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Preliminary Ecological Appraisal

Survey site:

1a Boundary Road, Haverhill, CB9 7YH

Client:

John Mayhew

Survey date:

10th June 2025

Project:

This report is prepared to inform a planning application with West Suffolk Council. The proposal is described as the construction of a two storey R&D building.

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion

Executive Summary

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Tables 1, 3 & 4 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
On site habitats	<p>The site contains hard standing, suspected lowland meadow, suspected other neutral grassland, mixed scrub and bramble scrub.</p> <p>Lowland meadow is listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006).</p>	<p>The proposed development will result in the loss of all habitats on site, comprising ~0.03ha of suspected lowland meadow, ~0.09ha of suspected other neutral grassland, and ~0.01ha of mixed scrub, and ~0.01ha of bramble scrub. This will result in a net loss in biodiversity at the site.</p>	<p>A Phase 2 botanical survey, by a suitably experienced botanist (FISC 4+ or equivalent), will be required to fully and accurately characterise the grassland community in the form of a combined NVC, UK Habs, Condition Assessment and Important Species Survey. This survey should be undertaken between May - August when plant species will be most visible.</p> <p>The proposed development will require a Biodiversity Net Gain assessment, to calculate the value of habitats on site and ensure the delivery of a minimum of 10% measurable biodiversity net gain.</p> <p>Separate arrangements may apply to priority habitats where it will not be possible to achieve BNG, whereby bespoke compensation must be designed and agreed with the LPA.</p>

Offsite habitats	<p>There are 3no priority habitats located within 2 km of the site. The closest priority habitat comprises deciduous woodland, located ~15m north from the site.</p> <p>The site is well connected to habitats in the immediate environs, via adjacent grassland and scrub habitats to the east and south, and Haverhill Golf Course to the north.</p>	<p>Due to the proximity of the site to nearby deciduous woodland, as well as grassland and scrub habitats immediately east and south, indirect effects such as pollution during construction could occur to adjacent habitats.</p>	<p>A Construction Ecological Management Plan (CEMP) will be required, outlining best practice measures to delineate the construction zone and to minimise the possibility of pollution and damage to nearby habitats during construction.</p>
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Contents

Introduction and Context.....5
 Introduction.....5
 Methodology5
 Limitations.....5
Results, Impacts and Recommendations.....6
 Site Location and Landscape Context.....6
 Habitats and Flora.....8
 Fauna.....12
Appendix 1: Proposed Development Plan20
Appendix 2: Site Location Plan21
Appendix 3: Habitat Survey Plan.....22
Appendix 4: Site Photographs.....23
Appendix 5: Baseline Condition Assessment.....25

Introduction and Context

Introduction

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author's knowledge, by any other consultancy.

Methodology

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024](#).

Limitations

Whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report is a preliminary assessment and does not provide a complete characterisation of the site. Nor does it represent a full botanical assessment. It assesses the likelihood of protected, notable and important habitats and species being present, based on a site and landscape level habitat value-based risk assessment. This is based upon the ecology, biology and known distribution of species as currently understood.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

All limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

Results, Impacts and Recommendations

Site Location and Landscape Context

Table 1: Site location and landscape context

Ecological Survey Factor	Conclusion, Impacts and Recommendations
Site Location	
<p>The site is located at National Grid Reference TL 68683 44451 and has an area of approximately ~0.14ha comprising hard standing, suspected lowland meadow, suspected other calcareous grassland, mixed scrub and bramble scrub. The site is located within a suburban setting, the southeastern edge of Haverhill. It is immediately surrounded by grassland and scrub to the east and south, and commercial infrastructure and the A143 to the west and north respectively. The wider landscape is characterised by suburban infrastructure, particularly to the north and west. Large, arable fields dominate the landscape to the east and south, with a scattering of woodland pockets throughout. Extensive grassland and woodland habitats, associated with Haverhill Golf Club, are located ~100m north from the site, beyond the A143. The site sits on Lewes Nodular Chalk Formation and Seaford Chalk Formation, and is overlain with lime-rich loamy and clayey soils with impeded drainage.</p> <p>A site location plan can be found in Appendix 2.</p>	
Priority Habitats and Designated Sites	
<p>Summary of Survey Findings</p>	<p><u>Priority habitats</u></p> <p>There are 3no priority habitats located within 2 km of the site. These comprise lowland calcareous grassland, deciduous woodland, ancient woodland, The closest priority habitat comprises deciduous woodland, located ~15m north from the site, which is separated by the A143.</p> <p>The site is well connected to habitats in the immediate environs, via adjacent grassland and scrub habitats to the east and south, and Haverhill Golf Course to the north. Field margins in nearby arable fields provide further connectivity. Beyond this, the landscape is dominated by residential and commercial infrastructure to the north and west, limiting connectivity.</p>

	<p><u>Designated sites</u> There is 1no statutory site within 2km of the site, described below:</p> <p><i>Table 1a: Statutory sites within 2km of the site</i></p> <table border="1" data-bbox="504 312 2033 483"> <thead> <tr> <th data-bbox="504 312 813 355">Designation</th> <th data-bbox="813 312 1720 355">Reason for designation</th> <th data-bbox="1720 312 2033 355">Distance from site</th> </tr> </thead> <tbody> <tr> <td data-bbox="504 355 813 483">Haverhill Railway Walks Local Nature Reserve (LNR)</td> <td data-bbox="813 355 1720 483"><i>“With much of its length now covered with scrub and larger trees, the railway provides a valuable wildlife corridor.”</i></td> <td data-bbox="1720 355 2033 483">~100m north</td> </tr> </tbody> </table> <p>The site lies within the impact risk zone for Trundley and Wadgell’s Woods, Gret Thurlow Site of Special Scientific Interest (SSSI). However, the proposed development type is not listed as a possible high risk with regard to this designation</p> <p>The presence of non-statutory designated sites within 2km of the site cannot be established without data from Suffolk Biodiversity Information Service and Essex Field Club. It is possible that habitats surrounding the sites are of designable quality and are therefore considered in a precautionary manner.</p>	Designation	Reason for designation	Distance from site	Haverhill Railway Walks Local Nature Reserve (LNR)	<i>“With much of its length now covered with scrub and larger trees, the railway provides a valuable wildlife corridor.”</i>	~100m north
Designation	Reason for designation	Distance from site					
Haverhill Railway Walks Local Nature Reserve (LNR)	<i>“With much of its length now covered with scrub and larger trees, the railway provides a valuable wildlife corridor.”</i>	~100m north					
Impacts	<p>No direct impacts to any designated sites will occur as a result of the proposed development, due to the small scale and low overall impact of the development from such sites (where known), alongside additional factors such as distance in combination with connectivity disrupting barriers.</p> <p>However, due to the proximity of the site to nearby deciduous woodland, as well as grassland and scrub habitats immediately east and south, indirect effects such as pollution during construction could occur.</p>						
Recommendations	<p>A Construction Ecological Management Plan (CEMP) will be required, outlining best practice measures to delineate the construction zone and to minimise the possibility of pollution and damage to nearby habitats during construction.</p>						

Habitats and Flora

The site survey was undertaken by Emma Platts BSc, Consultant Ecologist (Accredited Agent to Natural England Level 2 bat licence number 2018-33540-CLS-CLS)

Table 2: Survey weather conditions

Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
10/06/2025	20	55	50	14	None

Table 3: Habitats and Flora

Ecological Survey Factor	Conclusion, Impact or Recommendations
	<i>This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.</i>
Onsite habitats	
Summary of Survey Findings	<p><u>Developed land; sealed surface (u1b)</u> Brick hard standing forms a car park to the west of the site (Figure 1).</p> <p><u>Lowland meadow (g3a)</u> The principal habitat on site is grassland, which appears unmanaged and exhibits varying sward structure and species composition (Figure 2). No evidence of recent management, such as mowing or grazing, was evident. Additionally, no damage, disturbance or areas of bare ground were visible. Numerous ant hills were present throughout, indicating long habitat continuity.</p> <p>Field observations, supported by a review of aerial imagery, indicates that the grassland continues beyond the southern site boundary. Grassland formerly extended further east, but has since undergone natural succession due to prolonged lack of management, resulting in the encroachment and dominance of scrub species.</p>

	<p>The southern section of the site supports an open, tall sward, between 10-30cm, and exhibits higher botanical diversity (Figure 3 & 4). This area recorded ~12 vascular plant species per m², with numerous indicator species characteristic of a lowland meadow habitat, which is defined as a habitat of principle importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). The assemblage includes frequent false oat-grass <i>Arrhenatherum elatius</i>, red fescue <i>Festuca rubra</i>, pyramidal orchid <i>Anacamptis pyramidalis</i>, common knapweed <i>Centaurea nigra</i>, ox-eye daisy <i>Leucanthemum vulgare</i>, meadow vetchling <i>Lathyrus pratensis</i>, occasional sweet vernal grass <i>Anthoxanthum odoratum</i>, common vetch <i>Vicia sativa</i>, agrimony <i>Agrimonia eupatoria</i>, yarrow <i>Achillea millefolium</i>, lesser trefoil <i>Trifolium dubium</i>, and rare cocksfoot <i>Dactylis glomerata</i>, perennial rye grass <i>Lolium perenne</i>, ladies bedstraw <i>Galium verum</i>, daisy <i>Bellis perennis</i>, fairy flax <i>Linum catharticum</i>, goats beard <i>Tragopogon pratensis</i>, wild basil <i>Clinopodium vulgare</i> and rough hawkbit <i>Leontodon hispidus</i>.</p> <p>Species data was input into Modular Analysis of Vegetation Information System (MAVIS), which produced no strong or definitive match to a particular National Vegetation Classification (NVC) community. Given this ambiguity, and the presence of species indicative of lowland meadow, further botanical survey is recommended to confirm this habitat type.</p> <p>In accordance with the Biodiversity Metric condition assessment methodology, the grassland was assessed to be of good condition score (Appendix 5).</p> <p><u>Other neutral grassland, scattered scrub (g3c, 10)</u></p> <p>In contrast, the central and upper sections of the grassland support a taller, closed sward, between 50-100cm, with markedly lower species diversity (Figure 5 & 6), of less than 6 vascular plant species per m². The assemblage includes abundant false oat grass <i>Arrhenatherum elatius</i>, common knapweed <i>Centaurea nigra</i>, ox-eye daisy <i>Leucanthemum vulgare</i>, occasional common hogweed <i>Heracleum sphondylium</i>, and rare teasel <i>Dipsacus fullonum</i>. This area represents a species-poor community and forms a transitional zone from the more diverse sward to the south of the grassland. In addition, natural succession is evident, with scattered scrub becoming established throughout (Figure 7). Scrub species comprise blackthorn <i>Prunus spinosa</i>, bramble <i>Rubus fruticosus</i>, dogrose <i>Rosa canina</i>, and eared willow <i>Salix aurita</i>.</p> <p>Species data was input into Modular Analysis of Vegetation Information System (MAVIS), which produced no strong or definitive match to a particular National Vegetation Classification (NVC) community. However, given the observed transition and proximity to a more diverse area of grassland potentially qualifying as lowland meadow immediately</p>
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	<p>south, this area may represent a degraded form of lowland meadow in early successional form. As such, further botanical survey is recommended to confirm this habitat type.</p> <p>In accordance with the Biodiversity Metric condition assessment methodology, the grassland was assessed to have a poor condition score (Appendix 5).</p> <p><u>Mixed Scrub</u></p> <p>A lack of recent management has resulted in the succession of mixed scrub along the eastern peripheries of the site (Figure 8). Vegetation is dense, measuring up to ~2m in parts, with no glades or openings. The scrub boundaries are not abrupt and transition into the grassland, creating a buffer zone. Species are mostly native, comprising abundant blackthorn <i>Prunus spinosa</i>, frequent hawthorn <i>Crataegus monogyna</i>, occasional dogrose <i>Rosa canina</i>, bramble <i>Rubus fruticosus</i>, and rare dogwood <i>Cornus sanguinea</i>, eared willow <i>Salix aurita</i> and <i>Clematis sp.</i></p> <p>In accordance with the Biodiversity Metric condition assessment methodology, the mixed scrub was assessed to have a moderate condition score (Appendix 5)</p> <p><u>Bramble scrub</u></p> <p>A lack of recent management has resulted in the succession of bramble <i>Rubus fruticosus</i> scrub along the northern peripheries of the site (Figure 9). Vegetation is dense, measuring up to ~2m in parts, with no glades or openings. The scrub boundaries are not abrupt and transition into the grassland, creating a buffer zone.</p> <p>A habitat map can be found in Appendix 2.</p>
Impacts	<p>The proposed development will result in the loss of all habitats on site, comprising ~0.03ha of suspected lowland meadow, ~0.09ha of other neutral grassland, ~0.01ha of mixed scrub, and ~0.01ha of bramble scrub. This will result in a net loss in biodiversity at the site.</p>
Recommendations	<p>A Phase 2 botanical survey, by a suitably experienced botanist (FISC 4+ or equivalent), will be required to fully and accurately characterise the grassland community in the form of a combined NVC, UK Habs, Condition Assessment and Important Species Survey. This survey should be undertaken between May - September when plant species will be most visible.</p>

	Following full classification of habitats on site, the proposed development will require a Biodiversity Net Gain assessment, to calculate the value of habitats on site and ensure the delivery of a minimum of 10% measurable biodiversity net gain. Separate arrangements may apply to priority habitats where it will not be possible to achieve BNG, whereby bespoke compensation must be designed and agreed with the LPA.
Invasive/ Non-native species	
Summary of Survey Findings	No non-native invasive or otherwise problematic plants were recorded on site.
Impacts	None.
Recommendations	When designing the planting scheme for the new landscaped areas, the planting of any Schedule 9 invasive species, or any other non-native plants likely to escape into any semi natural habitats on site or adjacent must be avoided.

Fauna

Table 4: Fauna

Ecological Survey Factor	Conclusion, Impact or Recommendations
<i>This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.</i>	
Invertebrates	
Summary of Survey Findings	The site is not located within an influencing distance of an important invertebrate area. The site provides a range of structural and floristic features, notably species-rich grassland with flowering assemblages, varied sward heights and areas of early successional habitat, which offer high habitat value for invertebrates.
Impacts	The proposed development will result in the loss of ~0.14ha of grassland and bramble scrub. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to the presence of more extensive habitat locally, notably grassland and scrub habitats immediately east and south.
Recommendations	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates:</p> <ul style="list-style-type: none"> • Retention of scrub pockets • Planting of pollinator friendly, native grassland species characteristic of the local calcareous soils • Installation of insect hotels • Incorporation of log piles/dead wood • Incorporation of bee bricks into the fabric of the new building. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation
Roosting bats	
Summary of Survey Findings	A review of MAGIC database found no granted European Protected Species Licenses (EPSL) for bats within 2km of the site. There are no trees or buildings on site which could accommodate roosting bats.
Impacts	Bats are very unlikely to be roosting within the site and as such there are not anticipated to be any impacts on roosting bats as a result of the proposed development.

Recommendations	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	
Summary of Survey Findings	The grassland and scrub could be used by local bat populations for foraging and commuting. The habitats on site extend beyond the boundary to the east and south, forming a larger mosaic of grassland and scrub habitats which are likely to provide more extensive habitat. In addition, woodland habitats and watercourses associated with Haverhill Golf Club ~100m north of the site are likely to provide excellent foraging and commuting opportunities.
Impacts	The proposed development will result in the loss of ~0.14ha of grassland and scrub. Given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats. However, construction works and external lighting fixtures on the proposed development could include the use of lighting which could spill onto bat foraging and commuting habitat and could deter bats from using these areas.
Recommendations	A low impact lighting strategy will be adopted for the site during and post-development, which will be designed to incorporate the measures laid out in the latest (2023) bat lighting guide <i>Guidance Note 8 Bats and Artificial Lighting</i> ¹ .
Birds	
Summary of Survey Findings	No evidence of nesting birds was identified on the site. However, the scrub on site provides suitable shelter and could be used by common nesting birds. Due to the small size of the site, it is not considered to support a significant assemblage of protected or notable birds.
Impacts	The proposed development will result in the loss of all scrub on site. The loss of such habitats is likely to be inconsequential to local bird populations owing to the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.
Recommendations	Any vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

¹Bat Conservation Trust/Institute of Lighting Professionals (2023). Guidance Note 8 Bats and Artificial Lighting. <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

	<p>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests, depending on species present, until the young have fledged.</p> <p>The installation of a minimum of 2no bird boxes on will provide additional nesting habitat for birds. These can be placed on the proposed building. Bird boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.</p>
Reptiles	
Summary of Survey Findings	The grassland and scrub on site provides very good shelter, commuting and foraging opportunities for reptiles. Additionally, numerous brash piles were identified throughout the southern areas of the site (Figure 10), offering hibernation opportunities. The habitats on site extend beyond the boundary to the east and south, forming a larger mosaic of grassland and scrub habitats which are likely to provide more extensive opportunities. As such, the presence of reptiles on site cannot be discounted.
Impacts	The proposed development will result in the loss of ~0.14ha of grassland and scrub. The loss of such habitats will result in a reduction in reptile habitat, however, due to the presence of more extensive habitat in the form of unmanaged grassland and scrub immediately east and south, this is unlikely to result in the fragmentation of the local landscape. However, site clearance could result in the death or injury of reptiles, if present.
Recommendations	<p>A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:</p> <ul style="list-style-type: none"> • Site clearance will be undertaken outside of the reptile hibernation season (November to February) insofar as is possible. • A toolbox talk will be given to contractors regarding the possible presence of reptiles at the site. • A pre-commencement inspection of the site will be undertaken for reptiles. • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from the working area. • Any brash piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent reptiles from utilising these areas.

	<ul style="list-style-type: none"> • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
Amphibians	
<p>Summary of Survey Findings</p>	<p>A review of MAGIC database found no granted European Protected Species Licenses (EPSL) or Class Survey Licence Returns for great crested newts within 2km of the site. The site lies within an amber risk zone for great crested newts, indicating suitable habitat and likelihood of presence.</p> <p>No ponds are located on, or adjacent to, the site. A review of aerial imagery indicates the presence of 8no ponds within 500m of the site, of which 1no is located within 250m. The closest pond is located ~135m southeast from the site, which is well connected via unmanaged grassland and scrub. Remaining ponds are located within Haverhill Golf Club to the north of the site and are separated by the A143 which is likely to present a significant barrier to dispersal.</p> <p>The grassland and scrub on site provides very good terrestrial habitat for amphibians. Additionally, numerous brash piles were identified throughout the southern areas of the site, offering hibernation opportunities. The habitats on site extend beyond the boundary to the east and south, forming a larger mosaic of grassland and scrub habitats which are likely to provide more extensive opportunities. The wider landscape offers limited habitat for amphibians due to the surrounding urban infrastructure and intensively managed arable land, though the adjacent golf course is likely to provide more suitable habitats.</p> <p>Given the lack of suitably connected breeding ponds within 500m of the site, the presence of great crested newts on-site is considered unlikely. However, other common amphibians may be present on the site.</p>

Impacts	<p>The proposed development will result in the loss of ~0.14ha of grassland and scrub within 250m of a potential breeding pond, if great crested newts are present in the nearest pond. When completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a 'green risk score, which states: 'offence highly unlikely'. However, site clearance could result in the death or injury of amphibians, if present.</p>
Recommendations	<p>Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:</p> <ul style="list-style-type: none"> • Site clearance will be undertaken outside of the amphibian hibernation season (November to February) insofar as is possible. • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area. • Any brash piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. • In the unlikely event that a great crested newt is identified, works must cease and advice must be sought from a suitably qualified ecologist. <p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for amphibians:</p> <ul style="list-style-type: none"> • Creation of amphibian refugia using debris and brash from site clearance

Badger	
Summary of Survey Findings	No badger evidence was noted on, or within a 30m radius of, the site. The grassland and scrub on site offer foraging and commuting opportunities for badgers, albeit suboptimal due to the dominance of tall, unmanaged sward which is likely to inhibit movement and reduce the availability of ground level invertebrates. In addition, the site is enclosed almost entirely with chain link fencing which was noted to be in good condition, restricting access and connectivity. The wider landscape lacks extensive woodland habitats which are likely to host established populations. However, scrub and woodland pockets, as well as hedgerow networks associated with nearby arable land, will provide value. As such, the presence of foraging and commuting badgers on site is considered unlikely but cannot be discounted for transient periods.
Impacts	No works will be undertaken within 30m of a known badger sett. The proposed development will result in the loss of ~0.14ha of grassland and scrub. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.
Recommendations	A precautionary working method will be implemented during construction, including the following measures: <ul style="list-style-type: none"> • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Any pipework exceeding 150mm will be capped overnight. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • In the unlikely event that a badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist.
Riparian animals	
Summary of Survey Findings	There are no riparian habitats on or adjacent to the site.
Impacts	No impacts are anticipated on riparian animals as a result of the proposed development.
Recommendations	None.

Hazel dormouse	
Summary of Survey Findings	There are no suitable habitats on site to support hazel dormice
Impacts	No impacts are anticipated on hazel dormice as a result of the proposed development.
Recommendations	None.
Other e.g. small mammals	
Summary of Survey Findings	The grassland and scrub on site offer suitable foraging, sheltering and commuting opportunities for small terrestrial mammals such as rabbits and hedgehogs. The habitats on site extend beyond the boundary to the east and south, forming a larger mosaic of grassland and scrub habitats which are likely to provide more extensive opportunities. Although the connectivity of the site is limited with chain link fencing enclosing the site almost entirely, rabbits and hedgehogs are common to urban areas and can commute through small gaps in fencing. The wider landscape offers limited habitat for small mammals, however the adjacent golf course and hedgerows associated with nearby arable land are likely to provide value. As such, the presence of foraging, sheltering and commuting small mammals on site cannot be discounted.
Impacts	The proposed development will result in the loss of ~0.14ha of grassland and scrub. The loss of such habitats could result in a reduction in small mammal habitat but is unlikely to result in the fragmentation of the local landscape. However, construction activities could result in the death or injury of hedgehogs, if present.
Recommendations	A precautionary working method will be implemented during construction, including the following measures: <ul style="list-style-type: none"> • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Any pipework exceeding 100mm will be capped overnight. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any small mammals are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:</p> <ul style="list-style-type: none">• Creation of fence gaps (14cm x 14cm) to enable small mammals to travel freely through the site• Creation of brash piles• Installation of hedgehog houses in shady areas.
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Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Habitat Survey Plan



Appendix 4: Site Photographs



Figure 1: Hard standing



Figure 2: Grassland, viewing northeast



Figure 3: Grassland, viewing west



Figure 4: Suspected lowland meadow assemblage



Figure 5: Suspected neutral grassland, dominated by common knapweed and oxeye daisy



Figure 6: Suspected neutral grassland, dominated by false oat grass



Figure 7: Scattered scrub within grassland



Figure 8: Mixed scrub, eastern peripheries



Figure 9: bramble scrub, northern peripheries



Figure 10: brash piles

Appendix 5: Baseline Condition Assessment

Lowland meadow

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Y	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Y	
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	N	
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y	
E	Combined cover of species indicative of suboptimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	Y	
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Y	
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Y	
Number of criteria passed		5	
Condition Assessment Result		Condition Assessment Score	Score Achieved x/√
Non-acid grassland types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good (3)	√
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor (1)	

Other neutral grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	N	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	N	
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y	
E	Combined cover of species indicative of suboptimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	Y	
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	N	
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		N	
Number of criteria passed		2	
Condition Assessment Result	Condition Assessment Score	Score Achieved ×/√	
Non-acid grassland types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)		
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)		
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)		√

Mixed scrub

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Y	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	N	
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	Y	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Y	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	
Number of criteria passed			3
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/√	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	√	
Passes 2 or fewer criteria	Poor (1)		

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