Preliminary Ecological Appraisal

For

Louise O'Rourke

Ysgol Bryn Alun

Church Street

Wrexham

LL11 4HD

Reference: Q12271

Prepared by
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Quality Assurance

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Disclaimers

All information set out in this report is true and based on the opinions and knowledge of ProHort at the time of writing. This report has been set out for the sole use of the client under the conditions set out in this document.

This report was prepared to the standard set out in the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. Adhering to this guidance, this report is considered valid for a period of 12 months after the date of the site visit, after this date this report will no longer be an accurate assessment of the current conditions of the Site/project area.

Credentials

Jason Harker has 25 years of horticultural, arboricultural and ecological experience, is a member of CIEEM, a Certified Surveyor of Japanese Knotweed, accredited by the Property Care Association and has attended multiple tree surveying courses by the Arboricultural Association and LANTRA. Additionally, he is an experienced bat surveyor, conducting 30 – 35 surveys each year and has undertaken a number of bat surveying training courses *(Ecology Training UK)*.

Emma Laurie is a member of CIEEM with a Level 1 Bat License and 5 years' experience in ecology and environmental work. Additionally, she has a Level 3 FISC certification. Finally, she has a master's degree in 'Applied Ecology and Conservation' and a bachelor's degree in 'Biology'.

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Summary

A Preliminary Ecological Appraisal (PEA) was undertaken at Ysgol Bryn Alun, Church Street, Wrexham, LL11 4HD (grid reference: SJ 31445 53698), to support a planning application to construct a 3G synthetic football pitch within the grounds of a school. A site survey was undertaken on the 11th of September 2024 and a desktop study was undertaken in October 2024.

The appraisal assessed the current ecological value of habitats within the Site and their potential to support protected and notable species.

Overall, no further surveys are required to determine species presence within the Site.

For full details, please read the report in its entirety.

1. Introduction

ProHort Limited have been commissioned by Louise O'Rourke of Ysgol Bryn Alun, Church Street, Wrexham, LL11 4HD (grid reference: SJ 31445 53698) to conduct a Preliminary Ecological Appraisal (PEA), hereafter referred to as the 'Site'. The purpose of the survey was to assess the likely presence of rare or protected species, to identify any features, habitats or species which would constitute potential constraints to any development which may take place on the Site, and to make recommendations for mitigation and/or further survey work.

This report sets out the results of a desk-based study and a survey of the Site, undertaken on the 11th of September 2024. A PEA is required to support a planning application.

1.2. Site location

The Site is an area of modified grassland, the majority of which is used recreationally for sports as it is within the grounds of a school (Figure 1). The Site is Church Street, to the north of the main school buildings, within Gwersyllt, Wrexham. The Site is a 1.12 hectare parcel of land containing modified grassland, one small tree and a hedgerow. The Site is surrounded by urban areas, predominately residential in use, with small parcels of woodland, grassland and arable land within the wider area. There were no water features within the Site or directly surrounding the Site.

There are plans to develop the Site. The planning application involves the construction of a 3G synthetic football pit within the amenity grassland area attached to a school.

The focus of this report is to determine whether the proposed works on the Site will impact any protected species or habitats.



Figure 1 – Site location (redline), showing the wider local landscape.
Taken from Bing Maps (©2024 Microsoft Corporation, ©2024 Maxar, ©CNES(2024) Distribution Airbus DS)

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2. Methods

2.1. Aims and Objectives of the Survey

The aims and objectives of this report are as follows:

- To record and describe the current habitats and species present within the Site.
- To identify any occurrences or rare and/or protected plant species within the Site.
- To identify any invasive, non-native plant species.
- To undertake a habitat appraisal and assess the potential of the site to support protected species.
- To identify any potential ecological concerns or constraints that could influence the development and provide feedback on appropriate mitigation measures to avoid, mitigate or compensate for impacts on protected species and other local wildlife.

2.2. Desk Top Study

The purpose of a desk study is to collect baseline ecological data held by statutory and non-statutory consultees. This includes any records of species from the Site and the surrounding 2km.

To ensure the information within this report is current, only species data collected within the last 10 years was considered. This data is used as an indicator of species presence and should not be used to indicate absence.

A search on DEFRA's open source, online MAGIC Maps tool was used to identify any designated sites, priority habitats, and previous protected species licences within 2km of the Site.

Data provided by the Site's Local Record Centre was used to identify any non-statutory designated sites and any protected and notable species records within 2km of the Site.

Any trees with the Site or any trees affected by the proposed works will be checked to identify any existing Tree Preservation Orders (TPO). The local authority maps/records where searched.

2.3. Habitat Survey

A survey was completed of the defined boundary of the Site as well as the surrounding area, where applicable. The Site area was assessed in accordance with the UK Habitat Classification Version 2.0 (UKHab Ltd 2023). A species list of flora was compiled for each habitat and an estimate of abundance was assigned using the DAFOR (Dominant, Abundant, Frequent, Occasional, or Rare) sale (Walker *et al*. 2010). The Site was then assessed for its suitability for any protected and notable species. The surrounding area was assessed for any evidence or suitability for any protected and notable species.

2.4. Preliminary Roost Assessment

A Preliminary Roost Assessment (PRA) was undertaken on any objects of interest within the Site (buildings or trees etc. where applicable) in reference to the Bat Conservation Trust (BCT) Good Practice Guidelines 4th Edition (Collins, 2023). A thorough search for evidence of bats was undertaken in any internal loft spaces or voids and on any external features of any appropriate buildings, notably any windowsills, walls, floors and flat surfaces.

A ground level tree assessment for all individual trees and tree groups within the Site was undertaken to determine any bat roosting potential. A note was made of any features (e.g. cracks, holes, crevices, loose bark, or dense ivy *Hedera helix*) or evidence of bats visible from ground level.

Evidence of roosting bats include:

- Presence of live/dead bats.
- Bat droppings (can be distinguished from rat/mouse droppings by their crumbly texture).
- Staining from fur around access points.
- The presence of feeding remains, such as insect wings and casings.
- Absence of cobwebs around crevices

A building/tree would be identified as a 'confirmed' bat roost if evidence of roosting bats was recorded.

Evidence of bats is often concealed and/or inaccessible due to remote nature of the roost. Therefore, where no evidence of roosting bats was recorded, an assessment on the availability of potential roosting areas and bat access points around the building/tree, as well as the quality/availability or surrounding bat habitat, was conducted. The building/tree was then assigned a category that is based on a sliding scale of 'negligible' to 'high potential' (based on Collins, 2023).

2.5. Great Crested Newt Habitat Suitability Index Assessment

Ponds within 250 m of the Site, where possible, were assessed for the suitability for Great Crested Newts (GCN). The assessment of these ponds followed the GCN Habitat Suitability Index (HSI) methods (ARG UK, 2010). The HSI methods assess a number of parameters that influence breeding populations of GCN. These parameters include: location, pond size, permanence of pond, water quality, bank shading, waterfowl activity, presence of fish, number of ponds within the surrounding area, terrestrial habitat type, and macrophyte cover of the pond. Each of these variables can score a number between 0 and 1 and the geometric mean of these numbers provide a final value which can be used to categorise

the suitability level (poor, below average, average, good, or excellent). These categories can then be used to inform the need for further surveys.

2.6. Legislation and Policy

Appendix 2 sets out the relevant policies and environmental and wildlife legislation relevant to the Site. The project must follow these documents, and this report is set out to avoid any offenses being committed regarding these policies and legislations.

2.7. Limitations of the Survey

There were no limitations to the survey; the whole of the site was accessible on foot, allowing the full appraisal of habitats and species present. It should be noted that a single visit cannot always ascertain the presence or absence of a protected species. However, an assessment is made of the likelihood for protected species to occur based on habitat characteristics and ecology of each species. Where there is potential for protected species, additional survey work may be required to ascertain their presence or absence.

Data on species that has been obtained from local records, are sometimes only available at low spatial resolutions and are constrained by the voluntary nature of the contributions and what has been chosen to be submitted. While these records provide a useful indication of species recorded in the local area, the data is not necessarily an accurate reflection of species assemblages or abundance in the vicinity.

The Site was surveyed within the flowering period (11th September 2024) and therefore most species/signs of species presence would have been visible during the site visit.

3. Results

3.1. Designated Sites

13 statutory and non-statutory designated sites were identified within 2km of the Site (Table 1).

Table 1 – All statutory and non-statutory designated sites within 2km of the Site; taken from Magic Maps in October 2024 and provided by the Cofnod Records Centre

Site and Designation	Distance from the Site	Connectivity	Site description
Moss Valley Wildlife Site	550 m SW	Low – No woodland or species-rich grassland within the Site and urban areas acting as a dispersal barrier for plants and terrestrial fauna.	Well wooded valley slopes with adjoining grassland. The eastern slopes have semi-natural woodland, a canopy of pendunculate oak (*Quercus robur*), sycamore (*Acer pseudoplatanus*) and ash (*Fraxinus excelsior*) with some planted beech (*Fagus sylvatica*). The understorey has hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*) and wild cherry (*Prunus avium*). The ground flora is fairly diverse with areas of nettle (*Urtica sp.*), bracken (*Pteridium aquilinum*), bramble (*Rubus sp.*) and ivy (*Hedera helix*) along with large areas of thinner soiled woodland with wavy hair-grass (*Avenella flexuosa*), bluebell (*Hyacinthoides non-scripta*), wood sage (*Teucrium scorodonia*), heather (*Calluna vulgaris*) and goldenrod (*Solidago sp.*). On the western slopes there is a more recent woodland with a sycamore/ash/oak canopy. The ground flora includes bramble, bracken, ivy, bluebell wood-sorrel, hartstongue fern (*Asplenium scolopendrium*) and tutsan (*Hypericum androsaemum*). To the southeast of the site, semi-improved neutral grassland with abundant yorkshire fog (*Holcus lanatus*), common bent (*Agrostis capillaris*), and sweet vernal grass (*Anthoxanthum odoratum*) occurs. The herb content is high with tufted vetch (*Vicia cracca*), meadow vetchling (*Lathyrus pratensis*), musk thistle (*Carduus nutans*), greater knapweed (*Centaurea scabiosa*), yellow rattle (*Rhinanthus minor*), field scabious (*Knautia arvensis*) and bladder campion (*Silene vulgaris*). To the south-west, there is a disused railway line with uncommon species present, such as upright brome (*Bromus erectus*), ratstail fescue (*Vulpia*

			myuros), and hare's-foot clover (*Trifolium arvense*).
Woodlands and Fishpond Wood Wildlife Site	750 m E	Low – No woodland or species-rich grassland within the Site and urban areas acting as a dispersal barrier for plants and terrestrial fauna.	Two areas of wetland; the larger area is the site of an old lake which is no longer dammed. Along the line of this lake is now a marsh and alder (*Alnus sp.*) woodland. Around the west end of the marsh is semi-improved neutral grassland with a good herb content. Species include black knapweed (*Centaurea nigra*), bird's-foot trefoil (*Lotus corniculatus*) and field wood-rush (*Luzula campestris*). The most frequent species in the marsh are great willowherb (*Epilobium hirsutum*), common sedge (*Carex nigra*), meadowsweet (*Filipendula ulmaria*), marsh horsetail (*Equisetum palustre*), yorkshire fog and marsh marigold (*Caltha palustris*). Other species present include elongated sedge (*Carex elongata*), hairy sedge (*Carex hirta*), common yellow sedge (*Carex demissa*), greater bird's-foot trefoil (*Lotus pedunculatus*), ragged robin (*Silene flos-cuculi*), hard rush (*Juncus inflexus*), water figwort (*Scrophularia umbrosa*) and water mint (*Mentha aquatica*). There is a small scrubby gorse mound (*Ulex europaeus*) to the north and two patches of alder woodland. Willow (*Salix sp.*) and sycamore are also found in the canopy with many of the marsh species continuing as undergrowth.
Alyn Waters Wildlife Site	800 m NE	Low – No woodland or species-rich grassland within the Site and urban areas acting as a dispersal barrier for plants and terrestrial fauna.	A series of woods along the River Alyn and some regenerating neutral grassland within the Alyn Waters Country Park.
Bryn Alyn & Wormswood Wildlife Site	1415 m E	Low –Dispersal barriers for flora and fauna species reducing connectivity.	No information provided
Brymbo Pony Fields Wildlife Site	1535 m W	Low –Dispersal barriers for flora and fauna species reducing connectivity.	This site is situated on a steep west facing slope. The small fields, bounded by hedges, consist of semi-improved grassland grazed by ponies.
Alyn Waters (LNR)	1540 m NE	Low –Dispersal barriers for flora and fauna species reducing connectivity.	No information provided

Blast Road Pond Wildlife Site	1690 m N	Low –Dispersal barriers for flora and fauna species reducing connectivity.	An old gravel pit which is now a fishing lake which an unimproved grassland slope and semi-improved grassland area.
Llay Bog (SSSI)	1780 m NE	Low –Dispersal barriers for flora and fauna species reducing connectivity	A small peat bog in an ice hollow in the glacial drift deposits. The bog margin, adjacent to the boundary ditch, is more mesotrophic than the central area and contains such species as Marsh Cinquefoil (*Potentilla palustris*), Marsh Pennywort (*Hydrocotyle vulgaris*), Marsh Violet (*Viola palustris*) and Soft Rush (*Juncus effusus*). The northern fringe is covered in alder - birch carr and includes Alder Buckthorn (*Frangula alnus*) with Purple Moor Grass (*Molinia caerulea*) and Broad Buckler Fern (*Dryopteris dilatate*) as common species underneath the woodland canopy. The small central portion of the bog is characterised by a lawn of Bog Moss (*Sphagnum spp.*) with *Eriophorum angustifolium* and Cotton Grasses (*E. Vaginatum*), Cranberry (*Vaccinium oxycocus*), Bottle Sedge (*Carex rostrata*), Sundew (*Drosera rotundifolia*) and *Calluna vulgaris* and Heaths (*Erica tetralix*).
Sydallt Wood Wildlife Site	1800 m NNW	Low –Dispersal barriers for flora and fauna species reducing connectivity	A woodland on the banks of the River Cegidog.
Coedwig Ffosil Brymbo Fossil Forest (SSSI)	1895 m W	Low –Dispersal barriers for flora and fauna species reducing connectivity	Exposures at Brymbo comprise approximately 14 m of Upper Carboniferous Duckmantian Coal Measures that contain an internationally important plant fossil assemblage.
Gatewen Marsh (SSSI)	1940 m S	Low –Dispersal barriers for flora and fauna species reducing connectivity	One of only three significant examples in the former county of Clwyd of the “southern mesotrophic mires” wetland type.
Hope Mountain & Ffrwdd Wood Wildlife Site	1980 m NW	Low –Dispersal barriers for flora and fauna species reducing connectivity	No information provided

3.2. Priority and Notable Habitats

The priority habitats (outlined in Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended)) within 2km of the Site are outlined in Table 2 below.

Table 2 – All priority habitats within 2km of the Site; taken from Cofnod Records Centre.

Priority habitat	No. of sites within 2km	Closest site	Connectivity
Ancient woodland	8	450 m W	Low – No woodland directly surrounding the Site and urban dispersal barriers impacting species distribution.
Lowland dry acid grassland	3	560 m W	Low – No indicator species for habitat found within the Site.
Lowland fens and reedbeds	5	776 m E	Low – No indicator species for habitat found within the Site.
Lowland meadows	1	1513 m NW	Low – No indicator species for habitat found within the Site.
Peatland	1	1790 m NE	Low – No indicator species for habitat found within the Site.
Traditional orchard	7	430 m NW	Low – No indicator species for habitat found within the Site.

It is considered that multiple hedgerows and ponds within 2km of the Site may meet criteria of priority habitats.

3.3. European Protected Species Licences

No European Protected Species licences were identified within 2km of the Site, however no records are provided within Wales on Magic Maps.

3.4. UK Habitat Classification Survey

2 UKHab habitats were identified within the Site:

- Modified grassland – g4 (Secondary codes: 201 Young trees – planted)
- Native hedgerow – h2a (Secondary codes: 11 Hedgerow with trees)

An on-site habitat plan is shown in Appendix 3 and photographs of the Site are shown in Appendix 4. Each of these habitats are described in Table 3 below.

Table 3 – All UKHabs classification descriptions.

Habitat Type	Habitat Description	Flora Species
Modified grassland – g4	The whole of the Site habitat was modified grassland due to the low species diversity. The sward was regularly mown and the majority of it was used as a sports pitch (Photographs 1 & 2). 3 small trees were located within the modified grassland, only one of which was larger than 7 cm diameter at breast height (Photograph 3).	**Abundant**: Perennial ryegrass (*Lolium perenne*), and Yorkshire fog **Frequent**: White clover (*Trifolium repens*) **Occasional**: Creeping buttercup (*Ranunculus repens*), creeping cinquefoil (*Potentilla reptans*), dandelion species (*Taraxacum sp.*) **Trees & Shrubs:** Pedunculate oak & field maple (*Acer campestre*)
Native hedgerow – h2a	One length of native hedgerow with trees was located partially along the eastern border of the Site (Photograph 1 & 4). The proposal for the Site is to maintain the hedgerow however the new sports pitch will be within 1m of the hedge along some edges.	**Trees & Shrubs:** Pedunculate oak, brambles, dog rose (*Rosa canina*), ash (*Fraxinus excelsior*), silver birch (*Betula pendula*), and willow species (*Salix sp.*).

3.5. Species Records

A search of local biological records was conducted by the Cofnod Records Centre up to 2km from the Site. Only records within the past 10 years were included in the following assessment. The records were filtered based on the relevance to the project proposal.

3.5.1 Badger

[redacted]

[redacted]

3.5.2 Bats

The bat species returned by the local records are detailed in Table 4.

Table 4 – bat records.

Species	Number of records
Brown long-eared (*Plecotus auritus*)	1
Lesser horseshoe (*Rhinolophus hipposideros*)	1
Myotis species (*Myotis sp.*)	2
Noctule (*Nyctalus noctule*)	2
Common pipistrelle (*Pipistrellus pipistrellus*)	6
Soprano pipistrelle (*Pipistrellus pygmaeus*)	2
Pipistrelle species (*Pipistrellus sp.*)	1

3.6.3 Birds

The were 34 species of protected or priority bird species (species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 or Schedule 1 of the Wildlife and Countryside Act 1981) returned by the local records (Table 5).

Table 5 – bird records

Species name	*Number of records*	*Likelihood of presence on site*
Schedule 1		
Avocet *(Recurvirostra avosetta)*	1	Low – Habitat onsite not favourable nesting or foraging habitat
Black-tailed Godwit (*Limosa limosa*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Green Sandpiper (*Tringa ochropus*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Hen Harrier (*Circus cyaneus*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Slavonian Grebe (*Podiceps auritus*)	3	Low – Habitat onsite not favourable nesting or foraging habitat
Fieldfare (*Turdus pilaris*)	5	Low – Habitat onsite not favourable nesting or foraging habitat

Hobby (*Falco Subbuteo*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Kingfisher (*Alcedo atthis*)	8	Low – Habitat onsite not favourable nesting or foraging habitat
Barn Owl (*Tyto alba*)	4	Low – Habitat onsite not favourable nesting or foraging habitat
Little Ringed Plover (*Charadrius dubius*)	2	Low – Habitat onsite not favourable nesting or foraging habitat
Marsh Harrier (*Circus aeruginosus*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Merlin (*Falco columbarius*)	2	Low – Habitat onsite not favourable nesting or foraging habitat
Red Kite (*Milvus milvus*)	8	Moderate – could use the Site for foraging and neighbouring trees as nesting habitat.
Peregrine (*Falco peregrinus*)	3	Low – Habitat onsite not favourable nesting or foraging habitat
Redwing (*Turdus iliacus*)	8	Low – Habitat onsite not favourable nesting or foraging habitat
Section 41		
Bullfinch (*Pyrrhula pyrrhula*)	8	Moderate – limited nesting and foraging habitat within the Site.
Curlew (*Numenius arquata*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Dunnock (*Prunella modularis*)	7	Moderate – limited nesting and foraging habitat within the Site
Yellowhammer (*Emberiza citronella*)	2	Low – Habitat onsite not favourable nesting or foraging habitat
Herring gull (*Larus argentatus subsp. argenteus*)	10	Low – Habitat onsite not favourable nesting or foraging habitat
Spotted Flycatcher *(Muscicapa striata)*	1	Low – Habitat onsite not favourable nesting or foraging habitat
House Sparrow (*Passer domesticus*)	6	Low – Habitat onsite not favourable nesting or foraging habitat

Grey partridge (*Perdix perdix)*	1	Low – Habitat onsite not favourable nesting or foraging habitat
Marsh tit (*Poecile palustris*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Song thrush (*Turdus philomelos subsp. clarkei*)	15	Low – Habitat onsite not favourable nesting or foraging habitat
Lapwing *(Vanellus vanellus)*	9	Low – Habitat onsite not favourable nesting or foraging habitat
Lesser Redpoll (*Acanthis cabaret*)	4	Low – Habitat onsite not favourable nesting or foraging habitat
Lesser Spotted Woodpecker (*Dryobates minor*)	2	Moderate – limited nesting and foraging habitat within the Site
Linnet (*Linaria cannabina*)	5	Moderate – limited nesting and foraging habitat within the Site
Reed Bunting (*Emberiza schoeniclus*)	4	Moderate – limited nesting and foraging habitat within the Site
Skylark (*Alauda arvensis*)	10	Moderate – limited nesting and foraging habitat within the Site
Starling (*Sturnus vulgaris*)	6	Moderate – limited nesting and foraging habitat within the Site
Tree Pipit (*Anthus trivialis*)	1	Low – Habitat onsite not favourable nesting or foraging habitat
Wood Warbler (*Phylloscopus sibilatrix*)	1	Low – Habitat onsite not favourable nesting or foraging habitat

The Site will have high activity levels from the school, making it less likely to support significant populations of nesting birds. There is a small amount of nesting habitat within the onsite hedgerow and trees. No further surveys are required to determine the presence of protected species within the Site.

3.5.4 Great Crested Newt

The local record search returned 16 occurrences of GNC. The closest record was 950 m southeast. The records of located out of or on the border of Gwersyllt so it is unlikely any of these populations would use the urban areas for commuting.

No ponds were located within the Site or were present within 250m of the Site boundary. The terrestrial habitat surrounding the Site had low suitability for GCN due to small amounts of trees, hedges and woodland.

However, given the lack of breeding habitat (ponds) for GCN within the Site and surrounding area, the proposed works can be considered as having a negligible impact on GCN breeding populations. Therefore, no further surveys are required.

3.5.5 Other Mammals

No records of hazel dormice (*Muscardinus avellanarius*) were returned by the local record search. It is unlikely the neighbouring woodland supports populations of hazel dormouse. Therefore, no further surveys are required.

4 records of Otter (*Lutra lutra*) were returned by the local record search. No water features were located in close proximity to the Side and therefore it is unlikely any watercourse mammals would be utilising the habitats onsite.

35 records of hedgehog (*Erinaceus europaeus*) were returned within the local record search. No favourable breeding or hibernating habitats were identified during the site visit for hedgehog. Any debris piles are created during the works, will be dismantled by hand as these can be used by hedgehogs and hibernating and breeding sites.

3.6.6 Reptiles and Other Amphibians

4 records of grass snake (*Natrix Helvetica*) were returned by the local record search. The habitats onsite were not favourable to reptiles. Therefore, no further surveys are required.

42 records of other amphibians were returned in the local record search. No water features were located in close proximity to the Site and the habitats onsite provide little terrestrial habitat for amphibians. Therefore, no further considerations are required.

3.6.7 Plants

No plants listed under the Wildlife and Countryside Act 1981 were returned by the local record search. No protected or invasive plant species were recorded during the Site visit, which was undertaken during the flowering season. Therefore, no further considerations are required.

3.6.8 Invertebrates

5 protected species of invertebrate (species listed in Section 41 of the Natural Environment and Rural Communities Act 2006) were returned by the local record search. None of these species' habitats will be significantly impacted by the proposal. Therefore, no further considerations are required.

3.6. Preliminary Roost Assessment

No buildings will be impacted by the proposed works. None of the on-site trees had bat roosting potential (holes, peeling bark, deadwood etc.). Therefore, no potential roosting sites will be impacted by the proposed works.

3.7. Evaluation

Based on these results, no further considerations are required before the proposed works begin.

4. Outputs and Opportunities

4.1. Mitigation

All the following measures should be adhered to throughout the proposed works to protect local fauna and flora:

- In the situation where any protected, notable or vulnerable animals are encountered during the works all work must stop and a suitable ecologist should be consulted before continuing.
- Any trenches created by the works should be covered overnight or a means of escape should be provided for any fauna that enters it.
- The creation of rubble, soil or brash piles should be avoided where possible as these can be used by hedgehogs, reptiles and amphibians.
- Using artificial lights between dusk and dawn should be avoided/minimised where possible.
- Avoid using unnecessary chemicals during the works and if any chemicals are required leakages are avoided through fuel drip trays, drip-capture devices and/or spill mitigation devices.

4.2. Recommendations for biodiversity enhancement

The below measures are recommended to increase viable habitat for specific species within the local environment:

- At least 1 bat roosting box should be installed on the Site buildings or trees. This box should be 1FW Schwegler Bat Hibernation Boxes (available at nhbs.com) or of a similar standard and be mounted at least 4m from the ground. The boxes should face north and should remain unobstructed.
- At least 1 bird box should be installed on the Site buildings or trees. This box should be to target a variety of species (e.g. Schwegler 1B 32mm bird box to target tits, redstart, nuthatch, flycatchers, wrynecks or sparrows; or Vivara Pro Woodstone Swift nest box etc.).
- Transporting of any offsite soil should be avoided. However, where unavoidable, ensure soil is peat free.
- Avoid pollutants and litter/debris within the Site and the surrounding area.

Appendix 1 Reference List and Useful Sources

- **Amphibian and Reptile Groups of the UK (2010)** Advice Note 5: Great Crested Newt Habitat Suitability Index. London, Amphibian and Reptile Groups of the UK.
- **British Standards (2012)** BS 5837: 2012 – Trees in relation to design, demolition and construction. London, British Standards Institution.
- **British Standards (2020)** BS 42020: 2013 - Biodiversity Code of Practice for Planning and Development. London, British Standards Institution.
- **British Standards (2021)** BS 8683: 2021 - Process for designing and implementing Biodiversity Net Gain. London, British Standards Institution.
- **CIEEM (2017a)** Guidelines for Preliminary Ecological Appraisals (2nd Edition). Winchester, CIEEM.
- **CIEEM (2017b)** Guidelines on Ecological Report Writing (2nd Edition). Winchester, CIEEM.
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Appendix 2 Planning Policy & Legislation

National Planning Policy Framework 2023

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2023) sets out the government's planning policies for England and how these are expected to be applied. The NPPF states that 'planning policies and decisions should contribute to and enhance the natural and local environment 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.

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF which includes the following:

- Distinguish between international, national and locally designated sites.
- Allocate land with the least environmental or amenity value.
- Maintain and enhance habitats and green infrastructure networks.
- Enhance natural capital at a catchment or landscape scale across local authority boundaries.
- Give weight to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty.
- Map and safeguard components of local wildlife-rich habitats and wider ecological networks, including wildlife corridors and stepping stones, and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species
- If significant harm 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.
- 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 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 Species Scientific Interest.

- 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 development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

The Wildlife and Countryside Act (WCA) 1981

The WCA is the primary piece of legislation relating to nature conservation in Great Britain. The Act is supplemented by provisions in the CRoW Act 2000 and the NERC Act 2006.

Part 1 of this act makes it an offence to intentionally or recklessly kill, injure or take any wild bird, to take, damage or destroy the nest of any wild bird while that nest is in use or being built, and/or to take or destroy an egg of any wild bird.

Part 1 also makes it an offence to intentionally or recklessly disturb any wild bird included in Schedule 1 of the act, and to take, damage, or destroy the nest of any wild bid included in Schedule ZA1. Schedule 5 list non-avian species that are afforded various protections under Sections 9.1a, 9.1b, 9.2, 9.4a, 9.4a (Wales), 9.4b, 9.4c, 9.5a and 9.5b.

Schedule 8 lists plant species that are protected from intentionally picking, uprooting or destroying under Section 13.

Schedule 9 lists non-native invasive plants for which it is an offence under Section 14 to plant or otherwise cause to grow in the wild any part of said plants.

The Conservation of Habitats and Species Regulations 2017

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (animals) as listed on Schedule 2:

- Deliberately capture, injure or kill any wild animal of a European protected species. • Deliberately disturb wild animals of any such species.
- Deliberately takes or destroy the eggs of such an animal.
- Damage or destroy a breeding site or resting place of such an animal. (Note: no intentionality is necessary to prosecute this activity).

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (plants) as listed on Schedule 5:

- Deliberately pick, collect, cut, uproot or destroy a wild plant of a European Protected Species.
- Be in position of or to transport said plant.

The Countryside and Rights of Way (CRoW) Act 2000

The CRoW Act applies only to England and Wales, and importantly adds the word “reckless” to the offence of damaging or destroying a place a bat uses for shelter or rest or disturbing a bat while using a roost.

Natural Environment and Rural Communities Act 2006

Section 40 of Part 3 of this act compels public bodies (local authorities, police, fire and health authorities, and utility companies) with exercisable functions within England to consider actions to be taken to conserve and enhance biodiversity in England—in particular to have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992, any relevant local nature recovery strategies, and any relevant species conservation strategy or protected site strategy (prepared by Natural England).

Section 41 of Part 3 of this Act ensures the publishing of a list containing species and habitat types that are of principle importance for the purpose of conserving or enhancing biodiversity in England.

Wild Mammals (Protection) Act 1996.

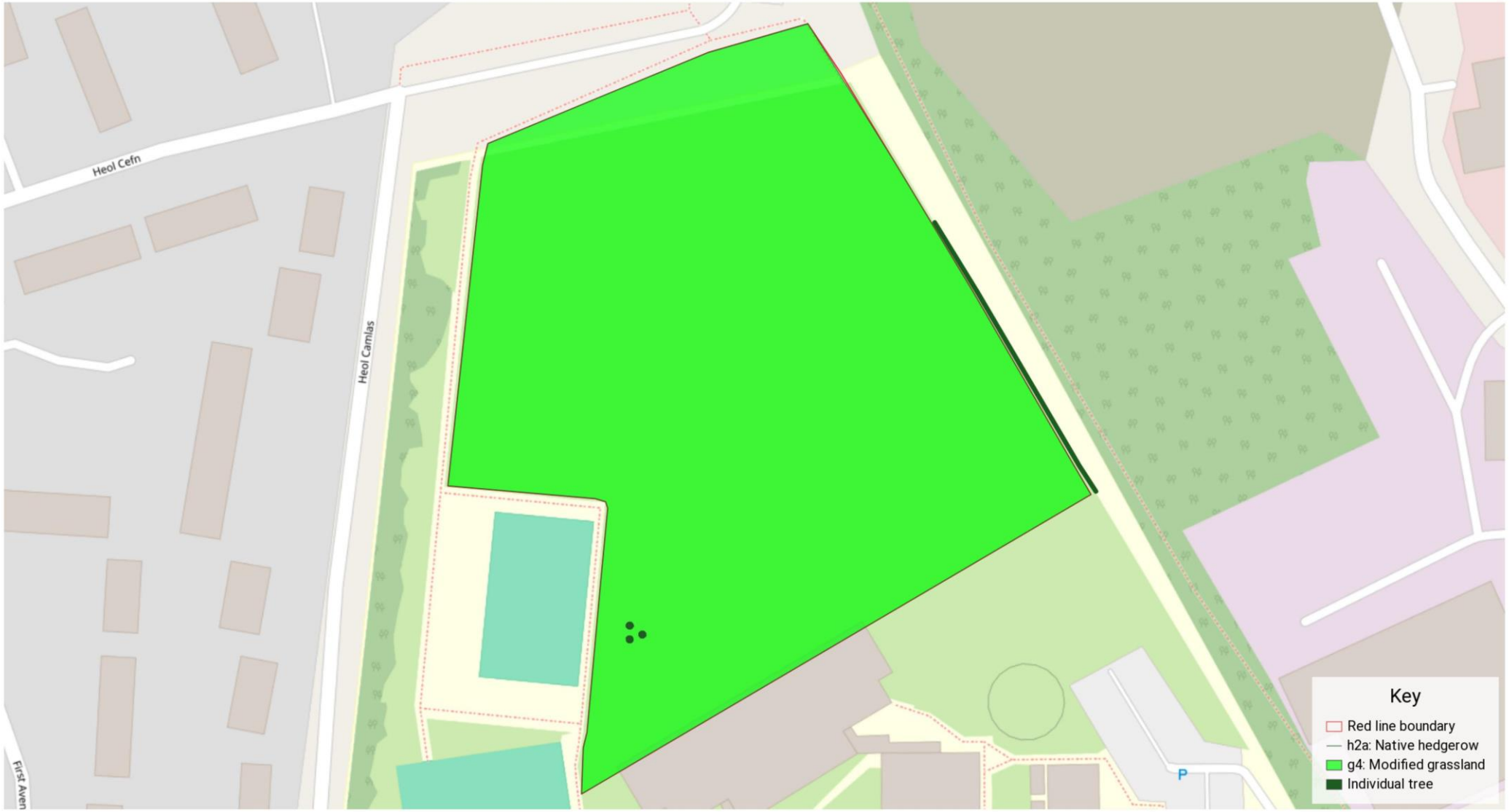
Under this legislation it is an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with the intent to inflict unnecessary suffering.

Protection of Badgers Act 1992

Under this legislation it is an offence to (or intend to, or to be reckless as to whether your actions would have these consequences):

- Wilfully kill, injure or take a badger (or attempts to do so).
- Damage or destroy any part of a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Obstruct access to a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Disturb a badger when it is occupying a sett. (Note: no intentionality is necessary to prosecute these activities).

Appendix 3 Habitat Plan of the Site



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Land App

20 m
Scale 1:1048 (at A4)

N

Appendix 4 Photographs



Photograph 1 – The modified grassland sports field and native hedgerow with trees, looking east.



Photograph 2 – The modified grassland in the northern section of the Site, looking south.

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Photograph 3 – Three individual trees. The central oak tree was the only tree larger than 7.5cm diameter at breast height.



Photograph 4 – Native hedgerow with trees on the eastern boundary of the Site.