Aros Architects

Hampton Wick Cricket Club – Pavilion Rebuild

Preliminary Ecological Appraisal

Final report
Prepared by LUC
May 2024

Aros Architects

Hampton Wick Cricket Club – Pavilion Rebuild Application

Preliminary Ecological Appraisal

Project Number
12840

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Contents

Chapter 1
Introduction

Scope

1.1 In March 2024, LUC was appointed by Aros Architects to undertake a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) Assessment of land located at Bushy Park, Park Rd, Hampton Wick, Kingston upon Thames, KT1 4AZ (hereafter referred to as 'the Site'). This survey was required to inform the Pavilion Rebuild Application in order to provide a new pavilion for the Hampton Wick Royal Cricket Club.

1.2 The PEA comprised a Desk Study and an Extended Phase 1 Habitat Survey, which included a classification of the Site's constituent habitats and a consideration of its suitability for protected and notable faunal and floral species. This also included a daytime inspection of the buildings and trees within the Site for their Bat Roost Suitability (BRS).

1.3 This report presents the baseline survey findings and identifies initial constraints with a view to informing a sensitive scheme design, avoidance of impacts, potential mitigation requirements and enhancement opportunities.

1.4 A BNG assessment has also been completed and is reported on separately[1]

1.5 This report has been prepared for the exclusive use of Aros Architects. No part of this report should be considered as legal advice.

Site Description

1.6 The Site is located within the second largest of London's Royal Parks, Bushy Park, and is currently used by Hampton Wick Royal Cricket Club for sports activities (central grid reference: TQ 17066 69435). At the time of survey on 5th March 2024, the Site comprised amenity grassland, hardstanding and buildings, a tree line (TL1), two small areas of improved grassland, broadleaved scattered trees, and areas of bare ground, dead monoliths, and soil mound.

1.7 The Site was bordered to the north by an allotment, to the west by Park Rd., to the east by an unpaved footpath within the wider Bushy Park, and to the south by a paved footpath also within the wider Bushy Park. The surrounding landscape was varied and comprised grassland habitats,

[1] LUC (2024). Hampton Wick Cricket Club – Pavilion Rebuild Biodiversity Net Gain Assessment. LUC, London

woodland copses and trees, ponds, hedgerows, allotments, farmland grazed by cattle, sport pitches, and buildings and hardstanding.

Project Description

1.8 The project will involve building a new cricket pavilion. This would be approximately of the same size and footprint as the previous burnt down pavilion to allow cricket games and associated activities run by Hampton Wick Royal Cricket Club to continue, and to provide users with more permanent facilities.

Policy and Legal Considerations

1.9 This report has been prepared in cognisance of relevant legislation and policy. Further detail is provided in **Appendix A**. The primary documents of relevance are outlined below:

- The Wildlife and Countryside Act of 1981 (as amended)[2]
- The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended)[3]
- The Natural Environment and Rural Communities Act (NERC Act), 2006[4]
- The Conservation of Habitats and Species Regulations 2017[5]
- The Protection of Badgers Act 1992[6]
- The National Planning Policy Framework (updated December 2023)[7]
- The London Borough of Richmond upon Thames Adopted Local Plan (2018)[8]
- The London Biodiversity Action Plan.[9]

[2] Wildlife and Countryside Act 1981. Available at: http://www.legislation.gov.uk/ukpga/1981/69/contents
[3] The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended. Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents
[4] The Natural Environment and Rural Communities Act (NERC Act), 2006. Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents.
[5] The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). Available at: https://www.legislation.gov.uk/uksi/2017/1012/regulation/8/made
[6] The Protection of Badgers Act 1992. Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents.
[7] Gov.UK (2023) National Planning Policy Framework. Department for Levelling Up, Housing & Communities, London.
[8] London Borough of Richmond upon Thames (2018). Local Plan, London, Richmond upon Thames.
[9] City of London (2021) Biodiversity Action Plan 2021-2026.

Chapter 2
Methods

2.1 The methods adopted in the baseline survey are outlined below. They are in accordance with best practice guidance documents produced by the Chartered Institute of Ecological and Environmental Management[10], the British Standard Institute[11], and best practice guidelines in relation to bats[12]

Desk Study

2.2 To provide additional background to the PEA and highlight likely features or species groups of interest, a review of biological records was undertaken to identify sites designated for their nature conservation value, and existing records of protected or notable species of relevance to the Site. A search of the following resources was undertaken within the following radius from the Site:

- Green Space Information for Greater London (GiGL) to identify existing records of protected or notable species within 1km and non-statutory designated sites within 2km of the Site's central grid reference;
- Multi-Agency Geographical Information for the Countryside (MAGIC) to identify statutory designated sites within 5km of the Site's central grid reference;
- Ordnance Survey (OS) mapping; and
- Aerial photography.

2.3 The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

[10] CIEEM (2017) Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Chartered Institute for Ecology and Environmental Management, Winchester.
CIEEM (2015) Guidelines on Ecological Report Writing. Chartered Institute for Ecology and Environmental Management, Winchester.
CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, and Coastal and Marine. Chartered Institute for Ecology and Environmental Management, Winchester.

[11] BSI (2013) Biodiversity – code of practice for planning and development, BS 42020:2013. British Standards Institution, Bristol.

[12] Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.
Mitchell-Jones, A.J. and McLeish, A.P. (2004) Bat Workers' Manual. 3rd Edition. JNCC, Peterborough.
Andrews H. (2018) Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key. Pelagic Publishing, Exeter.

Extended Phase 1 Habitat Survey

2.4 An Extended Phase 1 Habitat Survey was undertaken at the Site following standard methods[13]. Phase 1 Habitat Survey provides a rapid means of classifying broad habitat types in any given terrestrial site. The method was used within the Site boundary.

2.5 The survey was 'extended' by considering the suitability of the Site to support protected or notable species, as well as the presence of any invasive species. Species considered included those identified during the Desk Study, or those considered appropriate by the surveyor during the survey. Detailed surveys were not completed for these species; however, based on an understanding of species ecology, consideration was given to the Site's potential to provide sheltering or foraging habitat. Suitability for each species was considered according to current good practice guidance[5].

2.6 The Extended Phase 1 Habitat survey was undertaken on 5th March 2024, during mild and cloudy weather conditions. The survey was completed by Pedro Freitas BSc MSc Qualifying Member of CIEEM.

2.7 An extended Phase 1 Habitat Map of the Site can be found in **Appendix B, Figure 1**.

Bat Roost Potential (BRP) and Potential Roosting Feature (PRF) Survey

Daytime Assessment of Bat Roost Suitability

2.8 This assessment took place during the Extended Phase 1 Habitat Survey and comprised an external, ground-based inspection of the trees, structures, and buildings within and immediately adjacent to the Site. The trees were surveyed for PRFs and the structures and buildings were surveyed for BRSs. Close focusing binoculars were used to look for features which may support bat roosts, and evidence of bat activity. This was carried out with due consideration to good practice guidelines[12].

2.9 Bats may utilise several different roosts throughout the year and may only occasionally make use of any given feature, particularly cracks, crevices, and fissures. Any field signs confirming or indicating the presence of bats were recorded including the location, quantity and condition of any droppings and feeding remains, location of characteristic staining from urine and/or grease marks, and the location of clean, cobweb-free timbers, crevices, and holes.

2.10 The criteria used to categorise the PRFs for trees and BRS for structures and buildings are summarised in **Table 2.1** and **2.2** below and are based on best practice guidelines, as above.

Table 2.1: Bat Roost Suitability Categories in Relation to Buildings

Suitability	Description
Known or confirmed bat roost	Bats or evidence of bats recorded, both of recent and/or historic activity. **Works affecting a roost are licensable. Further survey (e.g. dusk emergence/dawn re-entry survey in accordance with best practice) is required to determine the bat species present, nature of roost and level of use before mitigation can be determined. Seasonal constraints may apply.**
High BRS	Features include holes, cracks or crevices that extend or appear to extend back to cavities suitable for bats. In buildings, examples include eaves, barge boards, gable ends and corners of adjoining beams, ridge and hanging tiles, behind roofing felt or within cavity walls. In trees, examples include rot holes, woodpecker holes, splits and flaking or raised bark which could provide roosting opportunities. Any ivy cover is sufficiently well-established and matted in a way that could create potential crevices beneath.

[13] Joint Nature Conservation Committee (1990). Handbook for Phase 1 Habitat Survey. JNCC, Peterborough.

Suitability	Description
	Further survey is required to determine whether or not bats are present and if so, the bat species present, nature of roost and level of use. Appropriate mitigation and potentially licensing requirements may then be determined. Seasonal constraints may apply.
Moderate BRS	As per Category 1 but tree or building supporting fewer, though still suitable, features or with potential only for use by single bats. **Further survey is required to determine whether or not bats are present and if so, the bat species present, nature of roost and level of use. Appropriate mitigation and potentially licensing requirements may then be determined. Seasonal constraints may apply.**
Low BRS	From the ground, building/tree appears to have features (e.g. holes, cavities, or cracks) that may extend back into a cavity. However, owing to the characteristics of the feature, they are deemed to be sub-optimal for roosting bats. Alternatively, if no features are visible but owing to the size and age and structure, hidden features, sub-optimal for roosting bats, may occur that only an elevated inspection may reveal. In respect of ivy cover, this is not dense (i.e. providing BRS in itself) but may mask presence of BRP features. **Further survey is required in relation to buildings to determine whether or not bats are present and if so, the bat species present, nature of roost and level of use. Appropriate mitigation and potentially licensing requirements may then be determined. Seasonal constraints may apply.**
Negligible BRS	An inspected building/tree that is considered not to have potential for roosting bats. No further survey or mitigation required.

Table 2.2: Potential Roosting Feature Categories

Potential Roosting Feature Category	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF-I	PRF is only suitable for individual bats or very small numbers of bats due to size or lack of suitable surrounding habitat
PRF-M	PRF is suitable for multiple bats and may therefore be a maternity colony

Nesting Birds

2.11 During the Extended Phase 1 Habitat survey the Site was also assessed for its suitability to support nesting birds.

Limitations and Constraints

General Limitations

2.12 It is important to note that ecological surveys provide information regarding the ecological baseline of a site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Therefore, if a year lapses between the progressions of development proposals, it is recommended that ecological advice is sought regarding the applicability of the survey findings, in cognisance with advice given by CIEEM on the lifespan of ecological reports and surveys[14].

[14] CIEEM (2019). Advice Note: On the Lifespan of Ecological Reports and Surveys. Chartered Institute for Ecology and Environmental Management, Winchester.

Chapter 3
Results

3.1 The findings of the desk study are presented in the tables below. **Table 3.1** summarises European statutory designated sites within 5km, UK statutory designated sites within 5km and non-statutory designated sites within 2km of the Site. Table 3.2 summarises records of protected and notable species of relevance to the Site within 1km.

Table 3.1: Statutory and non-Statutory designated sites

Site Name and Designation	Description	Distance from the Site (m)
Statutory Designated Sites within 5km		
Bushy Park and Home Park SSSI	Designated due to its large population of ancient and veteran trees, extensive areas of semi-natural lowland dry acid grassland, and internationally significant populations of rare invertebrates.	Within part of the Site to Southeast
Richmond Park SAC, SSSI	It is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition, the park supports the most extensive area of dry acid grassland in Greater London. It is designated as a SAC due to the large number of ancient trees with decaying timber. It is also at the heart of the south London centre of distribution for stag beetle.	2300m Northeast
Wimbledon Common SAC, SSSI	Wimbledon Common has a large number of old trees and much fallen decaying timber. It is at the heart of the south London centre of distribution for stag beetle *Lucanus cervus*. The site supports a number of other scarce invertebrate species associated with decaying timber.	4700m Northeast
Knight & Bessborough Reservoirs SSSI	Knight Reservoir and Bessborough Reservoirs are part of the Southwest London Waterbodies and support many wildfowl, including nationally important numbers of wintering shovelers and substantial populations of gadwalls,	4700m Southwest

Site Name and Designation	Description	Distance from the Site (m)
	cormorants *Phalacrocorax Carbo* and goldeneyes *Bucephala clangula*.	
Southwest London Waterbodies Ramsar, SPA	Comprises a number of reservoirs and former gravel pits in the Thames Valley adjacent to Heathrow Airport between Windsor and Hampton Court which support internationally important numbers of Gadwall *Mareca strepera* and Shoveler *Spatula clypeata*.	4700m Southwest and 4900m North West
Kempton Park Reservoirs SSSI	A Site of Special Scientific Interest in the London Borough of Hounslow and Kempton Park in Surrey. It is owned by Thames Water. It is part of Southwest London Waterbodies Ramsar site and Special Protection Area. Kempton Park East reservoir is also a local nature reserve.	4900m Northwest
Non-statutory Designated Sites within 2km		
Bushy Park and Home Park SINC (Metropolitan)	This area provides an extensive and varied open space on the edge of London. The parks contain several nationally scarce plants, as well as a variety of wetlands and some fine old trees.	Adjacent to Site to the North, West, and South
River Thames and Tidal Tributaries SINC (Metropolitan)	The Thames, London's most famous natural feature, is home to many fish and birds, creating a wildlife corridor running right across the capital.	435m Southeast
The Copse at Hampton Wick and Normansfield Hospital SINC (Local)	A wooded nature reserve and the landscaped grounds of a former hospital.	594m Northeast
Hogsmill River in Central Kingston SINC (Local)	The final stretch of the River Hogsmill before it flows into the River Thames.	632m Southeast
Seething Wells Filter Beds SINC (Borough I)	The remains of the old Surbiton Water Works, next to the Thames, frequented by wintering wildfowl and other birds seeking refuge from the comparatively exposed river. Plant species usually associated with the North Downs grow on the chalk grassland. The site is very important for its resident Daubenton's bats *Myotis daubentonii*, which are protected and a London Biodiversity Action Plan priority species.	1000m Southeast
Hogsmill Valley Sewage Works and Hogsmill River SINC (Borough I)	This site includes an active sewage works and the adjacent River Hogsmill, part of which is managed by Thames Water as a nature reserve. It is an	1400m Southeast

Site Name and Designation	Description	Distance from the Site (m)
	important site for birds, which use it for breeding, passage, and wintering.	
Ham Lands SINC (Metropolitan)	An attractive area of scrub and grassland beside the River Thames, well known for its remarkably diverse plant life.	1600m Northeast
Royal Park Gate Open Space SINC (Local)	A public park next to the River Thames and continuing northwards as Ham Lands.	1600m Northeast
Hampton Court House Grounds SINC (Local)	An attractive landscaped garden centred on a pond.	1600m Southwest
Churchyard of St Mary with St Alban, Teddington SINC (Local)	An attractive churchyard with colourful, flowery grassland and some large trees.	1600m Northwest
Kingston Cemetery SINC (Local)	A well-tended cemetery with one side bordering the Hogsmill River.	1800m Southeast

Table 3.2: Relevant Protected and Notable Species Records within 1km of the Site

Species Name	Status	Distance from Site (m)
Amphibians		
Common Frog *Rana temporaria*	HSD5 LPS	983m West
Common Toad *Bufo bufo*	HSD5 LPS	983m West
Birds		
Grey Partridge *Perdix perdix*	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	179m Northwest
Skylark *Alauda arvensis*	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	202m West
Whimbrel *Numenius phaeopus*	W&CA Sch1 Part 1 Bird-Red	317m West
Red-backed Shrike *Lanius collurio*	Birds Dir Anx 1 W&CA Sch1 Part 1 Bird-Red	437m West

Species Name	Status	Distance from Site (m)
Goldeneye *Bucephala clangula*	Bird-Red	448m Northwest
Wood Warbler *Phylloscopus sibilatrix*	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	519m West
Little Egret *Egretta garzetta*	Birds Dir Anx 1	530m West
Wryneck *Jynx torquilla*	W&CA Sch1 Part 1	538m West
Lapwing *Vanellus vanellus*	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	554m West
Red Kite *Milvus milvus*	Birds Dir Anx 1 W&CA Sch1 Part 1	587m Northwest
Twite *Linaria flavirostris*	Bird-Red	708m Northeast
Arctic Tern *Sterna paradisaea*	Birds Dir Anx 1	753m West
Common Tern *Sterna hirundo*	Birds Dir Anx 1	774m West
House Martin *Delichon urbicum*	LPS Bird-Red	829m West
Reed Bunting *Emberiza schoeniclus*	NERC Act Section 41 Local Spp of Cons Conc	829m West
Redwing *Turdus iliacus*	W&CA Sch1 Part 1	829m West
Mistle Thrush *Turdus viscivorus*	LPS Local Spp of Cons Conc Bird-Red	865m West
Turtle Dove *Streptopelia turtur*	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	898m West
Gadwall *Mareca strepera*	LPS	956m West
Goshawk *Accipiter gentilis*	W&CA Sch1 Part 1	Confidential
Tree Pipit *Anthus trivialis*	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	Confidential
Pochard *Aythya ferina*	LPS Local Spp of Cons Conc	Confidential

Species Name	Status	Distance from Site (m)
	Bird-Red	
Nightjar *Caprimulgus europaeus*	Birds Dir Anx 1 NERC Act Section 41	Confidential
Cetti's Warbler *Cettia cetti*	W&CA Sch1 Part 1	Confidential
Little Ringed Plover *Charadrius dubius*	W&CA Sch1 Part 1 LPS	Confidential
Hawfinch *Coccothraustes coccothraustes*	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	Confidential
Quail *Coturnix coturnix*	W&CA Sch1 Part 1	Confidential
Dartford Warbler *Curruca undata*	Birds Dir Anx 1 W&CA Sch1 Part 1	Confidential
Lesser Spotted Woodpecker *Dryobates minor*	LPS Local Spp of Cons Conc Bird-Red	Confidential
Corn Bunting *Emberiza calandra*	LPS Local Spp of Cons Conc Bird-Red	Confidential
Peregrine *Falco peregrinus*	Birds Dir Anx 1 W&CA Sch1 Part 1 LPS	Confidential
Hobby *Falco subbuteo*	W&CA Sch1 Part 1	Confidential
Golden Oriole *Oriolus oriolus*	W&CA Sch1 Part 1	Confidential
Bearded Tit *Panurus biarmicus*	W&CA Sch1 Part 1 LPS	Confidential
Black Redstart *Phoenicurus ochruros*	W&CA Sch1 Part 1 LPS Local Spp of Cons Conc	Confidential
Willow Tit *Poecile montanus*	Bird-Red	Confidential
Marsh Tit *Poecile palustris*	Local Spp of Cons Conc Bird-Red	Confidential
Garganey *Spatula querquedula*	W&CA Sch1 Part 1	Confidential
Barn Owl *Tyto alba*	W&CA Sch1 Part 1	Confidential

Species Name	Status	Distance from Site (m)
Fish		
Barbel *Barbus barbus*	HSD5	962m Southeast
Fungi		
Bog Bolete *Leccinum schistophilum*	Local Spp of Cons Conc RedList_GB-DD	829m Southeast
Higher Plants – Flowering Plants		
Northern Hawk's-beard *Crepis mollis*	NERC Act Section 41 RedList_GB-EN Nationally Rare	179m Northwest
True Fox-sedge *Carex vulpina*	NERC Act Section 41 RedList_GB-VU Nationally Rare	490m Northwest
Fringed Water-lily *Nymphoides peltata*	Local Spp of Cons Conc Nationally Scarce	490m Northwest
Clustered Clover *Trifolium glomeratum*	Local Spp of Cons Conc Nationally Scarce	580m Northwest
Mudwort *Limosella aquatica*	Local Spp of Cons Conc Nationally Scarce	898m West
Lower Plants - Algae		
Gutweed *Ulva intestinalis*	RedList_GB-CR	373m South
Invertebrates		
Bulrush Veneer *Calamotropha paludella*	Local Spp of Cons Conc Nationally Notable B	179m Northwest
Mottled Rustic *Caradrina morpheus*	NERC Act Section 41	179m Northwest
Small Copper *Lycaena phlaeas phlaeas*	LPS	289m South
Small Heath *Coenonympha pamphilus*	NERC Act Section 41 LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	295m South
Ear Moth *Amphipoea oculea*	NERC Act Section 41	418m Southwest
Broom Moth *Ceramica pisi*	NERC Act Section 41	418m Southwest

Species Name	Status	Distance from Site (m)
Small Square-spot *Diarsia rubi*	NERC Act Section 41	418m Southwest
August Thorn *Ennomos quercinaria*	NERC Act Section 41 LPS Local Spp of Cons Conc	418m Southwest
Rustic *Hoplodrina blanda*	NERC Act Section 41	418m Southwest
Waste Grass-veneer *Pediasia contaminella*	Local Spp of Cons Conc Nationally Notable B	418m Southwest
Hedge Rustic *Tholera cespitis*	NERC Act Section 41 LPS Local Spp of Cons Conc	418m Southwest
Feathered Gothic *Tholera decimalis*	NERC Act Section 41	418m Southwest
Oak Hook-tip *Watsonalla binaria*	NERC Act Section 41	418m Southwest
A True Bug *Anthocoris visci*	Local Spp of Cons Conc Nationally Notable B	437m West
An Ant, Bee, Sawfly or Wasp *Auplopus carbonarius*	Local Spp of Cons Conc Nationally Notable B	437m West
Brown Tree Ant *Lasius brunneus*	Local Spp of Cons Conc Nationally Notable A	437m West
A Mayfly *Ephemera lineata*	RedList_GB-VU	437m West
Marsh Pond Snail *Stagnicola palustris/fuscus/corvus*	RedList_GB-DD	448m Northwest
Scarce Chaser *Libellula fulva*	RedList_GB-Lr(NT)	470m Northwest
A True Fly *Mallota cimbiciformis*	Nationally Scarce	525m East
An Ant, Bee, Sawfly or Wasp *Cleptes nitidulus*	Local Spp of Cons Conc Nationally Notable A	731m Northwest
Sharp-collared Furrow Bee *Lasioglossum malachurum*	Local Spp of Cons Conc Nationally Notable B	731m Northwest
A True Fly *Dioxyna bidentis*	Nationally Notable	774m West
Forest Silver-stiletto *Pandivirilia melaleuca*	RedList_GB-Lr (NT)	876m West
An Ant, Bee, Sawfly or Wasp *Crossocerus distinguendus*	Local Spp of Cons Conc Nationally Notable A	884m Northwest

Species Name	Status	Distance from Site (m)
An Ant, Bee, Sawfly or Wasp *Hedychridium cupreum*	Local Spp of Cons Conc Nationally Notable B	884m Northwest
Lobe-spurred Furrow Bee *Lasioglossum pauxillum*	Local Spp of Cons Conc Nationally Notable A	884m Northwest
Reticulate Blood Bee *Sphecodes reticulatus*	Local Spp of Cons Conc Nationally Notable A	884m Northwest
Pantaloon Bee *Dasypoda hirtipes*	Local Spp of Cons Conc Nationally Notable B	920m Southeast
A Beetle *Hydrovatus clypealis*	Nationally Scarce	443m North
A Beetle *Uleiota planatus*	Nationally Notable A	623m West
Stag Beetle *Lucanus cervus*	Hab&Spp Dir Anx 2 NERC Act Section 41 LPS	656m Northwest
A Beetle *Enicmus rugosus*	Nationally Notable	749m West
A Beetle *Hypnogyra angularis*	Nationally Notable A	749m West
Tanner Beetle *Prionus coriarius*	Nationally Notable A	806m Northwest
A Beetle *Dexiogyia corticina*	Nationally Notable	876m West
A Beetle *Quedius truncicola*	Nationally Notable B	884m Northwest
A Beetle *Tychius pusillus*	Nationally Notable B	884m Northwest
A Beetle *Magdalis cerasi*	Nationally Notable B	924m West
Bats		
Noctule Bat *Nyctalus noctula*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	384m Northwest
Serotine *Eptesicus serotinus*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS	425m West

Species Name	Status	Distance from Site (m)
	Local Spp of Cons Conc RedList_GB-VU	
Nathusius's Pipistrelle *Pipistrellus nathusii*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	430m Northwest
Common Pipistrelle *Pipistrellus pipistrellus*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc	430m Northwest
Soprano Pipistrelle *Pipistrellus pygmaeus*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	430m Northwest
Brown Long-eared Bat *Plecotus auritus*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	455m Southwest
Lesser Noctule *Nyctalus leisleri*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	517m East

Species Name	Status	Distance from Site (m)
Daubenton's Bat *Myotis daubentonii*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc	517m East
Natterer's Bat *Myotis nattereri*	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc	517m East
Mammals (excl. bats)		
West European Hedgehog	NERC Act Section 41 LPS Local Spp of Cons Conc RedList_GB-VU	100m Northwest
European Water Vole *Arvicola amphibius*	W&CA Sch5 Sec 9.4a W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc RedList_GB-EN	424m Northwest
Eurasian Otter *Lutra lutra*	Hab&Spp Dir Anx 2 Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	739m Southeast
Eurasian Badger *Meles meles*	Protection of Badgers Act 1992	Confidential
Reptiles		
Grass Snake *Natrix helvetica*	W&CA Sch5 Sec 9.1k/i	352m South

Species Name	Status	Distance from Site (m)
	NERC Act Section 41 LPS Local Spp of Cons Conc	
Adder *Vipera berus*	W&CA Sch5 Sec 9.1k/i NERC Act Section 41 LPS Local Spp of Cons Conc	Confidential

Extended Phase 1 Habitat Survey

Site Description

3.2 Habitat descriptions are set out below. While considering this information, reference should be made to the Extended Phase 1 Habitat Map resented in **Figure 2, Appendix B** and target notes in **Table C.1, Appendix C**.

Amenity Grassland (J1.2)

3.3 The majority of the Site consisted of shortly mown amenity grassland located at the centre of the Site. This area was species-poor, lacking structural and floral diversity, and was kept short with a frequent mowing regime to allow sport activities to take place, such as cricket games.

3.4 This area of amenity grassland was dominated by perennial ryegrass ***Lolium perenne***, abundant white clover *Trifolium repens*, chickweed *Stellaria media*, moss *Brachythecium* sp., frequent ragwort *Jacobaea vulgaris*, common daisy *Bellis perennis*, dandelion *Taraxacum officinale* agg., ribwort plantain *Plantago lanceolata*, occasional creeping thistle *Cirsium arvense*, yarrow *Achillea millefolium*, and locally abundant red fescue *Festuca rubra* and cocksfoot *Dactylis glomerata*, bordering the sports field.

Buildings (J3.6) / Hardstanding (HS)

3.5 There were four building structures on Site comprised by the Cricket Pavilion, two storage buildings and a brick wall bordering the Site to northeast.

3.6 There was a paved road linking the main entrance of the Site to the Cricket Pavilion to the northeast and amenity grassland to the centre of the Site. There was also a small gravel footpath followed by a cement footpath next to the Cricket Pavilion. The paved road will be used as emergence and maintenance access as part of the proposals for the Pavilion Rebuild Application.

3.7 A further area comprised of hardstanding was located to the southwest of Site and was used as part of the cricket pitch and as storage area.

Tree line (TL)

3.8 A tree line (TL1) was noted to the northeast of the Site dominated by common lime *Tilia* × *europaea*, with occasional English elm *Ulmus procera*, silver pendent lime *Tilia petiolaris*, English oak *Quercus robur* and locust tree *Robinia pseudoacacia*.

Improved Grassland (B4)

3.9 Two areas of improved grassland were noted on Site, one to the northeast along a paved road and another located to southwest of Site surrounding the cricket pitch.

3.10 The area to northeast was dominated by cleavers Galium *aparine*, with frequent green alkanet *Pentaglottis sempervirens*, bramble *Rubus fruticosus* and cow parsley, and occasional common nettle *Urtica dioica*, ivy *Hedera helix* and dandelion. The area to southwest on the other hand had a higher sward height and was dominated by red fescue, perennial ryegrass and cocksfoot, with abundant common nettle, frequent ragwort and creeping bent, occasional dandelion, white clover, ribwort plantain, daisy, yarrow, spear thistle Cirsium vulgare and bramble, and rare soft rush *Juncus effusus*.

Broadleaved Scattered Trees (A3.1)

3.11 Broadleaved scattered trees were noted throughout the Site but mainly to the northeast of the Site. These comprised dominant immature holm oak *Quercus ilex*, frequent semi-mature and immature ash trees *Fraxinus excelsior* and semi-mature and immature English oak, and occasional semi-mature hawthorn (*Crataegus monogyna*) and immature elder *Sambucus nigra*.

Bare ground (J4)/Soil Mound (J5)/Dead Monoliths (J5)

3.12 Small areas of bare ground were noted throughout the Site within the areas of amenity grassland and improved grassland, with the most noticeable area being located within the improved grassland to southwest of Site.

3.13 A small patch comprising soil mound was found next to the two storage buildings (B2) to the northeast of Site.

3.14 Also, two horse chestnut *Aesculus hippocastanum* dead monoliths were noted to the northeast of the Site.

Invasive Non-native Species

3.15 Green alkanet and holm oak, which were identified by the London Invasive Species Initiative (LISI) as species of concern, were noted on Site to the northeast.

Protected and Notable Species

Bats

3.16 The following bat records were provided by GiGL within 1km of the Site:

- Noctule Bat *Nyctalus noctula*
- Serotine *Eptesicus serotinus*
- Nathusius's Pipistrelle *Pipistrellus nathusii*
- Common Pipistrelle *Pipistrellus pipistrellus*
- Soprano Pipistrelle *Pipistrellus pygmaeus*
- Brown Long-eared Bat *Plecotus auritus*
- Lesser Noctule *Nyctalus leisleri*
- Daubenton's Bat *Myotis daubentonii*
- Natterer's Bat *Myotis nattereri*

Habitat Appraisal

3.17 Some habitats present within the Site were considered suitable foraging and/or roosting habitats for bats.

3.18 The mature tree line (TL1) to the northeast of the Site and broadleaved scattered trees within the Site provided low to moderate foraging and commuting opportunities for a range of bat species. TL1 in particular was connected to other suitable habitats for bats in the wider landscape, contributing to the network of available commuting routes for bats.

3.19 Most grassland habitats within the Site and the immediate surroundings were kept short in order to allow cricket games and associated activities to take place and were of low suitability for bats due to a lack of structural and floral diversity (likely corresponding to a lack of abundance and diversity in insect prey). However, a small area located to the southwest of the Site and surrounding the cricket pitch, presented improved grassland with a longer sward, greater abundance and similar species diversity when compared to the other grassland habitats within the Site, thus, providing more foraging opportunities for bats.

3.20 The presence of small patches of bare ground and two horse chestnut dead monoliths also provided foraging opportunities for bats.

3.21 Given this information, it was determined the Site was of low to moderate suitability for commuting and foraging bats and so bats are considered further in this report.

Preliminary Bat Roost Assessment

3.22 The brick wall (S1), bordering the Site to northeast, presented areas where dense ivy cover could potentially be hiding bat roosting features such as crevices. These crevices can be used by opportunistic and widespread individual bat species or small groups of males as a day roost, to rest and shelter. S1 was therefore assessed as having low BRS.

3.23 The burnt down cricket pavilion (B1) located to the northeast of the Site as well as the two small storage buildings (B2) next to each other and in close proximity to B1 were assessed to have negligible BRS given they did not present any roosting features.

3.24 A number of trees in TL1 to the northeast of the Site as well as some broadleaved scattered trees were assessed to have PRF – I or PRF – M, due to the presence of crevice and cavity features within the trunks and branches, including knot holes, cracks and woodpecker holes.

3.25 Further information on the buildings and trees with BRS is provided in **Table 3.1** below. While reviewing this information, reference should be made to the **Trees Constraints Plan for the Site**[15].

[15] Canopy Consultancy (2024). Trees Constrains Plan, Surrey.

Table 3.3: Assessment of Built Structures and Trees with Bat Roost Suitability

Structure/ Tree Number	Location	Description of Bat Roost Suitability (BRS) Features	BRS Category
Structure			
B1	Northeast of Site	Building burnt down in September 2023 leaving it completely open and with no BRS features.	Negligible BRS
B2	Northeast of Site	The two storage buildings were in good repair and no BRS features were noted.	Negligible BRS
S1	Northeast of Site	Brick wall with dense ivy *Hedera* sp. cover potentially hiding BRS features.	Low BRS
T38	Northeast of Site	Mature Common Lime *Tilia X europaea* with knot hole 5m high and facing south aspect.	PRF - I
T37	Northeast of Site	Mature English Elm *Ulmus procera* with knot hole 4m high with no clear drop zone.	PRF - I
T35	Northeast of Site	Mature Silver Pendent Lime *Tilia petiolaris* with knot hole 5m high, knot hole partially cluttered 6.5m, and 3 knot holes 9m high all facing west and with clear drop zone and inner access.	PRF - M
T34	Northeast of Site	Mature Common Lime with multiple small knot holes facing west, south and east and suitable for a small roost.	PRF - I
T33	Northeast of Site	Mature Common Lime with multiple knot holes different at heights and facing South. Suitable for a small roost.	PRF - I

Structure/ Tree Number	Location	Description of Bat Roost Suitability (BRS) Features	BRS Category
T32	Northeast of Site	Mature Silver Pendent Lime with one knot hole facing south and 5m high.	PRF - I
T30	Northeast of Site	Mature Common Lime with knot hole facing west 12m high and 2 knot holes 9m high facing south, all with clear drop zone.	PRF - I
T28	Northeast of Site	Mature Common Lime with knot holes 4m high facing west, 3m, 3.5m and 5m high facing south, and 3m high facing east. Suitable for a small roost	PRF - I
T26	Northeast of Site	Mature Common Lime with woodpecker hole 11m high facing southwest, knot hole 4.5m high facing south, broken limb giving inner access 6m high facing east, and broken limb 6m high giving inner access but facing upwards. All features with clear drop zone.	PRF - M
T25	Northeast of Site	Mature Common Lime with multiple knot holes. Five knot holes were facing south and three of them had no clear drop zone at 2m, 2.5m, 3m and 3.5m high.	PRF - I
T24	Northeast of Site	Mature English Oak with small broken limb 2m high and facing west.	PRF - I
T20	Northeast of Site	Mature Common Lime with multiple knot holes. Two knotholes on west aspect facing upwards 5m high, one facing south 6m high, one facing east 6m	PRF - I

Structure/ Tree Number	Location	Description of Bat Roost Suitability (BRS) Features	BRS Category
		high, and two 9m high facing Upwards.	
T16	Northeast of Site	Mature Common Lime with single small crevice 5m high facing southwest.	PRF - I
T15	Northeast of Site	Mature Common Lime with four knot holes facing south at multiple heights.	PRF - I
T9	Northeast of Site	Mature Locust Tree *Robinia pseudoacacia* with moderate ivy cover potentially hiding BRS features.	PRF - I

Badger

3.26 A review of biological records provided by GiGL identified badgers within 1km of the Site. Due to the risk of persecution of this species, the location of this is kept confidential in this report.

Habitat Appraisal

3.27 The Site provided limited suitable foraging and sett-building habitat for badger. Primarily amenity and improved grassland for foraging and dispersing.

3.28 Surrounding the Site, habitats in the wider landscape provided optimal habitat for badger to forage, disperse and shelter with well-connect areas of woodland habitat and dense hedgerows, including areas within Bushy Park and Home Park SSSI.

3.29 Although badgers will more likely use the areas of more suitable habitat in the wider landscape, it is still possible for individuals to use the areas of grassland on Site to commute and forage. Therefore, it was determined the Site was of low suitability for commuting and foraging badgers and so badgers are considered further in this report.

Great Crested Newt (GCN)

3.30 No records of GCN were identified within the biological records search from GiGL, however, a search on Multi-Agency Geographic Information for the Countryside (MAGIC)[16], revealed the closest record of GCN in relation to the Site was located 2570m northeast of the Site and separated by the River Thames.

Habitat Appraisal

3.31 There is suitable terrestrial habitat for GCN within the landscape in close proximity to the Site, as well as suitable waterbodies for the breeding population. However, the fact that no suitable terrestrial or breeding habitat was found for the species within the Site, it was considered unlikely for GCN to be present on Site and was therefore screened out of further consideration in this report.

Reptiles

3.32 The following reptile records were provided by GiGL within 1km of the Site:

- Adder (*Vipera berus*); and
- Grass Snake (*Natrix natrix*).

Habitat Appraisal

3.33 The wider landscape provided suitable habitat for reptiles with vast areas of grassland, dense hedgerows and edges of woodland habitat. The Site on the other hand did not support suitable habitat for reptiles given it is mostly comprised of short sward amenity grassland and hardstanding with limited opportunities for reptiles to forage, shelter or

[16] https://magic.defra.gov.uk/MagicMap.aspx. Last access on 20/03/2024.

overwinter. It was, thus, considered unlikely for reptiles to be present within the Site and were therefore screened out of further consideration in this report.

Birds

3.34 The biological records search from GiGL identified the following species within 1km of the Site. This included:

- Skylark *Alauda arvensis*
- Wood Warbler *Phylloscopus sibilatrix*
- Red Kite *Milvus milvus*
- House Martin *Delichon urbicum*
- Reed Bunting *Emberiza schoeniclus*
- Redwing *Turdus iliacus*
- Mistle Thrush *Turdus viscivorus*
- Cetti's Warbler *Cettia cetti*

Habitat Appraisal

3.35 The Site presented limited suitability for nesting birds given the lower ecological value of most types of habitats, including short mown amenity grassland and hardstanding and buildings, however, the line of trees (TL1) located to the northeast of Site and broadleaved scattered trees found throughout the Site offer nesting opportunities for common and widespread urban bird species.

3.36 Given this information nesting birds will be considered further on this report.

Invertebrates

3.37 The biological records search from GiGL identified a large number of notable invertebrate species records within 1km of the Site. However, given the Site is mainly composed by amenity grassland and hardstanding habitat, it is unlikely for the Site to support such notable species.

Habitat Appraisal

3.38 The Site presented limited suitability for invertebrates given the lower ecological value of most types of habitats, including amenity grassland and hardstanding and buildings. However, the two dead monoliths and small area of soil mound to northeast and a small area of bare ground to the southwest of the Site, as well as the mature trees present within Site to the northeast, present some opportunities for common and widespread invertebrate species. Given this information invertebrates will be considered further on this report.

Chapter 4
Discussion

4.1 Relevant legislation afforded to protected species, habitats and designated sites is detailed in **Appendix A**.

Designated Sites

Statutory Designated Sites

4.2 There are six statutory designated sites within 5km of the Site. This includes Bushy Park and Home Park SSSI within part of the Site to southeast, Richmond Park SAC, SSSI at 2300m to northeast, Wimbledon Common SAC, SSSI at 4700m northeast, Knight & Bessborough Reservoirs SSSI at 4700m southwest, Southwest London Waterbodies Ramsar, SPA at 4700m southwest and 4900m northwest, and Kempton Park Reservoirs SSSI at 4900m northwest.

4.3 Bushy Park and Home Park SSSI is designated for their exceptionally large population of ancient and veteran trees, extensive areas of semi-natural lowland dry acid grassland, and internationally significant populations of rare invertebrates. Given the proposals will only affect the area previously occupied by the burnt down cricket pavilion (B1) which occurs outside of the SSSI boundary, no impacts are predicted in relation to the Site proposals.

4.4 Richmond Park SAC, SSSI and Wimbledon Common SAC are designated by their large number of ancient trees with decaying timber and for their importance in the conservation of invertebrates such as the stag beetle. Given the proposals will only affect the area previously occupied by the burnt down cricket pavilion (B1) and the paved road that allows access to the same area, and given its distance to the Site, no impacts are considered in relation to the Site proposals.

4.5 Knight & Bessborough Reservoirs SSSI, Southwest London Waterbodies Ramsar, SPA and Kempton Park Reservoirs SSSI are designated by their importance for the conservation of wildfowl, particularly wintering bird populations and migrating birds. Given its distance to the Site, the fact that there are no opportunities for wildfowl within Site and the proposals will only affect the area previously occupied by the burnt down cricket pavilion (B1) and the paved road that allows access to the same area, no impacts are considered in relation to the Site proposals.

Non-Statutory Designated Sites

4.6 There are 11 non-statutory designated sites within 2km of the Site including Bushy Park and Home Park SINC (Metropolitan), River Thames and Tidal Tributaries SINC (Metropolitan), The Copse at Hampton Wick and Normansfield Hospital SINC (Local), Hogsmill River in Central Kingston SINC (Local), Seething Wells Filter Beds SINC (Borough I), Hogsmill Valley Sewage Works and Hogsmill River SINC (Borough I), Ham Lands SINC (Metropolitan), Royal Park Gate Open Space SINC (Local), Hampton Court House Grounds SINC (Local), Churchyard of St Mary with St Alban, Teddington SINC (Local). and Kingston Cemetery SINC (Local)

4.7 Given the small scale of the works and the fact that the proposals will only seek to replace the burnt down cricket pavilion (B1) by a new pavilion of the same size and footprint and make use of the already existing paved road linking the pavilion to the main entrance of the Site, no impacts are considered in relation to the Site proposals.

Habitats

4.8 The Site is mainly comprised of areas of short mown amenity grassland, hardstanding, and buildings; however, it also includes a tree line (TL1), two small areas of improved grassland, broadleaved scattered trees, small areas of bare ground, dead monoliths, and a small area of soil mound. These habitats were considered to be of negligible to moderate ecological value.

Mitigation

4.9 Given the proposed plans for the Pavilion Rebuild will only affect the area previously occupied by the burnt down Cricket Pavilion (B1), and make use of the existing paved road linking the pavilion to the main entrance of the Site, areas with higher ecological value such as the tree line (TL1), broadleaved scattered trees, two dead monoliths, and a small area of soil mound will be retained.

4.10 To avoid impacts to the retained habitats the following best construction measures will be required:

- Secure storage and safe disposal or any materials and substances to prevent accidental contamination.
- Prevention or reduction of dust through timing of works or damping down.
- Trees that are to be retained within or in close proximity of the Site and works area, will require protection in line with BS 5837:2012: Trees in relation to design, demolition and construction, to ensure that they are not damaged as a result of any proposed works, such as a through root compaction.

Enhancements

Biodiverse Green Roof

4.11 As part of the new development proposals, two areas of biodiverse green roof with approximately 12m^2 each will be integrated into the proposed first floor plan for the new cricket pavilion, which will benefit biodiversity, create more opportunities for invertebrates, bats and birds, and contribute to biodiversity net gain on Site.

Invasive Non-Native Plant Species

4.12 Green alkanet and holm oak were both noted on Site to the northeast, next and along the paved road linking the main entrance to the Cricket Pavilion (B1) area.

4.13 Development and future management should seek to control this species in accordance with best practice guidance measures through appropriate management to prevent this species colonising and to eradicate it from the Site.

Protected Species

Bats

4.14 Legal protection afforded to bats and their roosts is summarised in **Appendix A**.

4.15 In summary all bats and their roosts are subject to the highest level of protection afforded to species in the UK as European Protected Species (EPS).

Habitat Appraisal

4.16 The Site supported some suitable habitats for bats, such as the tree line (TL1), two small areas of improved grassland, broadleaved scattered trees, small areas of bare ground, dead monoliths, and a small area of soil mound.

4.17 Taking into account the small scale and localised nature of the works which will focus on building a new cricket pavilion with the same size and footprint of the previous one and make use of the existing paved road for access and parking, there are no predicted significant direct impacts from the proposals.

4.18 However, it is important to address potential indirect impacts of light spill into the brick wall (S1) bordering the Site to northeast and various trees within the Site with bat roost potential. Such trees include T38, T37, T35, T34, T33, T32, T30, T28, T26, T25, T24, T20, T16, T15 and T9.

Mitigation

Lighting Scheme

4.19 Lighting negatively impacts upon bats and their ability to forage and commute. Therefore, any external lighting

proposed for the Site and under the Hampton Wick Cricket Club Pavilion Rebuild Application will require mitigation to ensure bats are not impacted by the lighting scheme.

4.20 Mitigation is outlined below in order to ensure that the proposals do not result in increased lighting of habitats with potential to support bats. This includes a sensitive lighting scheme that will need to be adopted in order to minimise light spill. In line with best practice guidance[17], the following lighting measures should be implemented where feasible:

4.21 Implementation of dark buffer zones, illumination limits and zonation to separate habitats or features of importance for bats, such as the tree line (TL1) to the northeast of the Site, the broadleaved scattered trees noted throughout the Site and the brick wall (S1) bordering the Site to northeast:

- Use of LED lighting, which does not emit UV, and which has a warm white light spectrum (preferably <2700Kelvin) and uses wavelengths higher than 550nm.
- Internal lighting adjacent to windows should be recessed to reduce glare and light spill.
- Directional lighting, such as specialist bollards, low-level downward direction lighting or column lighting to minimise light spill.
- Use of motion sensor lighting or timers to restrict lighting to required periods.
- Dimming or part-night lighting to reduce light levels when bats are most active.
- Use of the lowest lux possible.
- Sensitive scheme design to minimise light spill on key habitats and features i.e. location, orientations and height of new structures or placement of open spaces and footpaths.
- Screening through soft landscaping and installation of walls and fences.

Badger

4.22 Legal protection afforded to badger is summarised in **Appendix A**.

Habitat Appraisal

4.23 No badger setts were recorded within the Site during the survey visit undertaken in early March 2024 and the Site provided limited suitable foraging and sett-building habitat for badger, however, it is still possible for individuals to use the areas of grassland on Site to commute and forage.

Mitigation

4.24 The following precautionary measures are recommended during construction in order to minimise the potential impact on commuting and foraging badgers:

- Badgers will be deterred from entering the construction site by using suitable fencing during the construction phase. Suitable fencing includes interlocking weld-mesh panels (e.g., Heras), well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground but could also include close board solid fencing.
- Excavations will be covered at the end of each working day and any temporary exposed pipes will be capped to prevent badgers gaining access during the night. Any excavations or deep pits within the construction site that have to be left open overnight will be provided with a means of escape should a badger enter. This could simply be in the form of a roughened plank of wood placed in the excavation as a ramp to the surface.
- The storage of topsoil or other 'soft' building materials on Site will be given careful consideration. Badgers will readily adopt such mounds as setts. To avoid the adoption of any mounds by badgers, mounds will be kept to a minimum and any essential mounds subject to daily inspections. It is recommended that topsoil and 'soft' building materials are not stored within close proximity to the Site boundaries, where badger activity is more likely.
- The storage of any chemicals within the Site will be contained in such a way that they cannot be accessed or knocked over by any roaming badgers.

Birds

4.25 Legal protection afforded to nesting birds is summarised in **Appendix A**.

Habitat Appraisal

4.26 The Site presented limited suitability for nesting birds given the lower ecological value of most types of habitats, including amenity grassland and hardstanding and buildings. However, TL1 located to the northeast of Site and broadleaved scattered trees found throughout the Site offer

[17] Bat Conservation Trust and Institute of Lighting Professionals (2018) Guidance Note 08/18: Bats and artificial lighting in the UK. ILP, Rugby.

nesting opportunities for common and widespread urban bird species.

Mitigation

4.27 The proposals for the Pavilion Rebuild Application do not include the felling of any of the trees present within the Site, however, if nesting birds are found to be present, works must cease within a suitable buffer zone until the young have fully fledged, and the nest is no longer active (to be confirmed by an ecologist). This would result in delays to the programme, the length of which would be determined by the species present.

Invertebrates

4.28 Legal protection afforded to invertebrates is summarised in **Appendix A**.

Habitat Appraisal

4.29 The Site presented limited suitability for invertebrates given the lower ecological value of most types of habitats, including amenity grassland and hardstanding and buildings. However, the two dead monoliths and small area of soil mound to northeast and a small area of bare ground to the southwest of the Site, as well as the mature trees present within Site to the northeast, present some opportunities for common and widespread invertebrate species.

Mitigation

4.30 The proposals for the Pavilion Rebuild Application will not affect any of the habitats mentioned above, therefore, no mitigation measures will be required.

Enhancements

4.31 As mentioned above, the new development proposals will create two areas of biodiverse green roof with approximately 12m^2 each and integrate these into the proposed first floor plan for the new cricket pavilion, allowing the project to achieve more than 10% BNG. These areas of biodiverse green roof will include 11 species of stonecrop *Sedum* spp., which will be grown in the blanket to ensure plant diversity and benefit common and widespread invertebrate species.

Appendix A
Policy and Legal Considerations

Planning Policy and Legislation

4.32 Statutory nature conservation sites and protected species are a 'material consideration' in the UK planning process (DCLG 2012). Where planning permission is not required, for example on proposals for external repair to structures, consideration of protected species remains necessary given their protection under UK and EU law.

4.33 Natural England Standing Advice aims to support Local Planning Authorities decision making in respect of protected species (Natural England 2012). Standing advice is a material consideration in determining the outcome of applications, in the same way as any individual response received from Natural England following consultation.

4.34 The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) transpose the requirements of the European Habitats Directive (Council Directive 92/43/EEC) and Birds Directive (Council Directive 79/409/EEC) into UK law, enabling the designation of protected sites and species at a European level.

4.35 The Wildlife and Countryside Act 1981 (as amended) forms the key piece of UK legislation relating to the protection of habitats and species.

4.36 The Countryside Rights of Way Act 2000 provides additional support to the Wildlife and Countryside Act 1981; for example, increasing the level of protection for certain species of reptiles.

4.37 The Wild Mammals (Protection) Act 1996 sets out the welfare framework in respect to wild mammals, prohibiting a range of activities that may cause unnecessary suffering.

4.38 Species and Habitats of Principal Importance for Conservation in England and Wales and priority habitats and species listed on the National and Local Biodiversity Action Plans (BAP) are species which are targeted for conservation. The government has a duty to ensure that involved parties take reasonable practice steps to further the conservation of such species under Section 41 of the Natural Environment and Rural Communities Bill 2006. In addition, the

Act places a biodiversity duty on public authorities who 'must, in exercising their functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (Section 40 [1]). Criteria for selection of national priority habitats and species in the UK include international threat and marked national decline.

4.39 The National Planning Policy Framework (DLHC 2023) states (Section 11), that the planning system should safeguard and improve the environment. It also states that local planning authorities and planning policies should:

- Encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside. Recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production. Give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.

4.40 The National Planning Policy Framework (DLHC 2023) also states (section 15) that the planning policies and decisions should contribute to and enhance the natural and local environment as well as biodiversity by:

- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).
- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.
- Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- Identifying, mapping and safeguarding 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.
- Promoting 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.

4.41 The **London Borough of Richmond Upon Thames (Chapter 4, and 5)** has a number of policies relating to biodiversity within the Borough. These reflect the need to consider impacts of light spill, captured in Policy LP 9. Specifically for development, the Policy LP 13 requires appropriate use of land affecting biodiversity, which should be protected and retained. Policy 15 states the need to protect and enhance biodiversity and deliver net gain through incorporation of ecological enhancements. It also mentions the need to avoid impacts on species and habitats. Regarding habitats, Policy 16 states the requirement to protect existing trees and provide new trees, shrubs and other vegetation.

Protected Species Legislation

Bats

4.42 All British species of bat are listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is an offence to deliberately kill, damage, take (Section 9(1)) a bat; to intentionally or recklessly disturb a bat whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a bat roost (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of bats.

4.43 All British bats are listed on the Conservation of Habitats and Species Regulations 2017, Schedule 2, (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). Regulation 41 strengthens the protection of bats under the 1981 Act against deliberate capture or killing (Regulation 41(1)

(a)), deliberate disturbance (Regulation 41(1) (b))[18] and damage or destruction of a resting place (Regulation 41(1) (d)).

4.44 A bat roost is defined as any structure or place which is used for shelter or protection, irrespective of whether or not bats are resident. Buildings and trees may be used by bats for a number of different purposes throughout the year including resting, sleeping, breeding, raising young and hibernating. Use depends on bat age, sex, condition, and species as well as the external factors of season and weather conditions. A roost used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to bats, and loss, obstruction of or damage to a roost are licensable.

Application for Natural England EPS Licence

4.45 Development works that may cause killing or injury of bats or that would result in the damage, loss or disturbance of a bat roost would require a Natural England (NE) Bat Mitigation Licence.

4.46 For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests: whether there is a need for the development which justifies the impact on the European Protected Species (EPS); whether there is an alternative which would avoid the impact and need for an EPS licence; and whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question.

4.47 A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged. There are two licensing routes now available for bats, which comprise:

Full NE England EPS Mitigation Licence:

- NE aim to determine the application within six weeks (although this can take longer).
- The application comprises three components including an application form (broad details of the applicant, site and proposals); a detailed Method Statement providing the survey methods and findings, impact assessment and mitigation measures (including detailed maps and schedule of works); and a Reasoned Statement outlining the 'need' for the development and consideration of alternatives.

NE Low Impact Class Licence

- This new route provides an alternative, quicker route (with a much-reduced application form, and a target of 10 days to determine an application).
- This Low Impact Class Licence is only available to Registered Consultants identified by NE.
- This is available for sites which support up to three low status roosts (day roosts, night roosts, feeding roosts and transitional roosts) of a maximum of three common species. The common species which can be covered by this licence include common pipistrelle, soprano pipistrelle, brown long-eared, whiskered, Brandts, Daubenton's and Natterer's bat.
- All licensed works require evidence that there is a need for the development and that appropriate mitigation, including seasonal constraints and provision of alternative habitat and/or roosting structures is considered.
- Before Natural England can confirm the site is registered and licensable works can commence, an assessment of the three tests must be undertaken by the Registered Consultant. Although this does not need to be submitted to NE, NE may subsequently undertake a review of the project and request to see all evidence as collected by the Consultant. This can only be undertaken following a survey and impact assessment which must be carried out in accordance with licence conditions and BCT survey guidelines.
- This licence cannot be used in relation to trees.

4.48 Several species of bat, including brown long-eared and soprano pipistrelle are listed as species of principal importance under the NERC Act (2006). Section 41 of the Act is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Great Crested Newt

4.49 GCN and their places of shelter are subject to the same level of protection as bats as a European Protected Species (see above).

[18] Relates specifically to deliberate disturbance in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young or ii) the local distribution of that species.

Reptiles

4.50 All UK reptiles and amphibians are legally protected from intentional and reckless killing and injury under the Wildlife and Countryside Act 1981 (as amended).

Badger

The Protection of Badgers Act 1992 provides specific protection for this species. Under this act it is an offence to take, kill or injure badgers or cause cruelty to badgers. It is also an offence to interfere with a badger sett (including digging for badgers, permitting dogs to enter a badger sett, obstructing the entrance to, or destroying a badger sett or disturbing a badger when it is occupying a sett); or to buy or offer for sale or otherwise possess a live badger. Works which may result in damage to a badger sett, or potential disturbance to badger using setts, must be undertaken under a Natural England licence.

Nesting Birds

4.51 Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended). This Act gives protection to all species of bird with regard to killing and injury, and to their nests and eggs with regard to taking, damaging and destruction. Certain species listed on Schedule 1 of the Act, are afforded additional protection against protection.

Plants

4.52 Certain plants are protected against uprooting and sale by the Wildlife and Countryside Act 1981 (as amended). In addition, it is illegal to cause certain plants listed on schedule 9 of the Wildlife and Countryside Act to grow in the wild, or to plant them in the wild.

Appendix B

Figures

- Figure 1: Bat Roost Suitability (BRS) And Potential Roosting Features (PRF)
- Figure 2: Baseline Habitats (Phase 1)

Hampton Wick Cricket Club - Pavilion Rebuild
for Aros Architects

LUC

Figure 1: Bat Roost Suitability (BRS) and Potential Roosting Features (PRF)

Site boundary

Bat Ground Level Tree Assessment

PRF - multiple

PRF - individual

Bat Roost Suitability - structures

BRS - low

BRS - negligible

Maxar, Microsoft 2024

12840_001_Ecology_Figures/12840_001_r0_BRS_A3L 27/03/2024 EB:maslin_z

Hampton Wick Cricket Club - Pavilion Rebuild
for Aros Architects

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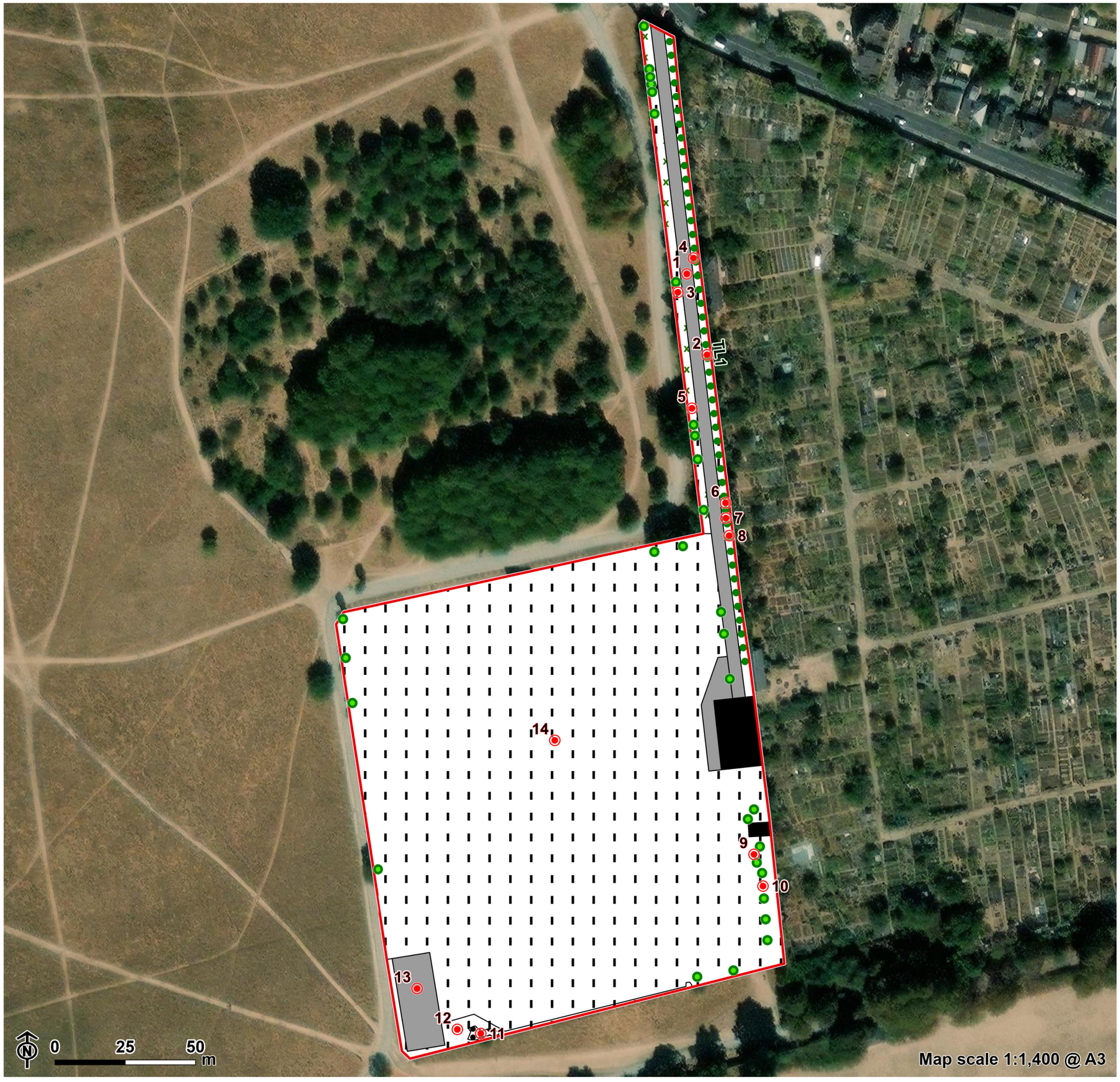
Figure 2: Baseline Habitats (Phase 1)



- Site boundary
- Target note
- Individual tree

Phase 1 linear

- TL Tree line

Phase 1 habitat

- B4 Improved grassland
- B4 Improved grassland / A2.2 Scrub (scattered)
- HS Hard standing
- J3.6 Buildings
- J4 Bare ground

Maxar, Microsoft 2024

Appendix C
Target Notes

- Table C.1: Baseline Habitats (Phase 1) – Target Notes

Table C.1: Target Notes

Target Note ID	Description	Photograph
1	Hard Standing in the form of a paved road to the northeast of the Site.	
2	Improved grassland dominating ground flora under line of trees (TL1).	

Target Note ID	Description	Photograph
3	Area of improved grassland to northeast of the Site.	
4	Line of trees (TL1) to northeast of the Site with dominant common lime and occasional English elm, silver pendent lime, English oak and locust tree.	

Target Note ID	Description	Photograph
5	Small patch of bare ground to northeast of the Site.	
6	High density of ivy covering brick wall (S1) to northeast of the Site and potentially hiding bat roosting features.	

Target Note ID	Description	Photograph
7	Ivy covering fallen tree stem to northeast of the Site and next to brick wall (S1) providing shelter and foraging opportunities to invertebrates.	
8	Dead monolith of horse chestnut to northeast of Site providing shelter and foraging opportunities to invertebrates.	

Target Note ID	Description	Photograph
9	Small area of soil mound to northeast of Site and near dead monolith of horse chestnut and B2.	
10	Dead monolith of horse chestnut to northeast of Site providing shelter and foraging opportunities to invertebrates.	

Target Note ID	Description	Photograph
11	Area of bare ground to southwest of Site likely caused by deer trampling.	
12	Area of improved grassland to southwest of the Site and at the edge of sports pitch, which was left unmown leading into a higher sward height. Area comprised of dominant red fescue, perennial ryegrass and cocksfoot, abundant nettle, frequent ragwort and creeping bent, occasional dandelion, white clover, ribwort, daisy, yarrow, spear thistle and bramble, and rare soft rush.	

Target Note ID	Description	Photograph
13	Part of the cricket premises to southwest of the Site with artificial lawn at base.	
14	Amenity grassland on sports field in the centre of the Site and in front of the burnt down cricket pavilion, with dominant perennial ryegrass, abundant white clover, chickweed, *Brachythecium* sp., frequent ragwort, common daisy, dandelion and ribwort, and occasional creeping thistle and yarrow. There was also locally abundant red fescue and cocksfoot bordering field.