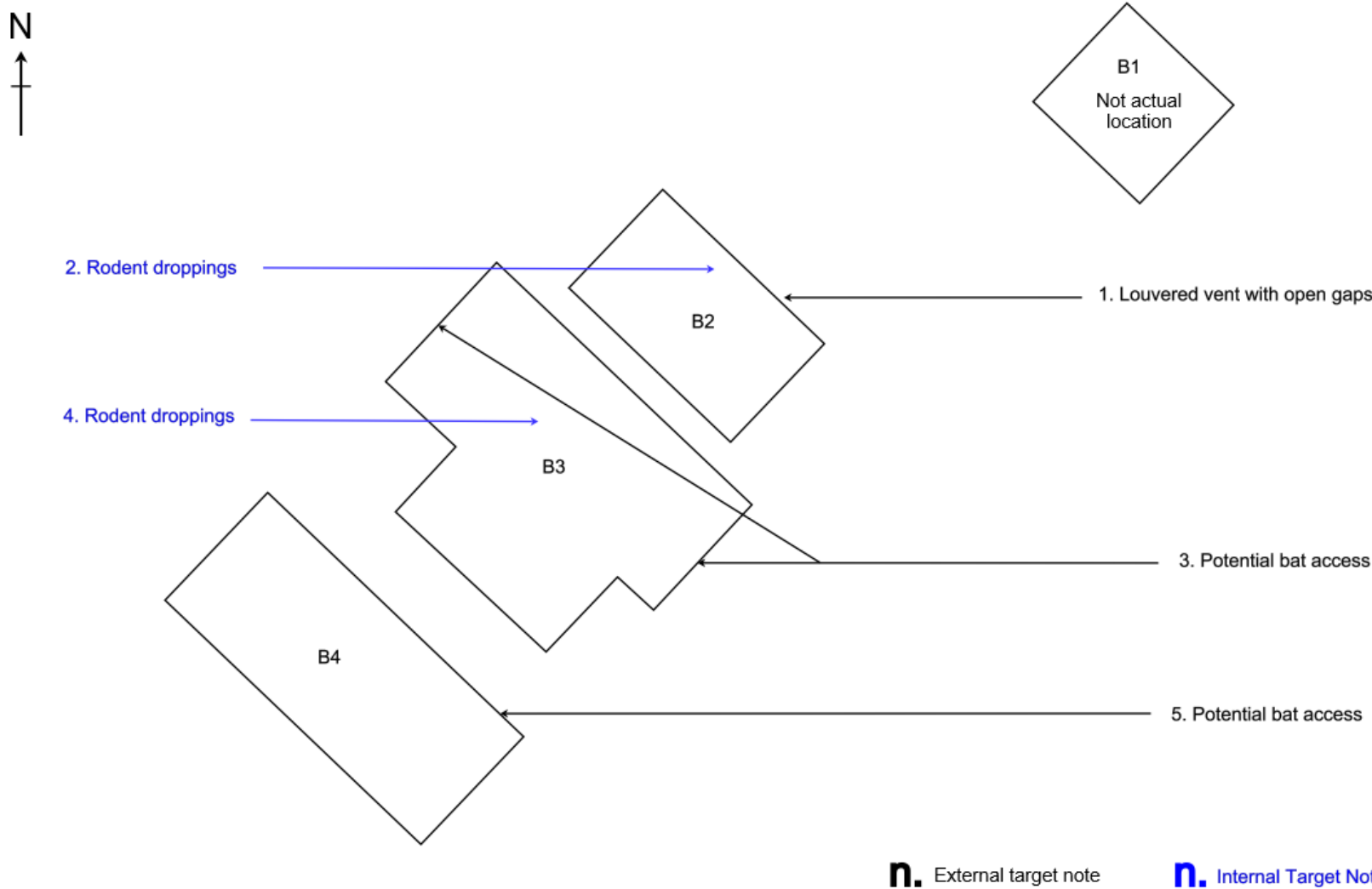


APPENDIX 4 – EXISTING SITE PLAN



[illegible]

APPENDIX 5 – PRELIMINARY BAT ROOST ASSESSMENT BUILDING PLAN



Drawn by:	Date:	Scale:	Millworth Rec Ground Shinfield	
VW	May 2024	Not to scale	Preliminary Roost Assessment Plan	